

# *Northwest Training Range Complex*

## *Environmental Impact Statement/ Overseas Environmental Impact Statement*

*Final EIS/OEIS | September 2010  
Volume 3: Appendices H-J*



Commander  
United States Pacific Fleet  
c/o Pacific Fleet Environmental Office  
1101 Tautog Circle  
Silverdale, WA 98315



**Northwest Training Range Complex  
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**Volume 3  
EIS/OEIS**

**September 2010**

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1101 Tautog Circle  
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Written Comments



United States Navy  
Public Hearing Comment Form

Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below

All comments must be received no later than March 11, 2009, to be considered in the Final EIS/OEIS.

Name: Maria Aguilar

Organization/Affiliation: Private Citizen

Address: 1180 Talamage Rd.

City, State, Zip Code:  Ukiah, CA 95482

Comments: As a resident of Mendocino County I do not support this Navy underwater drilling project. I would like to have my children have a safe the natural beauty of our north coast waters. And also save all the living creatures that live in the Pacific Ocean.

Please don't destroy our beautiful waters by doing this underground drilling.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

March 3-09

Attention:  
Mrs Kimberly Kler  
NWTRC EIS

I am writing this letter as a shocked and concerned citizen living near the coast of Northern California

It's outrageous to even consider military testing of missile underwater explosives and sonar in our ocean!

Our coast is the migratory route of the Pacific Gray whale that would be threatened. All other ocean life would be adversely affected as well.

Your testing will cause irreversible damage.

Where is your compassion for the well being and future of all ocean life?

Stop this plan!!

Sincerely

Marti Aikman  
2205 Rd H  
Redwood Valley  
CA. 95470

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Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

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All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: Edwin Paul Allen Jr.

Organization/Affiliation: Hopland Potter's Guild

Address: P.O. Box 300, 1

City, State, Zip Code: Hopland, CA. 95492

Comments: the costal commission has to do a environmental study.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

\*Provide your mailing address to receive future notices about the Northwest Training Range Complex EIS/OEIS.

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ATTN: Mrs. Kimberly Kler - NWTRC EIS

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All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: John Alto

Organization/Affiliation: Commercial salmon and albacore fisherman

Address: PO Box 1112

City, State, Zip Code: Seaside, Or 97140

Comments: I have read through the EIS data. It seems to me that that most of the findings on potential adverse effects on marine life are based on incomplete data, or assumed marine animal responses. There is really no way to know with 100% certainty the real impact of the NWT complex. Assuming that there is little to no impact on marine life as the EIS suggests, in most cases, I am concerned about what the Navy is going to do to try to avoid conflict with fishing areas. During the summer months large amounts of albacore tuna fishermen are out on the fishing grounds off shore which would most likely be near Navy training exercises. Tuna trollers follow the schools of fish which may move several miles each day. If Naval exercises are being conducted and blocking off large areas of water this obviously would cause a decrease in catch for fishermen unable to move freely throughout the area. Further these fleets of small vessels drift at night, and even with modern electronics the increase in Naval traffic could cause a collision. There has also always been speculation of submarine activity possibly entangling trawl nets or cables and pulling vessels down. What is the Navy's position on this? Fishermen on the West Coast are already having a hard time, with decreased fishing opportunity, failing fish runs, and potential near shore marine reserves that would be no-take areas further diminishing fishing areas. Further adverse affects due to, increased maritime traffic, or underwater detonations damaging fish populations caused by expanded operations in the NWT complex could cause further economic hardship for these fishing families.

April 2, 2009

Mrs. Kimberly Kler  
NWTRC EIS/OEIS  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203,  
Silverdale, WA 98315-1101

Re: Northwest Training Range Complex Draft Environmental Impact Statement

**It is imperative that a No Action Alternative be taken with regard to the proposed expansion of navy marine training activities connected with the NW Training Range Complex.**

The navy should **NOT** conduct any sonar testing, should not be detonating explosives, using depleted uranium or dumping toxic pollutants in sensitive marine protection areas such as Admiralty Inlet, the Strait of Juan de Fuca, the Olympic National Sanctuary, or any coastal areas. These regions are delicate ecosystems which are literally attached to our own human communities: Whidbey Island, Port Townsend, Olympic Peninsula. We all are aware that a diverse population of threatened and endangered marine mammals, fish and sensitive coastal habitats are attempting to regain vitality in these areas. It is our responsibility to nourish the well-being and viability of these communities, which are integrally connected to human health, vitality and well-being.

**A No Action Alternative should be taken.**

This is something a 5-year old understands:

It is NOT acceptable for us to destroy, abuse, explode, kill, traumatize, fragment, disorient, massively degrade, force extinction upon, irreversibly toxify, abandon, or pollute beyond recognition gray whales and their young, Chinook salmon, sea bird nesting sites, feeding humpback whales, orca resident families and transient pods, pinnipeds, porpoise, dolphins, otters and any of the 29+ marine mammal species that live in the WA and OR coastal and inland protected waters.

It is obvious that depleted uranium should not be used in these training procedures. It should not be used anywhere. Depleted uranium irreversibly destroys human and animal DNA. This is permanent. Depleted uranium causes birth defects and cancer. Uranium has a half life of 4.5 billion years, so depleted uranium released into the environment will be a hazard for unimaginable timescales.

The EIS does not adequately address hazards and potential lethal effects of weapons detonation and sonar testing. As the Orca Network has explained in detail, recognition of the presence of marine mammals is difficult even in good conditions. It's almost impossible to reliably detect marine mammals visually or acoustically underwater or in rough weather, especially when compounded by training conditions. **A No Action Alternative should be taken.** If any testing does occur, a highly experienced whale biologist should be training the monitoring personnel.

Whales and many marine mammals depend on a long and short-range subtle vibrational communications and signals for their survival. This is how they "see" and connect with each other and their habitat. If we wish to torture a child, we could peel their eye lids back and force a close-range laser beam directly into their eyes, repeatedly, until the child loses consciousness and dies or is permanently disabled. Does the Navy understand the gravity of what it is proposing?

Sonar weapons and testing cause lethal injuries in the form of abrasions to animal ears and lungs, or trauma triggering panicked surfacing. Sonar testing can also cause sub-lethal injuries such as loss of hearing or orientation may effect behavioral changes that can also be long-term in nature and result in reduced survival. Injurious effects can harm individuals or populations, especially through repeated activity.

Sonar testing abuses and disorients whales and other marine mammals, and can potentially cause young whales to be separated from mothers. Explosives and weapons testing could cause permanent collapse of the interconnectivity of the mammal family groups and community.

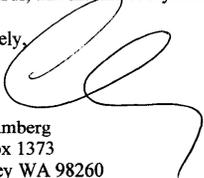
**A No Action Alternative should be taken.**

Disregard of cumulative impacts of everything from spent materiel to engine waste by multiple vessels and aircraft, all simulating wartime decision-making, certainly has a destructive effect on functioning marine ecosystems. In war, military forces can claim the luxury of focusing on short-term results of their decisions, if they are to defeat the enemy. While recognizing that current international relationships are conducive to preparation for war, it is precisely the need to consider the downstream effects of our decisions, down unseen generations, that is called for if we are to hold any hope of passing a livable world to future generations. More creative solutions for the problems now at our doorstep and looming dark on the horizon must be put forth, than to simply prepare for and risk returning to wartime thinking.

Can we call forth a bit of wisdom to live as a responsible part of our natural community, with a responsibility to it's continuity??

We can no longer afford to behave anthropocentrically, with an attitude of domination, superiority, and unquestioned aggression. We need to recognize the inherent rights and irreplaceable value of mammals, fish, birds, and marine ecosystems. Marine mammals, fish, birds, and marine ecosystems have values. Do we?

Sincerely,



Ann Amberg  
PO Box 1373  
Langley WA 98260  
Email: annamberg@whidbey.com

Naval Facilities Engineering Command Northwest  
Mrs. Kimberly Kler - NWTRC EIS  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101.

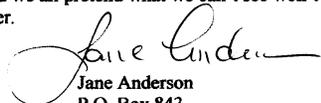
Dear Mrs. Kler,

I am responding to an article published in my local paper regarding the plans to expand Naval training in my state –

I am very much opposed to the Navy's proposal to expand training activities off the Oregon coast for the following reasons:

- In a time of an extreme economic downturn I see no logical reason to seek out reasons to spend even more taxpayers' dollars on defense. The defense department already takes way more than its share of federal revenue that would be better spent on education and other improvements.
- I find it particularly offensive that your "environmental" spokesperson, Ms. Murray, would say that these operations will not leave anything that will be "seen" so therefore it shouldn't matter to us – as if we're so ignorant we can be led to believe that just because we can't "see" the detrimental effects of something happening under the surface of the ocean, even though all signs would lead us to suspect otherwise, nothing is really happening that need concern us.
- Why would we be OK with putting depleted uranium in our oceans?
- We know that sonar effects marine life negatively, is possibly even lethal. Most people who care about the perpetuation of our marine resources would rather see no more sonar, and certainly not an escalation of it.
- And you are planning to use live missiles off the coast and we're to believe that no civilians will become "collateral damage" during these exercises? I don't think your track record on this is too reassuring.

I plan to contact my Representatives to express my concerns about this matter, and I think it is unconscionable that the Navy is refusing to allow extended time for public input on this matter – you have managed to be very quiet about this – no pun intended, but I think you're hoping it slips beneath the radar and we all pretend what we can't see won't really hurt us. I sincerely hope you will reconsider.

  
Jane Anderson  
P.O. Box 843  
Garibaldi, OR 97118

United States Navy  
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Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Depositing this form at the Comment Table before you leave tonight.
- 2) Submitting your comments via the project Web site at [www.NWTRRangeComplexEIS.com](http://www.NWTRRangeComplexEIS.com)
- 3) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler – NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than ~~February~~ <sup>March</sup> 11, 2009, to be considered in the Final EIS/OEIS.

Name: Jane Anderson

Organization/Affiliation: \_\_\_\_\_

Address: P.O. Box 843, 6002 Fir Ave.

City, State, Zip Code: Garibaldi, OR 97118

Comments: \_\_\_\_\_

① When you refer to the "socioeconomic" impact of your plan, why is there no mention of expenditure of citizens' tax dollars? You already get far more than your share of my taxes. I want to see my taxes used for something like education, health care, etc – not warmongering. I resent the Navy's assumption that it can dump weapons into our ocean – as if we can treat our oceans like a huge toilet. It's way beyond time to get past that mindset. ② Your plans for flooding our ocean with sonar is too premature – I'm convinced you do not really understand the potential threat to marine life.

Visit [www.NWTRRangeComplexEIS.com](http://www.NWTRRangeComplexEIS.com) for project information.

To the Naval Facilities Engineering Command NW  
1101 Tautog Circle, suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler – NWTRC EIS

March 11, 2009

Dear Mrs. Kler:

I live in Fort Bragg on the California north coast. I oppose the navy extending its training area along our coast. I urge you to prevent all government or private business interests from taking claim to any aspect of the ocean environment along the Northwest Pacific Coast.

The Fort Bragg/Mendocino area is a favorite tourist destination. People who visit our area come for the beautiful ocean views, the walks along the seaside bluffs, the fresh air and the quiet. We fear that the sight of naval vessels on the ocean, the sight and sound of overhead aircraft would destroy the appeal our economy depends on.

The nearly pristine ocean waters off the Northwest Coast of California, Oregon and Washington Northwest Pacific waters are perhaps one of the more environmentally intact ocean ecosystems that we have left in the world. No one should be granted the right to pollute ocean waters and inevitably harm creatures that dwell in coastal and pelagic waters. Organizations sometimes think they have a mandate, their over-riding rationale convince them that their actions are valid. Please don't let the health of the ocean be a tradeoff for the creation of new jobs or the testing of new weapons.

I am sure that you are aware that the giant kelp forests of the Northwest Pacific are home to myriad wonderful sea creatures. The grey whale makes its yearly travels between feeding and breeding grounds through the coastal waters of the Northwest Pacific. Besides pollution by chemical contaminants in the water and in whales' food sources from increased naval presence, the impacts of sonar testing are known to harm whale species. If for no other reason, don't add further negative pressure to the world's threatened fish populations by allowing the U.S. Navy to carry out this dreadful plan.

We understand that the Navy proposes to comply with all the federal rules and regulations. But can they guarantee that they will have no impact whatsoever on marine life, noise levels, and visual effects?

Those of us who live here love the ocean and the ocean life; we love the unspoiled landscapes, the quiet, and the exquisite views. We love to see the whales and the shore birds, to examine the tide pools, and to watch the sunset from the ocean bluffs.

We worry that the training will negatively affect our own lives as well as the economy, the local marine life, and the calm and peacefulness of our coastline.

Please do not conduct Naval training off of our coast.

Signed:

*Kim N. Anderson -  
13115 Verde Blvd, Mendocino, CA 95460*

cc: Congressman Mike Thompson, Fort Bragg City Council, Mendocino County Bd. of Supervisors

January 1, 2009

Naval Facilities Engineering Command Northwest  
Mrs. Kimberly Kler—NWTRC EIS/OEIS  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101

Dear Mrs. Kler,

Please send me two CD copies of the Draft Environmental Impact Statement/Overseas Environmental Impact Statement as announced in the 29 December Federal Register regarding the Northwest Training Range Complex expansion. Given the Federal Register instructed the public to mail in this request, I need to point out that the mail time to and from your office will take five to seven days. The first public hearing is 27 January, in Oak Harbor, some three weeks after I and others will receive the EIS/OEIS materials. Unfortunately, this is not an optimal time span to read and prepare informed questions for the public hearing. I would also ask why Seattle was passed over as a site for one of these hearings. Most interested regional NGOs are located in and near here. Please consider adding a Seattle hearing venue.

The mailing address for the CDs is:

Will Anderson  
2122 - 8<sup>th</sup> Avenue N, #201  
Seattle, WA 98109

Thank you,

*Will Anderson*



# ANIMAL WELFARE INSTITUTE

PO Box 3650 Washington, DC 20027-0150 www.awionline.org  
telephone: (703) 836-4300 facsimile: (703) 836-0400

January 2, 2009

Ms. Kimberly Kler  
Naval Facilities Engineering Command Northwest  
Attention: NWTRC EIS/OEIS  
1101 Tautog Circle  
Suite 203  
Silverdale, WA 98315-1101

Dear Ms. Kler:

On behalf of the Animal Welfare Institute (AWI), I am writing to request a copy of the Draft environmental Impact Statement/Overseas Environmental Impact Statement for the Northwest Training Range Complex (73 FR 79856). If available, I would appreciate receiving a hard copy and CD-ROM/DVD of the Draft EIS. If only available on a CD-ROM or DVD, that would suffice.

I would note that though the Department of the Navy has published a Federal Register notice announcing that it has prepared and filed with the U.S. Environmental Protection Agency the Draft EIS, it fails to provide any direction in its notice as to where the public can obtain a copy of the document. While the document is available for download at the website referenced in the Federal Register notice, there is no explicit reference to the availability of the document at that website. For those interested members of the public who may not be able to download and store the document on a home or office computer, they require an alternative means of obtaining a copy of the document. The Department of the Navy, therefore, must publish a notice advising the public where it can obtain a copy (hard copy or electronic copy) of the Draft EIS.

Thank you in advance for fulfilling this request. Please send the requested document to D.J. Schubert, Animal Welfare Institute, 3121-D Fire Road, PMB#327, Egg Harbor Township, NJ 08234.

Sincerely,

D.J. Schubert  
Wildlife Biologist

ANDREASEN  
P.O. BOX 237  
COBB MTN., CA 95426

Kimberly Kler -

Please send to me any  
information re: the U.S. Navy testing  
program in the Pacific Ocean.

The DEIS meeting set to be  
on April 13<sup>th</sup>.

The environmental impacts are  
in question along with the  
concern for the ocean wildlife  
and fishing families.

To create a transparent  
atmosphere re: both sides,  
your information from your  
stampout is very important.

Thank you,  
Milt Andreason



ANDREASEN  
P.O. BOX 237  
COBB MTN., CA 95426

Naval Facilities Engineering  
Command  
Northwest 1101 Tautog Circle Ste 203  
WA 98315

Kimberly Kler  
98315-1101

March 8, 2009  
900 University St apt 14M  
Seattle, WA 98101

Dear Ms Kler,  
Thank you so much for receiving  
our comments and we do love the U.S.  
navy.

It's just hard to believe that the  
Northwest Training Complex couldn't  
be positioned 100 or 200 miles farther  
west. My concern is for the whales  
and dolphins whose ears may be affected.  
They cannot change their patterns but  
humans can.

Since the navy is so much a part  
of our environment, I hope that  
the Navy could realize that whales  
and dolphins bring us great joy as a  
part of the Pacific too.

I love you both and if possible  
give a little. We can only love you  
more.

Sincerely,  
Terry Arntz

United States Navy  
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below

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Name: KATHY ASHER

Organization/Affiliation: \_\_\_\_\_

Address: \* 8959 N. STATE ST

City, State, Zip Code: REDWOOD VALLEY, CA 95470

Comments: We can't afford to destroy  
our environment or the animals  
on our planet. Please do not  
do this!

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

Feb 9, 2009

Sea Naval Engineers without  
Command,

I'm writing to oppose  
expansion of ~~that~~ <sup>that</sup> along the  
coast. No sonar, no bombs,  
no more destruction to marine  
mammals! ANCOE Bogus

## APPENDIX D

### CRITIQUE OF THE RISK ASSESSMENT MODEL EMPLOYED TO CALCULATE TAKES IN THE HAWAII RANGE COMPLEX SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT

David E. Bain, Ph.D.

#### Abstract

Rather than using a fixed received level threshold for whether a take is likely to occur from exposure to mid-frequency sonar, the Navy proposed a method for incorporating individual variation. Risk is predicted as a function of three parameters: 1) a basement value below which takes are unlikely to occur; 2) the level at which 50% of individuals would be taken; and 3) a sharpness parameter intended to reflect the range of individual variation. This paper reviews whether the parameters employed are based on the best available science, the implications of uncertainty in the values, and biases and limitations in the model. Data were incorrectly interpreted when calculating parameter values, resulting in a model that underestimates takes. Errors included failure to recognize the difference between the mathematical basement plugged into the model, and the biological basement value, where the likelihood of observed and predicted takes becomes non-negligible; using the level where the probability of take was near 100% for the level where the probability of take was 50%; and extrapolating values derived from laboratory experiments that were conducted on trained animals to wild animals without regard for the implications of training; and ignoring other available data, resulting in a further underestimation of takes. In addition, uncertainty, whether due to inter-specific variation or parameter values based on data with broad confidence intervals, results in the model being biased to underestimate takes. The model also has limitations. For example, it does not take into account social factors, and this is likely to result in the model underestimating takes. This analysis has important management implications. First, not only do takes occur at far greater distances than predicted by the Navy's risk model, the fact that larger areas are exposed to a given received level with increasing distance from the source further multiplies the number of takes. This implies takes of specific individuals will be of greater duration and be repeated more often, resulting in unexpectedly large cumulative effects. Second, corrections need to be made for bias, and corrections will need to be larger for species for which there are no data than for species for which there are poor data. Third, the greater range at which takes would occur requires more careful consideration of habitat-specific risks and fundamentally different approaches to mitigation. The value of the model is that it provides a focus for future research on the effects of noise on marine mammals. In particular, the sensitivity analysis indicates the primary need for data is determining response probabilities of a wide range of species when exposed to received levels near the level at which 50% of individuals respond.

## Introduction

The Navy distinguishes two types of takes: Level A, in which there is immediate injury or death; and Level B, in which there is no immediate injury, but cumulative exposure may lead to harm at the population level. However, in certain contexts, Level B harassment may lead to Level A takes through indirect mechanisms.

The population effects of Level A takes on populations are relatively easy to assess, as individuals that are killed are obviously removed from the population, and those that are injured are more likely to die whenever the population is next exposed to stress.

Calculating the population effects of Level B takes is a topic of contemporary research (Trites and Bain 2000). For example, Bain (2002a) explored using energetic consequences of behavior change in conjunction with population dynamics models to estimate population effects of Level B takes. Stress concurrent with Level B harassment would have additional population consequences. Stress may occur in the absence of behavioral change, or the absence of change in significant behavioral patterns such as foraging or nursing, or exclusion from optimal habitat. Lusseau et al. (2006) concluded disturbance caused a decline in and posed a significant threat to the survival of the bottlenose dolphin population in Doubtful Sound, New Zealand. While they noted vessel strikes were occurring (Level A takes), cumulative behavioral effects (Level B takes) were believed to be the primary threat to the population.

Models relating acoustic exposure to takes thus are not sufficient by themselves to interpret the effects of noise on populations. It is likely that different magnitudes of effect, whether physical harm, behavioral change that leads to physical harm, disruption of significant behavioral activities, or behavioral changes that pose negligible risk to populations when they occur only rarely but can become significant when exposure is prolonged or repeated, will have different relationships to noise. The different magnitudes of takes will have different population consequences. Thus it will be challenging to synthesize results of multiple studies, as different measured endpoints may belong on different curves relating them to noise, and different endpoints will have different population consequences. Further, the population consequences can depend on the health of the population (Bain 2002a). All these factors need to be considered when evaluating the environmental consequences of exposing marine mammals to noise.

## Unconditional effects

Temporary Threshold Shifts in captive marine mammals are commonly used as an index of physical harm (e.g., Nachtigall et al. 2003, Finneran et al. 2002 and 2005, Kastak et al. 2005). Limiting experimental noise exposure to levels that cause temporary effects alleviates ethical concerns about deliberately causing permanent injury. However, repeated exposure to noise that causes temporary threshold shifts can lead to permanent hearing loss. In fact, chronic exposure to levels of noise too low to cause temporary threshold shifts can cause permanent hearing loss. Animal models (e.g., rats, cats,

monkeys, chinchillas) have been used for tests of noise causing permanent physical harm (Henderson et al. 1991, Gao et al. 1992, Blakeslee et al. 1978, Clark 1991). Damage to hearing from noise exposure is an example of unconditional injury from noise. OSHA (2007) requires limiting human exposure to noise at 115 dB above threshold (equivalent to 145 dB re 1  $\mu$ Pa for killer whales, Szymanski et al. 1999) to 15 minutes.

Stress reactions are another available index (e.g., Romano et al. 2004). Ayres (personal communication) found evidence suggesting that whale watching results in increased levels of stress hormones in wild killer whales.

## Conditional effects

Changes in behavior resulting from noise exposure could result in indirect injury in the wild. A variety of mechanisms for Level B harassment to potentially lead to Level A takes have been identified.

Gas bubble lesions have been observed in beaked whales (Jepson et al. 2003, Fernandez et al. 2005, Cox et al. 2006). A variety of mechanisms have been proposed for this. While some have proposed these may be due to acoustically mediated bubble growth, and hence are an unconditional consequence of noise exposure (Crum and Mao 1996), it is more likely that these result from decompression sickness. That is, changes in dive behavior may prevent clearance of nitrogen gas from the body, resulting in larger bubbles than would occur in undisturbed dive patterns. One possible change is that beaked whales may remain submerged for an unusually long period of time, and then rapidly ascend. The rapid ascent is a change in behavior that prevents nitrogen from remaining in solution in the blood. Zimmer and Tyack (2007) questioned whether the rapid ascent mechanism would actually result in lesions, and proposed another behavior change that might occur is interruption of deep dives. Deep dives allow the lungs to collapse, preventing nitrogen from reaching the body. Further, a series of rapid breaths at the surface can be used to clear nitrogen absorbed under pressure. Interruption of the normal surface interval can allow nitrogen to build up over time. Changes in depths of dives are of more concern than rapid ascents as this mechanism would be applicable to a wide range of species, while if the rapid ascent mechanism is involved, it would be primarily a concern for deep diving species (Zimmer and Tyack 2007).

While failure to flee may lead to injury in beaked whales, flight may lead to injury in other species. Minke whales have been found stranded after sonar exercises (NOAA and Navy 2001). A minke whale was observed traveling at high speed during exposure to mid-frequency sonar in Haro Strait in 2003. It is easy to see how such behavior would lead to stranding when a beach is located in front of the whale, as minke whales lack echolocation and visibility is limited underwater. Exhaustion from rapid flight leading to heart or other muscle damage (Williams and Thorne 1996) could also account for increased mortality such as was observed in harbor porpoises following sonar exercises in Juan de Fuca and Haro Straits in April and May of 2003. Harbor porpoises, in contrast to

Dall's porpoises, rarely engage in sustained high energy activities such as rapid swimming or bow riding, and hence are less adapted to long distance flight responses.

Even successful flight may have negative survival consequences. In the absence of disturbance, individuals will tend to occupy optimal habitat. Displacement from optimal habitat will have consequences that will depend on the duration of the displacement, the quality of the alternate habitat, and the condition of the individuals at the time of displacement.

Separation of individuals from social units is another consequence of noise exposure that may lead to mortality. In 2003 in Haro Strait, some killer whales responded to mid-frequency sonar by seeking shelter behind a reef. Others chose to flee, resulting in splitting of a pod that historically spent all of its time together as a single unit. While no deaths resulted from this particular incident, other killer whales have been observed separated from their social units resulting in death prior to reunion or requiring human intervention to restore the individual to its social unit (Schroeder et al. 2007).

Temporary threshold shifts may conditionally lead to harm. Impaired hearing ability increases vulnerability to ship strike. In 2003, blunt force trauma was identified as a cause of death in the investigation of harbor porpoise mortalities following exposure to mid-frequency sonar in Washington State. A minke whale was nearly struck by a research vessel in the area where one had been observed fleeing mid-frequency sonar exposure. These species are familiar with boats in that area, and normally avoid them by a wide margin when they can hear them coming.

Impaired auditory ability may also increase predation risk. For example, Dahlheim and Towell (1994) reported an attack by killer whales on white-sided dolphins. The approach by the whales went undetected due to the noise of the research vessel. Further, impaired hearing may impair foraging ability and communication (Bain and Dahlheim 1994).

#### The Risk Function Model

The risk function uses three parameters.  $B$  is the received level at which the most sensitive individuals start to respond with changes in significant behaviors such as foraging.  $K$  is the difference in received level between the level at which half of individuals respond and the level at which the most sensitive individuals respond. That is,  $B+K$  is the level at which 50% of individuals respond.  $A$  is a shape parameter that attempts to capture the variability in responsiveness of the population. That is, are essentially all the individuals the same and the bulk of them become responsive when the received level is near  $B+K$ , in which case a simple threshold model would provide a good approximation, or is there a lot of variation in the population, in which case many individuals become responsive when received levels are near  $B$ ?

The model is based on the hypothesis that some individuals start to respond at lower levels than others. It anticipates that some individuals will hold out until very high levels

before responding. The model includes parameters that allow it to be applied appropriately to species with differing noise tolerance. However, the Navy used one set of parameter values to predict the responses of all species. This paper reviews the accuracy of the choice of parameter values, the implications of using the wrong parameter values, and whether the model makes unbiased predictions when uncertainty in the parameter values exists.

#### Limitations

Like many models, the risk model has limitations. It fails to take into account social interactions. For example, the model anticipates that individuals may move away from a source at different exposure levels, but fails to recognize that this would result in individuals becoming separated from the group. This is likely to lead to the curve becoming asymmetrical, with the "holdouts" responding to the behavior of their schoolmates rather than the sound. As the area exposed to lower levels of noise is larger than the area exposed to higher levels of noise, this would result in more individuals being affected than the model predicts for social species.

The model does not account for multiple sources. Kruse (1991), Williams and Ashe (2007) and Bain et al. (2006) noted that killer whale responses to vessels varied with the number of vessels present. The magnitude of certain responses increased on the order of 10% per source, although Williams and Ashe (2007) noted that large numbers of sources could result in changes in the opposite direction of small numbers of sources, potentially canceling out the effect. That is, rather than a risk function that simply identifies how likely a response is to occur, one that takes into account the magnitude of the response would be ideal.

Pingers have been used to reduce entanglement in gillnets. Kraus et al. (1997) were able to reduce entanglement of harbor porpoises by 90%. Gearin et al. (1996, 2000) used more pingers, and were able to reduce entanglement by 95%. While this could be accounted for by the fact that more pingers increase the minimum sound level at the net (Bain 2002b), Laake et al. (1997, 1998, 1999) found porpoises typically remained much farther from the net than the spacing between pingers, even after the avoidance response declined due to habituation. Thus, the effect of multiple sources seems larger than the effect of fewer sources. Pingers have also been successful in protecting other species from nets (Barlow and Cameron, 1999; Cameron 1999, Stone et al. 1997).

In addition to quantitative changes in response to multiple sources, there may be a qualitative change in the response. For example, noise is used in drive fisheries of many odontocete species to cause stranding or near strandings. That is, multiple sources were used to displace individuals in a particular direction, and the consequences (stranding) were more serious than displacement from the source alone as would result from exposure to a single source.

The risk to the population of qualitatively different responses varies not only with the type of response, but the circumstances. If the response is going ashore, fatalities are highly likely to result. If the response is slowly moving away for a short period of time, no fatalities are likely to result. However, if the response is to slowly move away from a prime feeding area for an extended period of time, and the population is food limited, fatalities may result, and the number is likely to be related directly to the duration of exclusion from the feeding area, and only indirectly to the cumulative sound energy received.

Finally, the model assumes that marine mammals behave independently from each other. This is not likely to be the case. Even species that are normally solitary, like harbor seals, have been observed to school in response to high energy noise (personal observation). To remain a member of a group, individuals must remain in geographic proximity to each other. As more sensitive individuals move away, others who are not sufficiently disturbed by the sound itself would need to move as well to remain members of the group. The result is likely to be a step function at moderate exposure levels rather than the gradual increase in risk predicted by the model. The result would be that risk is underestimated. The proportion of individuals necessary to lead all individuals to respond in a similar manner to noise is likely to vary among species, and propensity to mass strand may be a good predictor of the importance of this effect.

#### Datasets

The Navy chose to rely upon three datasets.

##### *Captive cetaceans*

Studies of captive marine mammals provide an excellent setting for identifying direct effects of sound. E.g., one of the datasets employed by the Navy consists of studies relating short-term exposure of bottlenose dolphins and belugas to high levels of noise to Temporary Threshold Shifts. The Navy (Dept. Navy 2008b, p 3-7) noted aggressive behavior toward the test apparatus, suggesting stress was another consequence of the test (see also Romano et al. 2004). Such effects would be unconditional results of noise exposure.

However, extrapolation of the level at which aggression was observed to the level at which behaviorally mediated effects might occur in the wild is problematic, as this depends on how well trained the subjects were. For example, the Navy has been a leader in training dolphins and other marine mammals to cooperate with husbandry procedures. Tasks like taking blood, stomach lavage, endoscopic examination, collection of feces, urine, milk, semen and skin samples, etc. once required removing individuals from the water and using several people to restrain them. With training, painful and uncomfortable procedures can be accomplished without restraint and with a reduction in stress that has significantly extended lifespans of captive marine mammals (Bain 1988).

That is, the absence of avoidance or aggressive behavior does not imply an absence of physical harm, much less the absence of potential for behavior changes that may lead to indirect harm.

Physical harm may occur in the wild without avoidance responses as well. Yano and Dahlheim (1995) found killer whales continued to predate on longlines despite being physically injured by deterrents such as gunshots. Reeves et al. (1996) reviewed other examples from fishery interactions of injurious approaches to deterrence failing.

If belugas and bottlenose dolphins are like killer whales, and the 50% risk level is about 15 dB below the 50% risk level for behavioral change in trained animals (see below), this would put their value around 170 dB re 1  $\mu$ Pa. Even this is likely to be an overestimate, as boat motors with a source level of 165 dB re 1  $\mu$ Pa can cause behavioral changes in bottlenose dolphins (Nowacek et al. 2001.) This new value, 170 dB re 1  $\mu$ Pa, averaged with the other Navy datasets, would drop the average 50% risk level to 160 dB re 1  $\mu$ Pa.

##### *Killer whales*

The second dataset is killer whales exposed to mid-frequency sonar from the USS Shoup in Haro Strait, Washington, in May, 2003. The level quoted in the HRC SDEIS (Dept. Navy 2008b) is an estimate of the received levels experienced when mid-frequency sonar was transmitted from about 3 km away. This level caused major behavioral changes in 100% of exposed whales (Risk=1 for Level B takes of a magnitude that in other contexts or species could lead indirectly to physical harm), but was not to be believed to have caused Level A takes (the whales did not strand, and received levels were estimated to be too low to have caused threshold shifts, NMFS OPR 2005) in any individuals (Risk = 0). However, much more data are available from the May, 2003 Shoup incident. Behavioral changes were first observed at 47 km (where the received level was estimated to be 121 dB). The behavioral response was tail slapping by about 25% of the individuals observed, which is consistent with observed responses to vessel noise at a similar level. At a distance greater than 22 km, the direction of travel changed away from a feeding area, and hence foraging behavior was disrupted. At this distance, the received level may have increased to the neighborhood of 135 dB re 1  $\mu$ Pa with about 6 dB of reduced spreading loss and 6 dB reduced absorption. This would be comparable to a vessel traveling at low speed approaching to within 10 m, which is very difficult to accomplish without causing whales to turn away. 100% of killer whales responded by abandoning their feeding ground and moving away from the noise source at this received level. While vessels cause diversion from straight-line paths, they have not been observed to displace killer whales from feeding areas (vessels have been observed to displace killer whales from resting areas, but this is likely mediated by presence rather than noise, as the effect is observed in the presence of silent vessels, Trites et al. 1995). Thus it is not surprising that a qualitatively different behavioral response was exhibited. The peak exposure level was estimated to be 175 dB re 1  $\mu$ Pa (HRC SDEIS, although NMFS noted that estimated levels tended to overestimate measured levels by 1-10 dB [NMFS OPR 2005], so the peak exposure level may have been only 165 dB). In addition to changing

travel patterns, the pod split, with approximately 50% of the pod continuing to shelter in an acoustic shadow zone, and the other 50% fleeing at high speed. Such behavior has not been observed in the presence of vessels alone. It should be emphasized that 100% of killer whales exhibited a disruption of a significant life process, foraging, at a level that may have been less than 135 dB re 1  $\mu$ Pa, in contrast to the value used in the SDEIS, 169.3 dB re 1  $\mu$ Pa for a 50% response.

Additional datasets are available for killer whale responses to noise. E.g., in Bain and Dahlheim's (1994) study of captive killer whales exposed to band-limited white noise in a band similar to that of mid-frequency sonar at a received level of 135 dB re 1  $\mu$ Pa, abnormal behavior was observed in 50% of the individuals. This is far lower than the level observed in bottlenose dolphins. In addition, Bain (1995) observed that 100% of wild killer whales appeared to avoid noise produced by banging on pipes (fundamental at 300 Hz with higher harmonics) to the 135 dB re 1  $\mu$ Pa contour. This indicates the difference between wild and captive killer whales (non-zero risk in captive marine mammals might correspond to 100% risk in wild individuals of the same species), as well as implying that risk of 100% may occur by 135 dB re 1  $\mu$ Pa for this genus in the wild.

Further, killer whales begin responding to vessel traffic at around 105-110 dB re 1  $\mu$ Pa with minor behavioral changes. By 135 dB re 1  $\mu$ Pa, disruption of foraging may approach 100%. Received level appears to be more important than proximity (Bain 2001). For risk to increase from near 0 at 105 dB re 1  $\mu$ Pa to near 100% by 135 dB re 1  $\mu$ Pa, with A=10, the 50% risk level would need to be about 120 dB re 1  $\mu$ Pa. Substituting 120 for 169 dB re 1  $\mu$ Pa reduces the average level for 50% risk by about 16 dB to 144 dB re 1  $\mu$ Pa. Substituting 135 dB re 1  $\mu$ Pa would reduce the average by 8 dB to 157 dB re 1  $\mu$ Pa.

Finally, the Navy's characterization of the killer whale dataset is incorrect. They indicate the effects observed in the presence of mid-frequency sonar in Haro Strait were confounded by the presence of vessels. However, the effects of vessels on killer whales have been extensively studied (e.g., Kruse 1991, Williams et al. 2002ab, Bain et al. 2006). Behavioral responses attributed to mid-frequency sonar are qualitatively different than those observed to vessels alone. While the observations are anecdotal, they were not inconsistent. The sonar signal was blocked from reaching the whales with full intensity by shallow banks or land masses during three segments of the observation period. The "inconsistencies" can be attributed to differences in behavior depending on whether there was a direct sound path from the Shoup to the whales. It should be noted there was extensive study of this population prior to exposure (see Bigg et al. 1990 and Olesiuk et al. 1990 for a description of typical research protocols), as well as extensive post-exposure monitoring (e.g., Bain et al. 2006).

#### *Right whales*

Similarly, the right whale data relied upon are of limited value. While they clearly illustrate that the value at which 50% of animals are influenced is below 135 dB re 1  $\mu$ Pa

and are therefore helpful in determining the upper limits of the B+K value, they lack sufficient low level exposures needed to fit the low end of the curve. As with killer whales, the Navy misused the data. They averaged values which resulted in 100% response. Thus the average value exceeds the level resulting in a 50% risk.

Right whales exposed to alerting devices consistently responded when received levels were above 135 dB re 1  $\mu$ Pa. Due to the small sample size (six individuals), it is unclear whether this is close to the 50% risk, the 100% risk level, or both. These data do not allow identification of B, as lower exposure levels were not tested. In mysticetes exposed to a variety of sounds associated with the oil industry, typically 50% exhibited responses at 120 dB re 1  $\mu$ Pa. Thus right whales may be similar to killer whales.

The consequences of using incorrect values can be seen by comparing the observed results of the right whale exposures to alert signals (Nowacek et al. 2004) with those predicted by the Navy model. Using the values of B=120, K=45, and A=10 in the HRC SDEIS (Dept. Navy 2008b), the probability of responses for the exposed whales are shown in column two of Table 1. The formula underestimated the number of takes by a factor of over 500. The Navy proposed using A=8 for mysticetes in recognition of this, and the results are shown in column 3. While improved, the model still underestimated takes by a factor of 183. One could try B=105 and K=15. Using A=10 provides a reasonable approximation, overestimating takes by 20% (column 4). A better approximation is provided by A=2, which predicts the number of takes within 2% (column 5). While the probability of all four right whales exposed to the highest alert signals responding is much less than one in a billion based on the Navy model and allows one to unequivocally reject the Navy's choice of parameter values as applying to that species, numerous other combinations of parameter values would fit the data as well as the values shown in the table here. Substituting 120 dB re 1  $\mu$ Pa for 139 dB re 1  $\mu$ Pa results in an average 6 dB lower at 159 dB re 1  $\mu$ Pa.

Table 1. Risk for right whales (model vs. observed)

Received Level (dB re 1 $\mu$ Pa)	RISK B=120,K=45,A=10	RISK B=120,K=45,A=8	RISK B=105,K=15,A=10	RISK B=105,K=15,A=2
Responded				
148	0.008647	0.022021	0.999973	0.891548
143	0.001217	0.004641	0.999908	0.86521
137	5.92E-05	0.000415	0.999488	0.819864
135	1.7E-05	0.000153	0.999026	0.800039
133	4.06E-06	4.86E-05	0.998059	0.777052
No Response				
134	8.52E-06	8.79E-05	0.998633	0.788974
Error Factor	502	183	0.83	1.01

*Datasets not considered*

The Navy incorrectly concludes that additional datasets are unavailable. In addition to the other killer whale datasets mentioned above, data illustrating the use of acoustic harassment and acoustic deterrent devices on harbor porpoises illustrate exclusion from foraging habitat (Laake et al. 1997, 1998 and 1999, Olesiuk et al. 2002). Data are also available showing exclusion of killer whales from foraging habitat (Morton and Symonds 2002), although additional analysis would be required to assess received levels involved. The devices which excluded both killer whales and harbor porpoises had a source level of 195 dB re 1  $\mu$ Pa, a fundamental frequency of 10 kHz, and were pulsed repeatedly for a period of about 2.5 seconds, followed by a period of silence of similar duration, before being repeated. Devices used only with harbor porpoises had a source level of 120-145 dB re 1  $\mu$ Pa, fundamental frequency of 10 kHz, a duration on the order of 300 msec, and were repeated every few seconds. Harbor porpoises, which the Navy treats as having a B+K value of 120 dB re 1  $\mu$ Pa (with A large enough to yield a step function) in the AFAST DEIS (Dept. Navy 2008a), 45 dB lower than the average value used in the HRC SDEIS, may be representative of how the majority of cetacean species, which are shy around vessels and hence poorly known, would respond to mid-frequency sonar. Even if harbor porpoises were given equal weight with the three species used to calculate B+K, including them in the average would put the average value at 154 dB re 1  $\mu$ Pa instead of 165 dB re 1  $\mu$ Pa.

Harbor porpoise responses to various acoustic devices have been documented in captivity and the wild. Pingers with a source level of 130 dB re 1  $\mu$ Pa displace wild harbor porpoises to a distance of at least 100-1000 m, where the received level was likely in the

neighborhood of 80-90 dB re 1  $\mu$ Pa. Studies of harbor porpoises in captivity also found responses to acoustic deterrent devices, but could not be tested at such distances due to limitations in facility size (Kastelein et al. 1997, 2001). This is another example of how studies with captive cetaceans can produce misleading results. Airmar devices with a source level of 195 dB re 1  $\mu$ Pa displaced an estimated 95% of harbor porpoises to a distance of 3 km. While received levels were not measured, they could have been in the neighborhood of 120-130 dB re 1  $\mu$ Pa. These findings are well modeled with a B value of 70 dB re 1  $\mu$ Pa, a K value of 25, and an A value of 4.

Many species are poorly known, due in part to difficulties approaching them from boats and in part because they do not fare well in captivity. Species that may exhibit vulnerability to noise comparable harbor porpoises include many species of *Stenella* (e.g., striped dolphins), beaked whales, sperm whales (which are best studied from sailboats rather than motorized vessels, and show disruption of foraging at levels below 130 dB re 1  $\mu$ Pa, Jochens et al. 2006), and numerous poorly known species. In contrast, Dall's porpoises are known to bow ride, and appear far less easily disturbed by noise from airguns than harbor porpoises (Calambokidis et al. 1998). They may be an example of a relatively noise tolerant species like the bottlenose dolphins included in the SDEIS.

There are also data that are based on other noise sources. E.g., effects of vessel traffic on whale and dolphin behavior could be interpreted in terms of received levels. While engine noise tends to be continuous rather than intermittent like sonar, in a reverberant environment, mid-frequency sonar may be received as a nearly continuous sound (personal observation).

Likewise, records of marine mammal responses to broadband noise sources like airguns are also likely to be informative. While it may be difficult to extrapolate levels resulting in takes due to potential differences in perception of broadband and narrowband signals, and pulses rather than continuous sounds, they can give an idea of the range of intra-specific and inter-specific variation in B and K values and be applicable to determining the A parameter.

E.g., Calambokidis et al. (1998) found harbor seal responses to airguns typically consisted of visually orienting at received levels from 143 to 158 dB re 1  $\mu$ Pa and moving away at received levels from 158 dB to 185 dB re 1  $\mu$ Pa. However, one harbor seal oriented at 163 dB re 1  $\mu$ Pa rather than moving away. The highest measured received levels for Dall's porpoises were about 170 dB re 1  $\mu$ Pa, but only about 142 dB re 1  $\mu$ Pa for harbor porpoises. Similarly, the highest received levels measured for California sea lions were about 180 dB re 1  $\mu$ Pa, but only about 160 dB re 1  $\mu$ Pa for Steller sea lions. The highest measured received level was also 160 dB re 1  $\mu$ Pa for gray whales. That is, closely related species pairs may differ in their responsiveness to noise by over 20 dB, and taxonomically diverse species pairs may exhibit similar responsiveness.

TTS data similar to those available for cetaceans have been collected from harbor and elephant seals, and California and Steller sea lions (Kastak et al. 1999, 2005). As with cetaceans, field data suggest the Navy parameter values will underestimate takes of some

pinniped species, though they may provide a reasonable approximation for harbor seals and California sea lions (e.g., the data described above). Pinniped hearing in species studied to date is less sensitive than in cetaceans (e.g., California sea lions, Schusterman et al. 1972; Steller sea lions, Kastelein et al. 2005; harbor seals, Møhl 1968; northern fur seals, Moore et al. 1987; odontocetes, Au 1993), and it is commonly assumed they are less vulnerable to noise as a result. However, comparisons of Steller sea lions with Dall's porpoises and gray whales exposed to airgun noise indicates this is not always the case. A detailed consideration of pinnipeds is beyond the scope of this paper.

Using the datasets discussed above, 50% risk levels based on trained cetaceans may be 165 dB re 1  $\mu$ Pa, 120 dB re 1  $\mu$ Pa for killer and right whales, and 95 dB re 1  $\mu$ Pa for harbor porpoises. The average of 95, 120, 120 and 165 is 125 dB, 40 dB lower than the 50% risk value of 165 dB used in the Navy model. Even if one uses more stringent criteria for what constitutes takes (120 dB for harbor porpoises, 135 dB for killer and right whales, and 170 dB for bottlenose dolphins), the average would be 140 dB, which is 25 dB lower than the Navy model. Setting B to 100, K to 40, and A to 10 would result in roughly 40 times the number of takes than the model predicts using the Navy's parameter values.

#### Parameter values

The use of default values for model parameters is problematic. The available data are likely to be biased toward noise tolerant species. That is, species that are intolerant of noise are difficult to approach closely enough to study. They tend to fare poorly in captivity. E.g., spinner dolphins and harbor porpoises showed very poor survivorship in captivity, in contrast to bottlenose dolphins (Bain 1988). Thus averages based on available data are likely to underestimate effects on species for which data are not available.

While the Navy has proposed assuming noise tolerance is predictable along taxonomic lines, which correlate with hearing ability, empirical data do not support this assumption (Bain and Williams 2006). Likewise, there is interspecific variation in noise tolerance in fish (Kastelein 2008).

#### *B Value*

The basement value should be set low enough that the risk function predicts takes at the lowest of the level resulting in unconditional injuries, the level at which behaviorally mediated injuries are possible, and the level resulting in minor behavioral changes or stress that can have population level effects with sustained or repeated exposure.

An important property of the model is that the biologically observed basement value is different than the mathematical basement value. The Navy proposes using 120 dB re 1  $\mu$ Pa as the basement value. They indicate the selection of this value is because it was commonly found in noise exposure studies. However, 120 dB re 1  $\mu$ Pa has broadly been

found as the value at which 50% of individuals responded to noise, not a small percentage. Further, a mathematical B of 120 dB corresponds to a risk of less than 2% at 150 dB (with  $K=45$  and  $A=10$ ), which would be difficult to detect in empirical studies. That is, the studies should be re-evaluated to determine the level at which a small percentage of individuals responded, and then a further correction for the difference between mathematical B and the empirically determined biological B would be needed.

However, further consideration should be given to the nature of the responses used in those studies to determine whether they represent significant behavioral changes or are only likely to have a population scale effect with sustained or repeated exposure.

For example, many looked at changes in migration routes resulting from noise exposure, and found that 50% of migrating whales changed course to remain outside the 120 dB re 1  $\mu$ Pa contour (Malme et al. 1983, 1984). These results might be interpreted in several ways. They could be seen as minor changes in behavior resulting in a slight increase in energy expenditure. Under this interpretation, they would not qualify as changes in a significant behavior, and are irrelevant to setting the basement value. They could be interpreted as interfering with migration, even though the whales did not stop and turn around, and hence 120 dB would make an appropriate B+K value rather than B value. Third, the change in course could have been accompanied by a stress response, in which case the received level at which the course change was initiated rather than the highest level received (120 dB re 1  $\mu$ Pa) could be taken as the biological basement value.

As discussed above, sensitive species like harbor porpoises may be significantly affected by levels below 100 dB re 1  $\mu$ Pa (Kastelein et al. 1997, 2000, 2001). Foraging behavior of killer whales can be disrupted by levels on the order of 105-110 dB re 1  $\mu$ Pa or less (Williams et al. 2002ab, data in Bain et al. 2006). These are far below the 120 dB re 1  $\mu$ Pa level proposed, and as mentioned above, the mathematical B value needed to predict detectable changes at 110 dB would be far lower than 110 dB. For example,  $B=80$ ,  $K=45$ , and  $A=10$  predicts a risk of less than 2% at 110 dB.

#### *K Value*

The K value reflects the difference between the mathematical B value and the level at which 50% of individuals respond. Since determining the B value has problems of its own, this critique will focus on determining the B+K value. The 50% risk level is relatively easy to determine, and has been commonly reported in the literature, as noted in the SDEIS. However, the most common value was 120 dB re 1  $\mu$ Pa, as noted in the SDEIS, yet these studies were not used to calculate B+K. Instead, other datasets were used, and the numbers derived were not the 50% risk levels. As mentioned above, there are problems with extrapolation of responses in trained animals to wild animals, and the right and killer whale values were based on levels that resulted in nearly 100% risk, not 50% risk. (It may not be possible to determine a level at which 50% risk occurred in killer whales, but perhaps collaboration among killer whale researchers, whale watch operators, and the Navy might identify the B+K level for that event).

The 50% risk level is the median level at which individuals begin to respond, not the mean as calculated in the SDEIS. While there are data suggesting risk of threshold shift is related to duration of exposure, and hence the consequences of exposure to continuous noise sources would be different than exposure to intermittent sources, there are no such data for behaviorally mediated effects. Many species strongly avoid motorized vessels, and hence are more vulnerable to noise than the average of the species considered above. Such species are likely to include those in the sperm and beaked whale families, Pacific right whales, blue whales, melon-headed and pygmy killer whales, right whale dolphins, and Clymene, striped and rough-toothed dolphins. A smaller number of species, like Dall's porpoises, are more tolerant of noise sources than the average of the species considered above. Thus it is unlikely that the average value of B+K across cetacean species would be above 120 dB re 1  $\mu$ Pa, although the value would vary across species.

#### *A value*

While the A value is described as relating to the sharpness of the risk function, it also influences the symmetry of the function. As A increases, risk is redistributed from low noise levels to higher noise levels. The relative risk to the population, as opposed to risk to individuals, can be described as the risk to individuals at a given received level times the relative number of individuals receiving that level. As the sound spreads to larger areas, more individuals are exposed to lower levels of noise. The shape of the risk function and the spreading loss model determine the received level that poses the most risk to the population. At high received levels, the risk to the population may be small, because although the risk to individuals is high, the number of individuals likely to be exposed is small. At low levels, the risk to the population may be again small, because although the number of individuals exposed is high, the risk to those individuals is low. At intermediate values, the population experiences the most risk. When A is low, the risk to the population peaks near B, and at high A values, the risk is concentrated near B+K.

The choice of A value appears arbitrary. The Navy indicated they wanted to allow for more response at low levels, and adjusted the A value to accomplish this. However, this would have been better accomplished by lowering the B and B+K values as suggested above.

The significance of an A value underestimating the number of individuals responding to low levels of noise and overestimating the number of individuals responding to high levels of noise is that the area exposed to low levels of noise is larger than the area exposed to high levels of noise, so the calculation would lead to an underestimate of takes.

Calambokidis et al. (1998) employed an appropriate methodology for obtaining data for calculating A values of marine mammals exposed to airguns. They used a small vessel which moved toward and away from the seismic survey vessel, and hence were able to observe behavior and measure received values at distances of over 70 km as well as close

to the seismic survey vessel. Thus they were able to observe normal behavior in the presence of low levels of noise, as well as identify levels above which 100% of individuals exhibited behavioral change, and note inter-specific variation in response curves.

#### *Interaction of Terms*

It appears that B+K is a stronger predictor of the number of takes than either factor separately. As a result, similar risk curves can be generated for many different pairs of B and K as long as the sum is held constant. K and A together determine the range over which risk rises from 5% to 95%. Similarly, pairs of K and A over a range of values can generate similar risk curves.

With B=120, K=45, and A=10, the risk function predicts risk is near zero at received levels near 120, and that over 99.9% of takes will occur above 138 dB re 1  $\mu$ Pa. Even with A = 8, 99.9% of takes occur at levels above 135 dB. With A values this large, B is better described as the level at which the risk function is undefined (it requires dividing by 0) rather than the level at which risk becomes negligible. That is, the mathematical basement value and the biological basement value are different. The level at which data from marine mammals show barely detectable risk will be far above the mathematical basement value when K is 45 and A is 8 or 10. When K or A are small, the mathematical and biological B values become similar.

Another way of looking at the difference between the mathematical and biological basement value is to ask how much risk is detectable. In field studies, it will be difficult to distinguish responses that occur in only 5% of individuals from baseline behavior. Even if a study were sensitive enough to detect this, the received level to cause 5% risk is more than 30 dB above the mathematical B value for B=120, K=45 and A=8 or 10. That is, if risk becomes biologically detectable at 120 dB, the B value used in the equation for risk should be far lower. When the model uses the biological B value as the mathematical B value, it does not accurately predict the observed pattern of takes.

#### **Long range effects**

The Navy expressed uncertainty over whether there would be long distance effects, even when sound levels were received that are known to cause effects at close range. While I am not aware of observations at 65 nautical miles, responses at over 20 miles have been observed in killer whales to mid-frequency sonar, as well as at over 15 miles to mid-frequency sonar in Dall's porpoises, and harbor porpoises appeared to respond to airguns at over 40 nm (personal observation). The porpoises were responding at distances greater than they would respond to natural predators (killer whales), which are not believed to be detectable at those ranges.

Further evidence of long range responses to noise can be seen in differences in detection rates of some species using acoustic means and ship-based observations. Such studies indicate that species like Pacific right whales and blue whales avoid motorized vessels at distances which place them over the horizon (Wade et al. 2006, Širović 2006).

### Uncertainty and Bias

To assess the effects of uncertainty in the parameter values (B, K, and A) on bias in the estimated number of takes, the following method was used. Two spreading loss models were used. A spherical spreading loss model was used, although this was likely to underestimate received levels, particularly at long distances. The other was spherical spreading at close range followed by a cylindrical spreading loss at longer distances model. An accurate model would depend on actual conditions, which would vary from one sonar exercise to another, both as bottom topography varies from place to place and the structure of the water column varies from time to time. The two models chosen should bracket actual conditions, and will serve for purposes of illustration at this stage. In both models, absorption at 3.5 kHz was used to correct for excess attenuation (Richardson et al. 1995). A source level of 235 dB re 1 μPa was assumed for purposes of illustration.

Individuals were assumed to be distributed uniformly with distance from the source, although in practice, action areas will be large enough that density could reasonably be expected to vary. The action area was divided into concentric rings 10 meters across. As the diameter of the ring increased, the area within the ring increased:

$$A = \pi r_o^2 - \pi r_i^2$$

where  $r_o$  is the outer diameter and  $r_i$  is the inner diameter of the ring.

The risk was calculated for individuals within the ring using the Navy equation, and the relative number of individuals experiencing that risk level was based on the area of the ring. As in the equation for the individuals, the cumulative impact on the population was normalized to 1 based on the Navy default parameters. The effects of uncertainty were observed by allowing the parameters to vary above and below the default values.

Using this model, the contributions of the innermost rings were small, due to their small area, and the contribution of the outermost rings were small, due to the low risk experienced by individuals in those ring. Figures 1-20 show the shape of the risk function and the relative numbers of takes that would occur as a function of received level for a variety of parameter value combinations.

Selected values of B, K and A were used to calculate relative effects, and the results are shown in Table 2 for a spherical spreading model, and Table 3 for a model that assumes spherical spreading for the first 2 km and then cylindrical spreading after that. The default values are shown in bold. Take numbers are based on Alternative 3 in the Hawaii

Range Complex SDEIS (Dept. Navy 2008b), which in turn is based on the No Action Alternative, Table 3.3.1-1. Where the number of takes approaches the size of the population, the actual number of takes will be smaller than shown in the table. However, individuals will be taken multiple times and the duration of takes will be longer than if the calculated number of takes were small. Presumably, longer and more frequent takes of individuals will have more impact on the population than takes due to single exposures.

Table 2. Sensitivity Analysis based on a spherical spreading model

B	K	A	Spreading Model	Relative Effect	Humpback takes	Striped Dolphin takes	Basis
80	45	10	Inv. Square	185.29	2,826,414	867,898	Vary B
90	45	10	Inv. square	75.25	1,147,864	352,471	Vary B
100	45	10	Inv. square	23.92	364,876	112,041	Vary B
110	45	10	Inv. square	5.68	86,643	26,605	Vary B
<b>120</b>	<b>45</b>	<b>10</b>	<b>Inv. square</b>	<b>1.00</b>	<b>15,254</b>	<b>4,684</b>	<b>SDEIS</b>
130	45	10	Inv. square	0.14	2,136	656	Vary B
140	45	10	Inv. square	0.02	305	94	Vary B
120	5	10	Inv. Square	167.18	2,550,164	783,071	Vary K
120	15	10	Inv. square	62.22	949,104	291,439	Vary K
120	25	10	Inv. square	18.33	279,606	85,858	Vary K
120	35	10	Inv. square	4.47	68,185	20,937	Vary K
<b>120</b>	<b>45</b>	<b>10</b>	<b>Inv. square</b>	<b>1.00</b>	<b>15,254</b>	<b>4,684</b>	<b>SDEIS</b>
120	55	10	Inv. square	0.23	3508	1077	Vary K
120	65	10	Inv. square	0.06	915	281	Vary K
120	75	10	Inv. square	0.01	153	47	Vary K
120	45	1	Inv. square	42.40	646,770	198,602	Vary A
120	45	5	Inv. square	3.27	49,881	15,317	Vary A
120	45	8	Inv. square	1.40	21,356	6,558	Vary A
<b>120</b>	<b>45</b>	<b>10</b>	<b>Inv. square</b>	<b>1.00</b>	<b>15,254</b>	<b>4,684</b>	<b>SDEIS</b>
120	45	12	Inv. Square	0.80	12,203	3,747	Vary A
120	45	20	Inv. Square	0.52	7,932	2,436	Vary A
120	45	100	Inv. Square	0.39	5,949	1,827	Vary A
<b>120</b>	<b>45</b>	<b>10</b>	<b>Inv. square</b>	<b>1.00</b>	<b>15,254</b>	<b>4,684</b>	<b>SDEIS</b>
105	15	10	Inv. square	251.39	3,834,703	1,177,511	<i>Orcinus</i>
105	15	8	Inv. square	250.96	3,828,144	1,175,497	
70	25	10	Inv. square	1070.25	16,325,594	5,013,051	<i>Phocoena</i>
70	25	8	Inv. square	1067.49	16,283,492	5,000,123	<i>Phocoena</i>

Table 3. Sensitivity analysis based on a model with spherical spreading for 2 km followed by cylindrical spreading.

B	K	A	Spreading Model	Relative Effect	Humpback takes	Striped Dolphin takes	Basis
80	45	10	Hybrid	132.20	2,016,579	619,225	Vary B
90	45	10	Hybrid	65.31	996,239	305,912	Vary B
100	45	10	Hybrid	25.30	385,926	118,505	Vary B
110	45	10	Hybrid	6.67	101,744	31,242	Vary B
<b>120</b>	<b>45</b>	<b>10</b>	<b>Hybrid</b>	<b>1.00</b>	<b>15,254</b>	<b>4,684</b>	<b>SDEIS</b>
130	45	10	Hybrid	0.08	1,220	325	Vary B
140	45	10	Hybrid	.005	76	23	Vary B
120	5	10	Hybrid	127.23	1,940,771	595,947	Vary K
120	15	10	Hybrid	59.67	910,213	279,496	Vary K
120	25	10	Hybrid	21.39	326,238	100,177	Vary K
120	35	10	Hybrid	5.37	81,901	25,149	Vary K
<b>120</b>	<b>45</b>	<b>10</b>	<b>Hybrid</b>	<b>1.00</b>	<b>15,254</b>	<b>4,684</b>	<b>SDEIS</b>
120	55	10	Hybrid	0.18	2,724	836	Vary K
120	65	10	Hybrid	0.04	570	175	Vary K
120	75	10	Hybrid	0.01	143	44	Vary K
120	45	1	Hybrid	34.16	521,077	160,005	Vary A
120	45	5	Hybrid	3.65	55,665	17,093	Vary A
120	45	8	Hybrid	1.51	23,016	7,067	Vary A
<b>120</b>	<b>45</b>	<b>10</b>	<b>Hybrid</b>	<b>1.00</b>	<b>15,254</b>	<b>4,684</b>	<b>SDEIS</b>
120	45	12	Hybrid	0.73	11,103	3,409	Vary A
120	45	20	Hybrid	0.35	5,353	1,644	Vary A
120	45	100	Hybrid	0.17	2,593	796	Vary A
<b>120</b>	<b>45</b>	<b>10</b>	<b>Hybrid</b>	<b>1.00</b>	<b>15,254</b>	<b>4,684</b>	<b>SDEIS</b>
105	15	10	Hybrid	171.9	2,622,166	805,181	<i>Orcinus</i>
105	15	8	Hybrid	171.3	2,612,718	802,279	
70	25	10	Hybrid	516.41	7,877,318	2,418,864	<i>Phocoena</i>
70	25	8	Hybrid	514.46	7,847,573	2,409,731	<i>Phocoena</i>
80	45	10	Hybrid	132.20	2,016,579	619,225	"Average" species
100	40	10	Hybrid	40.88	623,525	191,464	Stringent criteria
120	45	10	Social75	1.004	15,315	4,703	75% step
120	45	10	Social50	1.06	16,169	4,965	50% step
120	45	10	Social25	1.49	22,728	6,979	25% step
120	45	10	Social10	3.02	46,067	14,146	10% step

An interesting characteristic of the Navy model is that uncertainty causes it to be biased to underestimate risk. The reason for this bias is that the area receiving higher than the level of sound associated with a 50% risk based on default values is smaller than the area receiving lower levels. Thus if a species is 10 dB more sensitive than predicted (the B value), the cumulative risk is underestimated by a factor of 5.68, while if it is overestimated by 10 dB the correction is 0.14. Similarly, if the error is 20 dB, the correction factors are 23.92 and 0.02, respectively. However, the values average to 6.15, not 1 as would be the case if the default values provided an unbiased estimate. Errors in K show a similar pattern.

Likewise, if the default value of A is too low, it makes little difference in the estimated number of takes. However, if the default value of A is higher than the actual value, the effect on the population can be seriously underestimated when default values are used.

It should also be noted that the bias increases with increasing uncertainty.

Another source of uncertainty is propagation. As noted above, there is uncertainty over propagation that depends on the structure of the water column. Expectations can be based on historical measurements, and actual conditions can be measured to allow re-running propagation models with actual conditions. However, when received levels as a function of distance are higher than predicted, the result is asymmetrical relative to an error of the same magnitude in the opposite direction, as is the case for errors in the receiver parameters. E.g., when a sound channel forms, the area receiving enough noise to cause takes will dramatically increase.

Finally, the magnitude of the difference between parameter values based on reanalysis of the datasets used by the Navy (with harbor porpoises added, a species included in the AFAST Draft DEIS, Dept. Navy 2008a), and the Navy analysis should be emphasized. The number of takes predicted for an average species differs by a factor of more than 100. For humpbacks, this suggests individuals would be taken an average of about 250 times. Of course, when refresh times are taken into account, the number of retakes would be below this number, but the duration of takes would go up as a result. The cumulative effect on the population is likely to be far higher with the increased number and duration of takes predicted when more realistic parameters are used than when the Navy parameters are used.

#### SEL vs. SPL

Studies with captive marine mammals suggest that SEL provides a good predictor of Temporary Threshold Shift. That is, there is a tight relationship among signal strength, duration, and TTS. However, for behaviorally mediated effects, this relationship is likely to be different. SPL is likely to qualitatively determine the response for signals longer than 1 ms in duration. As long as signals are produced sufficiently often, the duration from the first signal to the last is likely to be more important than the SEL. That is, for

low received levels, one second signals produced every 40 seconds for 120 minutes are likely to have more impact than a continuous signal that lasts 10 minutes, even though the latter contains far more sound energy (600 seconds versus 180 seconds), as a behavioral response will be sustained for hours rather than minutes.

When attempting to predict effects of takes on the population, a take table with multiple columns should be developed. One based on SEL could be used to characterize direct effects such as threshold shifts. The next two should be based on SPL. The first of these should be analyzed to evaluate the total number of individuals that would change their behavior as a result of noise exposure, with particular attention paid to exposure in high risk areas (canyons, near shore, near shipping lanes) for potential indirect injuries. The third analysis would consider duration of exposure (in hours of exercise rather than in the SEL sense) to determine whether factors such as stress, displacement from preferred habitat, changes in foraging success and predation risk, etc., would result in cumulative effects that would alter population growth in a manner equivalent to lethal removals (Bain 2002a).

### Summary

In summary, development of a function that recognizes individual variation is a step in the right direction. However, the selected equation is likely to produce underestimates of takes. This is due both to social factors increasing the likelihood of a response at low exposure levels, and asymmetries in the number of individuals affected when parameters are underestimated and overestimated due to uncertainty. Thus it will be important to use the risk function in a precautionary manner.

The sensitivity analysis reveals the importance of using as many datasets as possible. First, for historical reasons, there has been an emphasis on high energy noise sources and the species tolerant enough of noise to be observed near them. Exclusion of the rarer datasets demonstrating responses to low levels of noise biases the average parameter values, and hence underestimates effects on sensitive species. In particular, exclusion of the Navy's own interpretation of harbor porpoise data resulted in an increase of B+K by 11 dB, and a reduction in estimated takes by a factor of about 5. Second, uncertainty is correlated with bias. That is, even if a representative set of noise exposure-response data are used to calculate parameter values, the statistical uncertainty resulting from small samples results in biased parameter estimates that lead to underestimation of effects. Thus when estimating takes, it will be important to correct for bias. When estimating population effects on poorly known species, it will be important to be precautionary.

An important error in the selection of parameter values was in interpretation of existing data. Extrapolating behavioral changes in beluga and killer whales and bottlenose dolphins trained to tolerate physical harm that is in their long-term best interest to the threshold for onset of any physical harm in wild individuals is problematic. A similar mistake was made with the right whale data. The level at which 100% of individuals responded was used as the value at which 50% of individuals responded (B+K).

Likewise, the level at which 100% of killer whales responded to mid-frequency sonar is less than the value derived for B+K in the HRC SDEIS (Dept. Navy 2008b).

The "broad overview" of studies reported responses to received levels of 120 dB re 1  $\mu$ Pa by 50% of individuals. That is, 120 dB re 1  $\mu$ Pa should be taken as a "default" value for B+K, not B. Studies which looked at the level at which statistically significant changes were observed, rather than the level at which 50% of individuals responded found lower levels for B. As a result, B is overestimated, and B+K (the level at which risk is 50%) is as well. The use of data from trained dolphins and white whales biased the average B+K value upward. The exclusion of the effects of AHD's and ADD's on harbor porpoises further biases these values, though the sensitivity analysis suggests that using average values to extrapolate takes is unlikely to be accurate due to the broad range of inter-specific variation.

It is likely that biological B values should be in the range from just detectable above ambient noise to 120 dB re 1  $\mu$ Pa. The resulting mathematical B value could be tens of dB lower, not the 120 dB re 1  $\mu$ Pa proposed. For many species, risk may approach 100% in the range from 120-135 dB re 1  $\mu$ Pa, putting K in the 15-45 dB range. A values do not seem well supported by data, and in any case, are likely to be misleading in social species as the risk function is likely to be asymmetrical with a disproportionate number of individuals responding at low noise levels. Re-evaluating the datasets identified by the Navy and including harbor porpoises, an average B+K value of 125 dB was found, and the over-representation of species that fare well in captivity likely biases the average above what it would be for all species. Rather than one equation fitting all species well, parameters are likely to be species typical. As realistic parameter values are lower than those employed in the HRC SDEIS (Dept. Navy 2008b), AFAST DEIS (Dept. Navy 2008a) and related DEIS's, take numbers should be recalculated to reflect the larger numbers of individuals likely to be taken. The difference between the parameter values estimated here and those used in the SDEIS suggests takes were underestimated by two orders of magnitude.

The large number of takes predicted when more sensitive species are used as sources of the parameters indicates that many individuals are likely to be taken many times, and the potential for population scale effects to result from small behavioral changes becomes significant.

Assuming spherical spreading out to 2 km followed by cylindrical spreading, B=120, K=45 and A=10 (the Navy values), most takes occur where the received level is greater than 157 dB re 1  $\mu$ Pa and the distance is less than 13 km. With stringent criteria for what constitutes a take derived in the reanalysis (B=120, K=20, A=10), most takes would occur where the received level is below 145 dB re 1  $\mu$ Pa and the distance is over 43 km. With the average values calculated here (B=80, K=45, and assuming A=10), most takes would occur where the received level is below 135 dB re 1  $\mu$ Pa and the distance is over 80 km. These values predict over 100 times more takes as the Navy values, as well as the need for very different approaches to mitigation.

The Navy recognizes that the occurrence of conditional effects is important to assessing the impact of noise exposure. As such effects are the result of both received levels and environmental conditions, permit conditions will be important in determining these. The potential for conditional harm suggests using mitigation to limit the potential for actual harm. E.g., the risk of causing stranding can be minimized by restricting exercises to areas far from shore. Limiting the duration of exposure can limit the consequences of long-term displacement, risk of injury from prolonged flight, and limit cumulative effects. The risk of causing gas bubble lesions can be minimized by restricting use near canyons, for extended periods of time, and limiting the number of sources. The absolute effects can be minimized by conducting exercises in areas where population density is low, or at times of year when species of concern are absent.

Finally, it will be important to assess the cumulative effects of noise combined with other factors and population status (Wade and Angliss 1997) to assess the likely effects of sonar exercises on marine mammal populations.

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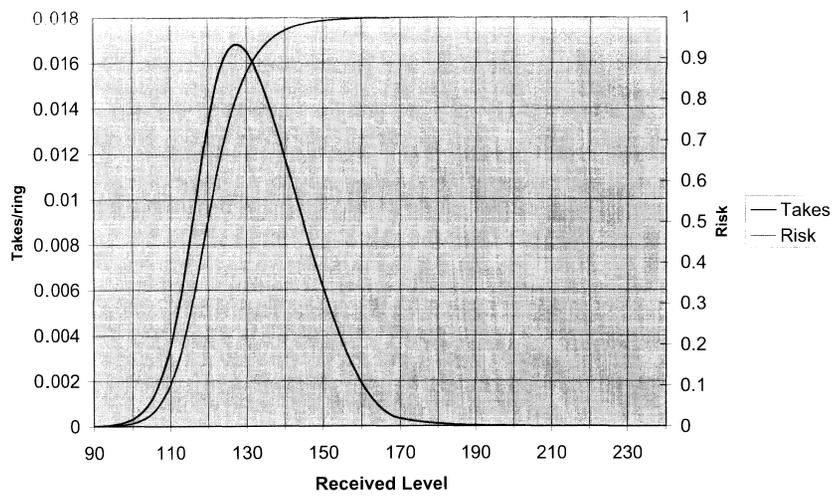
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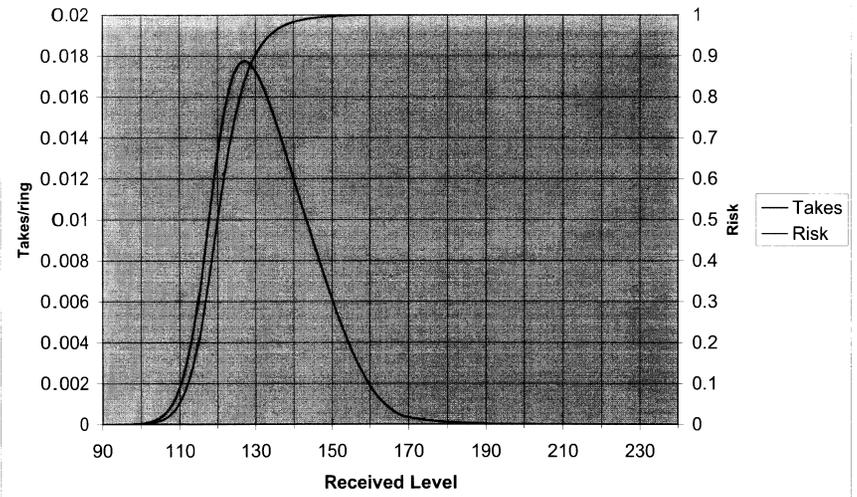
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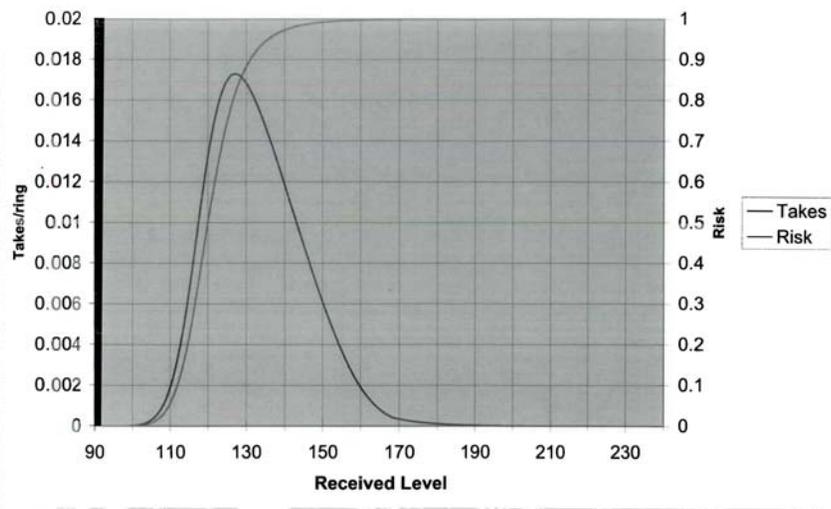
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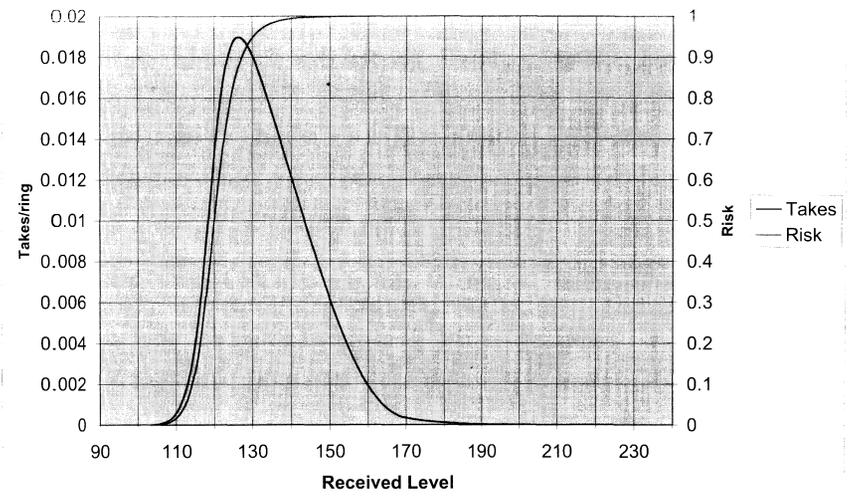
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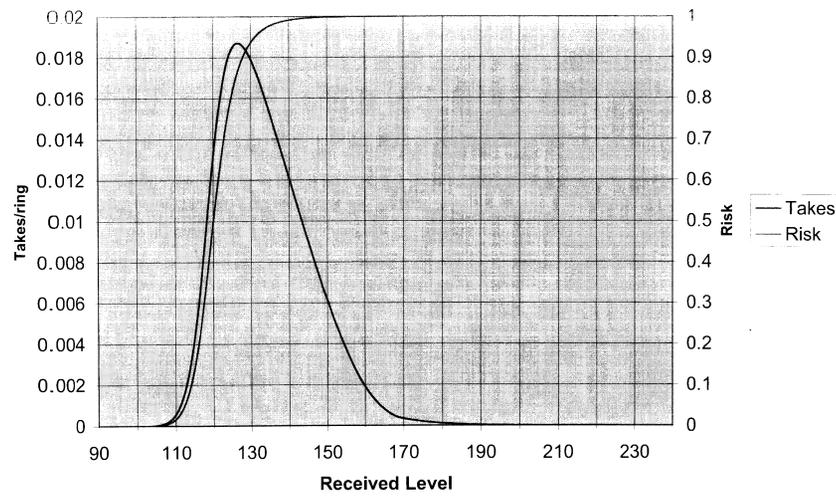
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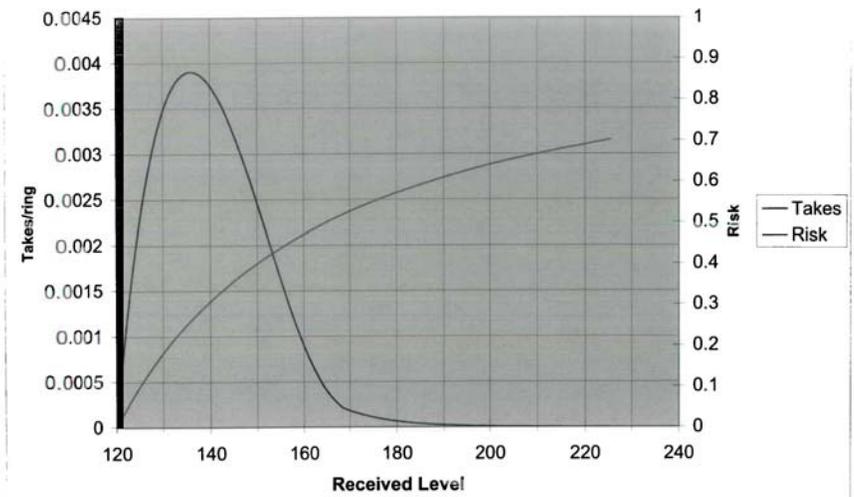
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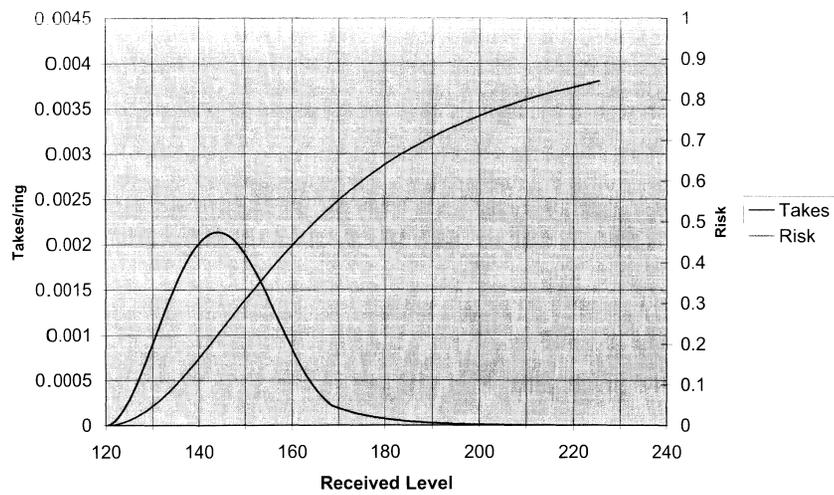
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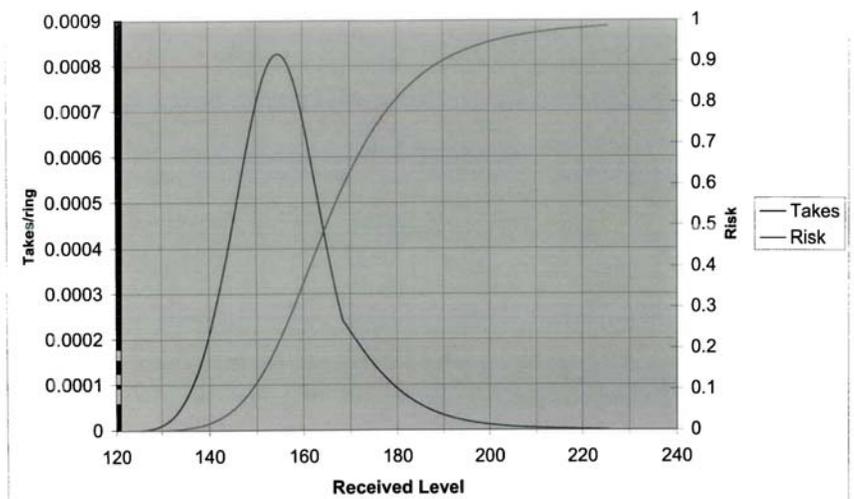
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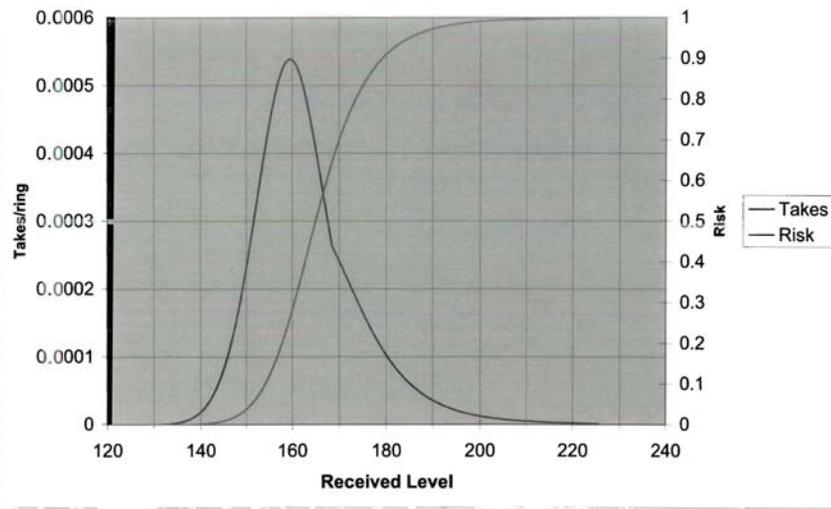
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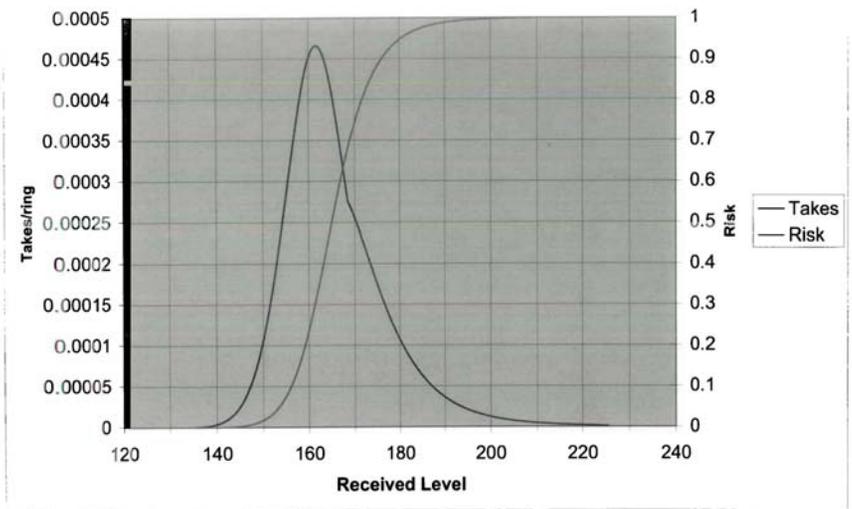
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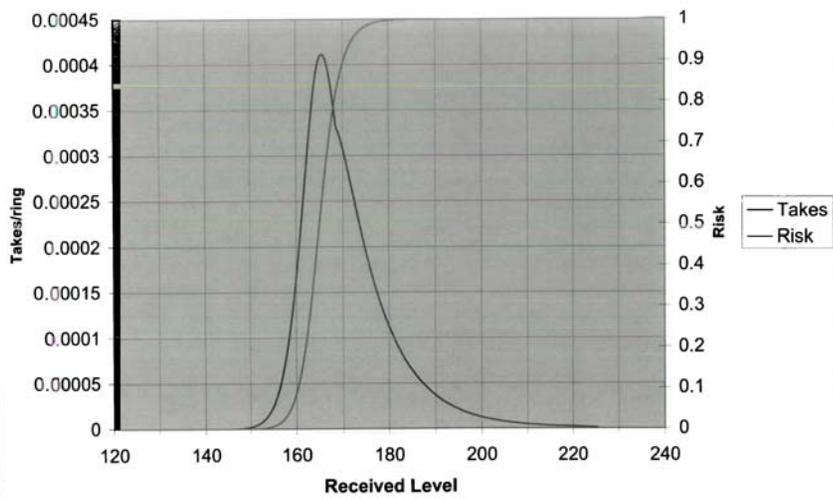
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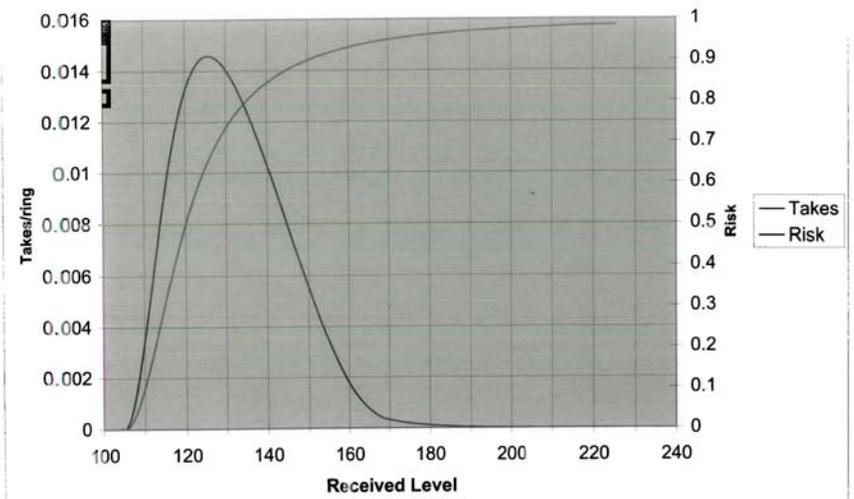
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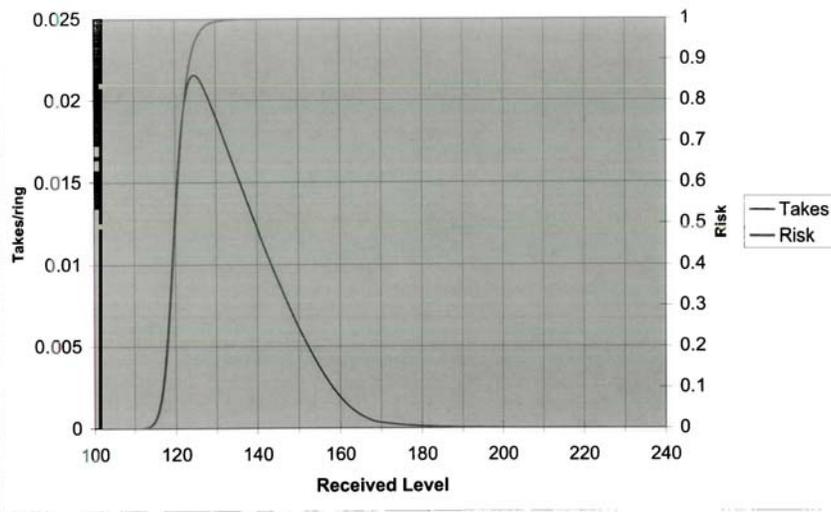
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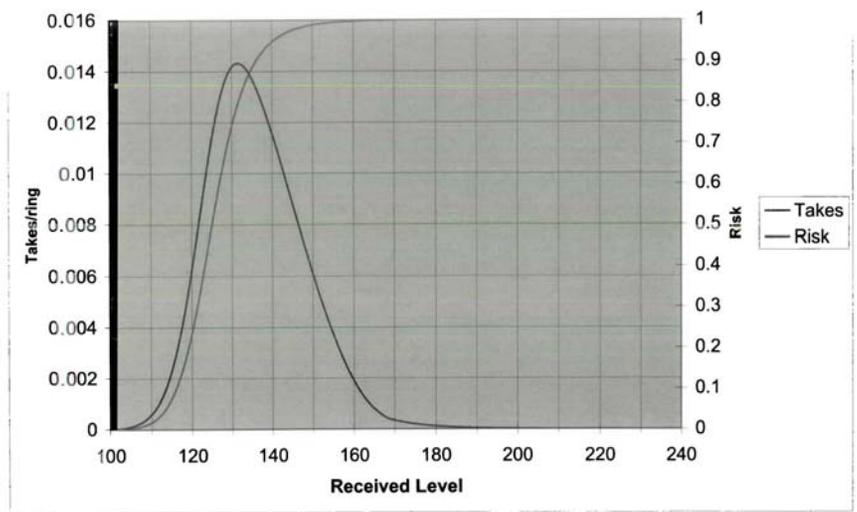
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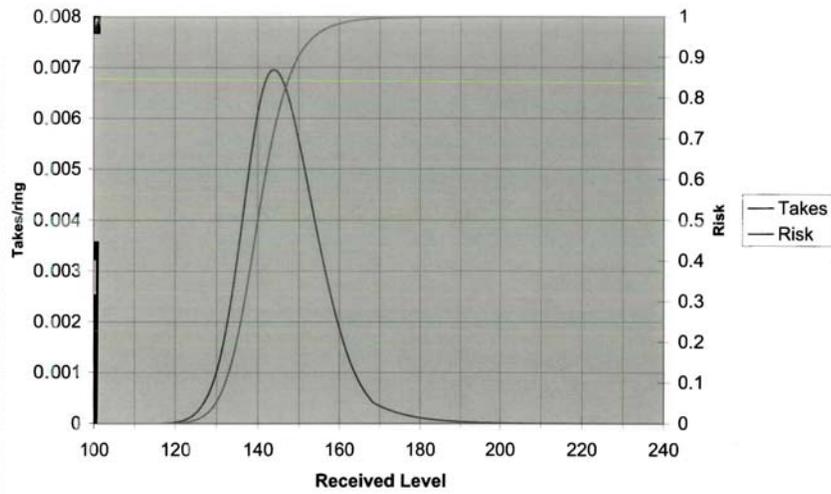
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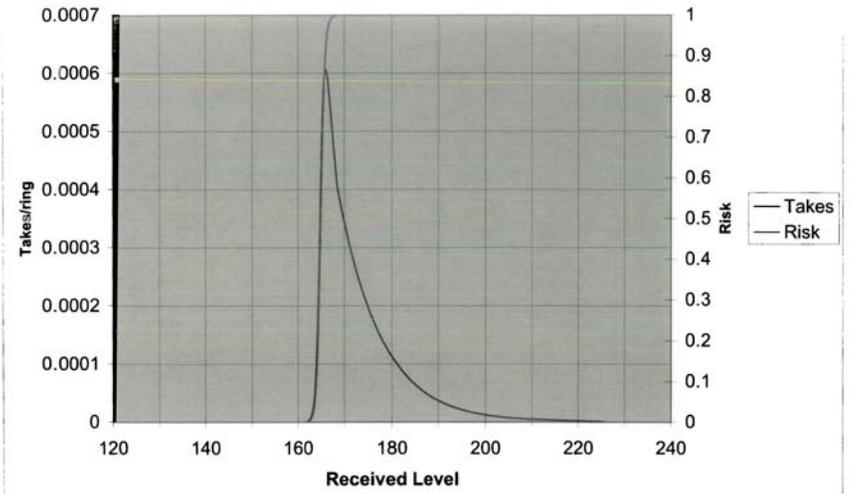
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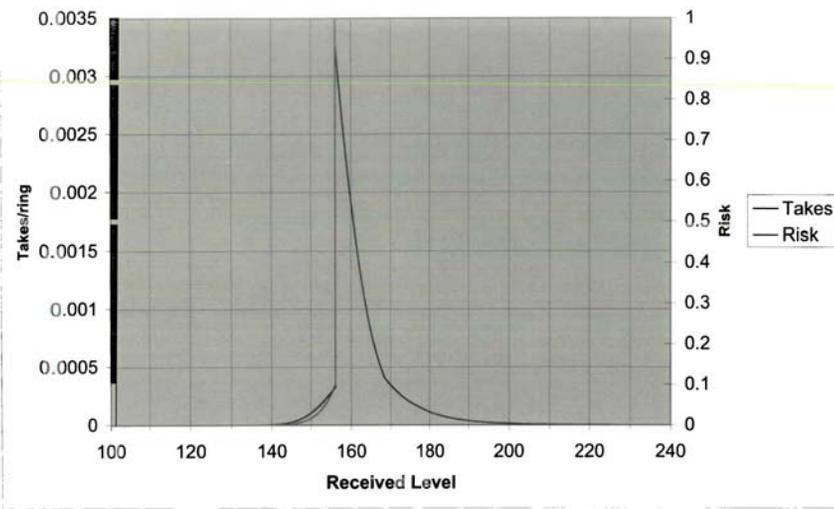
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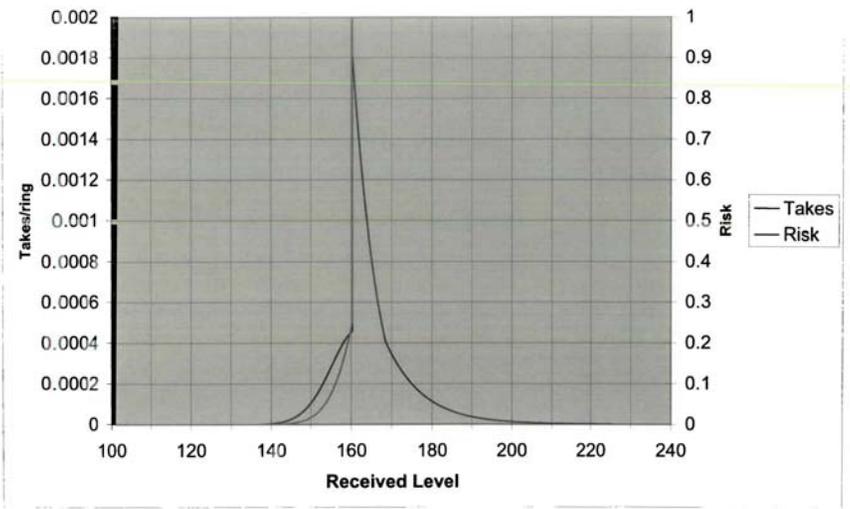
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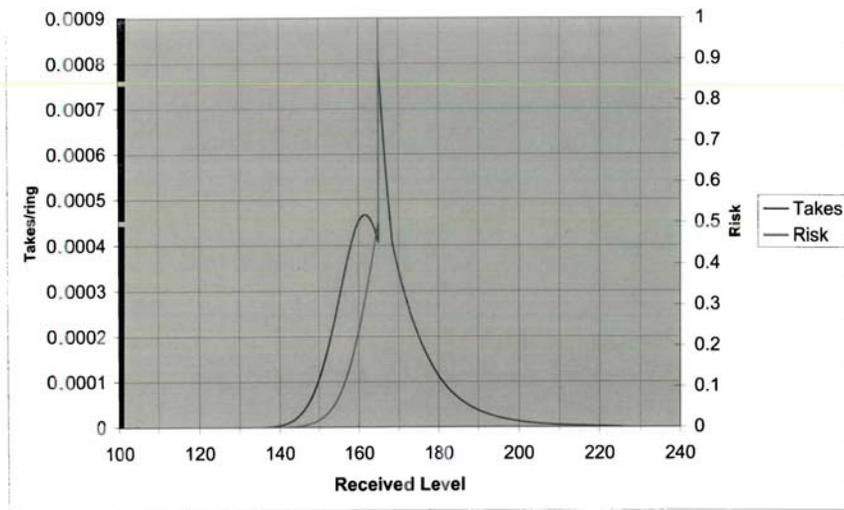
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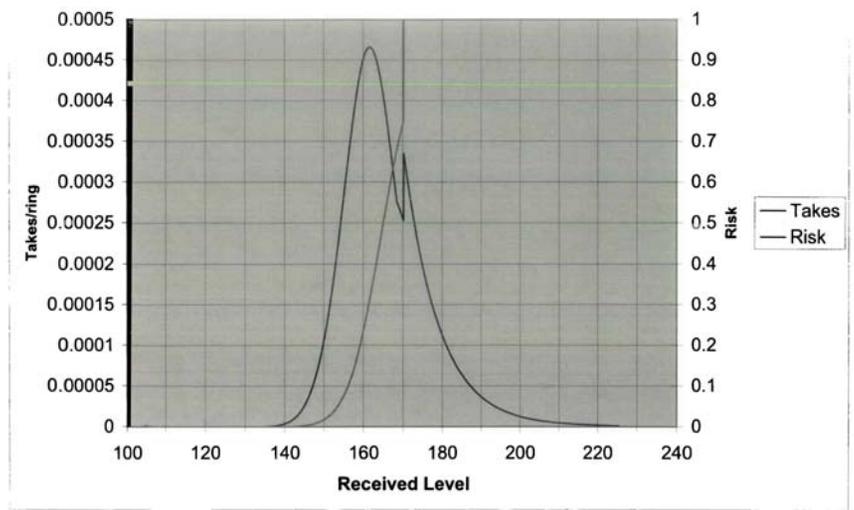
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Ring Contribution (Social75 120, 45, 10)



United States Navy  
**Public Hearing Comment Form**  
 Northwest Training Range Complex  
 Environmental Impact Statement /  
 Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Depositing this form at the Comment Table before you leave tonight.
- 2) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 3) Mailing this form to:

Naval Facilities Engineering Command Northwest  
 1101 Tautog Circle, Suite 203  
 Silverdale, WA 98315-1101  
 ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: Linda Bainbridge

Organization/Affiliation: Audubon Society, Whidbey Chapter

Address: 4459 Towhee Lane

City, State, Zip Code: Greenbank, WA 98253

Comments: Although there are valid national security reasons for naval training and conducting tests, doing them in such a way that harms the environment is inconsistent with the will of the people, as expressed by their election of a President and Commander-in-Chief who ran on a platform of national security AND protection of the environment.

I support the NO ACTION ALTERNATIVE, due to the decline in numerous marine species and the lack of information available to assess the impacts of the Navy's proposed expansion on these species.

In addition, I ask that the comment period BE EXTENDED since the website for submitting comments was non-functional

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

during more than half of the comment period.

Thank you.

United States Navy  
**Public Hearing Comment Form**  
 Northwest Training Range Complex  
 Environmental Impact Statement /  
 Overseas Environmental Impact Statement



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 Silverdale, WA 98315-1101  
 ATTN: Mrs. Kimberly Kler - NWTRC EIS

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All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: Monique G. Salaban

Organization/Affiliation: \_\_\_\_\_

Address: 1489 N. Livernois Rd.

City, State, Zip Code: Rochester Hills, MI 48306

Comments: \_\_\_\_\_

What you are attempting to do is wrong. It is appalling to find out that today's generation could possibly consider "taking" of marine mammals for warfare testing program. In this 21st century that we live in, this option should not even be brought up for discussion. This will impact the entire ecology + will contaminate our water, soil + air. I urge you to stop this once and for all. This is unacceptable and unrealistic. Listen to the outcry of the people + do not

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

Proceed with any kind of high-frequency active sonar sources, explosive detonations or any other kind of testing you have in mind.

**United States Navy  
Public Hearing Comment Form**  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



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All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: Shanti Balse  
Organization/Affiliation: \_\_\_\_\_  
Address\*: Box 1658  
City, State, Zip Code: Mendocino CA 95460

Comments: I completely oppose to this N.W Training Range Complex and all future destructive endeavors performed by the Navy or any branch of military. Enclosed are ~~two~~ petitions signed by the people of Mendocino who agree whole heartedly we will continue to get signatures and send them your way. Enough already w/ unnecessary testing @ the expense of sentient life, pristine environments and integrity! This is hallowed sacred land & sea and we <sup>the people</sup> say NO WAY! to your tests!

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

\*Provide your mailing address to receive future notices about the Northwest Training Range Complex EIS/OEIS.

PACIFIC COAST OCEAN SANCTUARY PETITION	
<b>Sign Name:</b> <u>Ruth R</u> <b>Print Name:</b> <u>Ruth Rosenblum</u> <b>e-mail address:</b> <u>ruff@mcn.org</u>	<b>Area Code Telephone:</b> <u>707 937 2436</u> <b>Mailing Address:</b> <u>PO Box 231 CA</u> <b>City:</b> <u>Mendocino</u> <b>State:</b> <u>CA</u> <b>Zip:</b> <u>95460</u>
<b>Sign Name:</b> <u>Sigoua Fry</u> <b>Print Name:</b> <u>Sigoua Fry</u> <b>e-mail address:</b> <u>seguia3280@hotmail.com</u>	<b>Area Code Telephone:</b> <u>707 937 2436</u> <b>Mailing Address:</b> <u>PO Box 231</u> <b>City:</b> <u>Mendocino</u> <b>State:</b> <u>CA</u> <b>Zip:</b> <u>95460</u>
<b>Sign Name:</b> <u>Jacqueline Forsythe</u> <b>Print Name:</b> <u>Jacqueline Forsythe</u> <b>e-mail address:</b> <u>jacquelineforsythe@yahoo.com</u>	<b>Area Code Telephone:</b> <u>303 819 7192</u> <b>Mailing Address:</b> <u>5775 Jay Rd</u> <b>City:</b> <u>Blair</u> <b>State:</b> <u>CO</u> <b>Zip:</b> <u>80301</u>
<b>Sign Name:</b> <u>Carole Martin</u> <b>Print Name:</b> <u>Carole Martin</u> <b>e-mail address:</b> <u>carole@mcn.org</u>	<b>Area Code Telephone:</b> <u>(707) 937 5212</u> <b>Mailing Address:</b> <u>44455 Fernwood Ca</u> <b>City:</b> <u>Mendocino</u> <b>State:</b> <u>CA</u> <b>Zip:</b> <u>95460</u>

PLEASE PRINT ONE SIDE ONLY and return with a donation to Ocean Sanctuary Alliance, P.O. Box 533, Talmage, CA 95481 by the last day of each month whether completely full or not. For information, email [greens@mendocinocountry.com](mailto:greens@mendocinocountry.com) and see [www.mendocinocountry.com](http://www.mendocinocountry.com)



**TO INCIDENT:** objective rulemaking, and the environmental impacts of wave buoy array, deployment are unknown, and would require significant industrial development onshore which is being ignored in its permitting process.

**WHEREAS:** The cumulative impact of these projects are not considered by any of these agencies and would militarize and industrialize our coast to a vast extent in undesirable ways with which we profoundly disagree.

**WHEREAS:** We the people, our needs our feelings, our unique culture, economy and ecology are being ignored by the federal government in pursuing these projects;

**WE, THE HEREIN SIGNED WEST COAST VOTERS URGENTLY INSIST YOU POSTPONE ALL THESE PROJECTS indefinitely for further study as Bush 41 postponed OCS lease sales of California in 1989.**

**FURTHER** we ask you to work with Congress to promulgate OCEAN SANCTUARY legislation to permanently protect coastal areas off California, Oregon and Washington in order to preserve for posterity significant natural characteristics such as deep ocean upwellings which provide a large portion of the nutrients on which our fisheries and planet depend.

**WHEREAS:** PERC has rushed into the business of granting hydrokinetic permits on a case by case basis with no regard for due process and



# PACIFIC COAST

# OCEAN SANCTUARY PETITION

**TO PRESIDENT BARACK OBAMA:**  
**WHEREAS THE WEST COAST OF THE UNITED STATES OF AMERICA** finds itself the target of a US Navy training range expansion, offshore oil and gas lease sales by the Interior Department's Minerals Management Service, and Federal Energy Regulatory Commission hydrokinetic energy pilot projects;

**WHEREAS** the Northwest Training Range expansion would transform our peaceful coast into a warring asset, bringing the conflict in South Central Asia into our front yard and cause significant and permanent disruption of fisheries and marine life, decimate our tourism economy and ruin our quiet enjoyment of the ocean;

**WHEREAS** oil and gas drilling on our outer continental shelf would create decades of acute environmental risk and permanent deterioration of the quality and integrity of the marine environment for only a few weeks of national petroleum consumption;

**WHEREAS** FERC has rushed into the business of granting hydrokinetic permits on a case by case basis with no regard for due process and

objective rulemaking, and the environmental impacts of wave buoy array deployment are unknown, and would require significant industrial development onshore which is being ignored in its permitting process;

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Area Code Telephone

707 937-3212

Mailing Address State

44453 Fernwood CA

City Zip

Seabrook, CA 95460

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ALISON GAUS

Print Name

e-mail address

alisongaus@hotmail.com

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Smart Best

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City Zip

Mendocino 95460

Sign Name

ELLEN ATHENS

Print Name

e-mail address

ellenathens@mcn.org

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**PACIFIC COAST OCEAN SANCTUARY PETITION**

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**Sign Name** *[Signature]*  
**Print Name** MATTHEW J. ROWLAND  
**e-mail address** Rowland@mev.org  
**Area Code** 707  
**Telephone** 937-2236  
**Mailing Address** Box 146  
**City** Mendocino  
**State** CA  
**Zip** 95460

**Sign Name** *[Signature]*  
**Print Name** LOUISE BIEDEKER  
**e-mail address** Louise@mev.org  
**Area Code** 707  
**Telephone** 937 3448  
**Mailing Address** PO Box 1518  
**City** Mendocino  
**State** CA  
**Zip** 95460

**Sign Name** *[Signature]*  
**Print Name** Bess Sanders  
**e-mail address** Bess@mev.org  
**Area Code** 707  
**Telephone** 538 3888  
**Mailing Address** 10520 Kelly Ct  
**City** Mendocino  
**State** CA  
**Zip** 95460

**Sign Name** *[Signature]*  
**Print Name** Ethan Moss  
**e-mail address** Ethan@mev.org  
**Area Code** 707  
**Telephone** 915-5620  
**Mailing Address** 10520 Kelly Ct  
**City** Mendocino  
**State** CA  
**Zip** 95460

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 Count



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**Sign/Name** *Janet Self*  
**Print/Name** Janet Self  
**e-mail address** *janet46@hotmail.com*

**Area Code Telephone** 707-937-2728  
**Mailing Address** 1102 County Ln CA  
**City** Mendocino 95460  
**State**  
**Zip**

**Sign Name** LAUREA MAIONE  
**Print Name** *LAUREA MAIONE*  
**e-mail address** *LAUREA MAIONE*

**Area Code Telephone** 707 964 8981  
**Mailing Address** PO 1754 CA  
**City** Mendocino 95460  
**State**  
**Zip**

**Sign Name** *Doreen Campbell*  
**Print Name** Doreen Campbell  
**e-mail address** *dcampbell@diverrealtyadvises.com*

**Area Code Telephone** 800-767-5707  
**Mailing Address** 2450 Stannel Dr. CA  
**City** Concord 94526  
**State**  
**Zip**

**Sign Name** *Amy Pint*  
**Print Name** Amy Pint  
**e-mail address** *APint@inspnet.net*

**Area Code Telephone** 707-474-4354  
**Mailing Address**  
**City** Benicia 94710  
**State**  
**Zip**

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**Sign Name** MARK SKEFF  
**Print Name** *MARK SKEFF*  
**e-mail address** *EUP@SFF.ORG*

**Area Code Telephone** 408-286-6712  
**Mailing Address** 4244 425 E. St. Santa Clara CA  
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**State**  
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**Sign Name** *Sage Gully*  
**Print Name** SAGE GULLY  
**e-mail address** *SageGully@yahoo.ca*

**Area Code Telephone**  
**Mailing Address** 1020 Third St. CA  
**City** Redwood 94572  
**State**  
**Zip**

**Sign Name** *John Gully*  
**Print Name** John Gully  
**e-mail address** *JohnGully@yahoo*

**Area Code Telephone**  
**Mailing Address** 1020 3rd St  
**City** Redwood CA 95722  
**State**  
**Zip**

**Sign Name** *Nancy Murphy*  
**Print Name** Nancy Murphy  
**e-mail address** *NancyMurphy*

**Area Code Telephone**  
**Mailing Address** PO Box 873 CA  
**City** Alta 95701  
**State**  
**Zip**

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<b>Sign Name</b> Kelly Murphy <b>Print Name</b> Kelly Murphy <b>e-mail address</b>	<b>Area Code Telephone</b> PO. Box 873 City ALB ZIP 95701
<b>Sign Name</b> Scott Ryan <b>Print Name</b> Scott Ryan <b>e-mail address</b> antonvainspain@yahoo.es	<b>Area Code Telephone</b> 1101 BEECHTON WAY City OROVILLE ZIP 95766
<b>Sign Name</b> Peter T. Hill <b>Print Name</b> Peter T Hill <b>e-mail address</b> peter@stfoundeltyahoo.com	<b>Area Code Telephone</b> 707 357-0528 Mailing Address PO BX 671 City ALBION State CA. ZIP 95410
<b>Sign Name</b> Andrew Lummas <b>Print Name</b> Andrew Lummas <b>e-mail address</b> lummasdlm.net	<b>Area Code Telephone</b> 510.528.5032 Mailing Address 1149 High Ct. City Berkeley CA ZIP 94708

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<b>Sign Name</b> MARYSON <b>Print Name</b> MELINDA APPLIGATE <b>e-mail address</b> LAURANN@netmail MENDOCCNO CA 95760	<b>Area Code Telephone</b> (707) 937-1769 Mailing Address PO BOX 1728 City MENDOCCNO CA 95760 State CA ZIP 95710
<b>Sign Name</b> Christopher Hone <b>Print Name</b> Chris Hone <b>e-mail address</b> Now-the-re-bitter-tale@hokuro.com	<b>Area Code Telephone</b> 707-972-4728 Mailing Address PO Box 628 City ALBION CA State CA ZIP 95410
<b>Sign Name</b> Jennifer <b>Print Name</b> Jennifer <b>e-mail address</b> jennifer@juno.com	<b>Area Code Telephone</b> 707 972 4728 Mailing Address PO Box 628 City ALBION State CA ZIP 95410
<b>Sign Name</b> Jennifer <b>Print Name</b> Jennifer <b>e-mail address</b> jennifer@juno.com	<b>Area Code Telephone</b> 707 972 4728 Mailing Address PO Box 628 City ALBION State CA ZIP 95410
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Pls. Put address or it won't count

**United States Navy  
Public Hearing Comment Form  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement**



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

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Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler – NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: Melinda Bargreen

Organization/Affiliation: homeowner, Lopez Island

Address:\* 401 Westmere Drive

City, State, Zip Code: Everett, WA 98201-4657

Comments: First, we would like to thank you for your service to our country, and for allowing affected citizens to comment on your proposed plans. The Navy has always been a good and cooperative neighbor in the San Juan Islands, and we understand that a certain amount of jet noise is unavoidable if you are to continue doing your jobs well.

However: the new proposal to double the number of training flights over the San Juan Islands has caused serious concern for us, our family and our neighbors on Lopez Island.

First of all, we don't understand the necessity for doubling the training flights: has the base suddenly doubled its population of pilots?

Second, we don't understand why more of the training flights can't take place on simulators instead of wasting vast amounts of fuel in expensive airplanes and annoying/endangering all the neighbors and wildlife beneath you.

Third, why can't more of the training flights take place over open water, instead of over land? This would not only reduce the noise, but also the danger to people and wildlife below, in case of crashes or fuel dumps. You are right next to extensive waterways. You don't need to buzz the islands.

Fourth, what about the issue of those fuel dumps that would presumably be doubled if you double flights? Orcas, eagles and other wildlife are already under threat of extinction from mankind's changes in their environment. Adding extra layers of noise and pollution is a step in the wrong direction, not the right direction. Jet fuel is exceedingly toxic, and the San Juans environment is highly sensitive.

Please reconsider these plans to expand the sorties. We feel very strongly about this.

Sincerely, Melinda Bargreen and family 

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Name: Charles Bates

Organization/Affiliation: U.S. Citizen/American Taxpayer

Address:\* PO Box 421

City, State, Zip Code: Anacortes, Washington 98221

Comments: The noise of these aircraft already exceed healthy levels. Life here is intolerable because of the noise which drowns out normal conversation (one has to stop talking when a plane flies overhead because a human voice cannot be heard), music: the planes are so loud that one cannot hear music being played in a set of head phones. The level of this noise is physically harmful to humans. And it is not localized; they spread it over Anacortes, Washington Park, Guemes, Lopez Island and Deception Pass Park, where people seek quiet and tranquility and is a sanctuary for wildlife.

This airport is too close to populated areas and a very unique, scenic, and special natural area. It should be relocated to Attu where the Navy has built an extensive community. It is isolated and unpopulated. They can make as much noise as they want over the Pacific Ocean. These planes fly as late as 2AM and there is CONSTANT noise all night long from maintenance which disrupts normal and healthy sleep patterns. This base is literally robbing the public of sleep and their hearing. It is NOT the sound of freedom—it is the sound of war. It does not protect the peace—there is no peace here: it is a war zone.

This base is nothing more than government welfare that destroys the quality of life while pretending to support the economy. It is a false economy based on free taxpayer money. Planes basically fly in circles, going nowhere, wasting precious fuel when they could substitute simulators for training. The Navy is the epitome of arrogance in disrupting and destroying the natural environment and the health and well being of the citizens in the region. Further arrogance will be forthcoming when these suggestions and criticisms are ignored and the Navy will do what it pleases.

At the very least the base should reduce its operations, limit its noise and its use of airspace to that over Oak Harbor, the city of people who create the noise and claim to benefit from the base's existence.

My message to the Navy at Whidbey NAS: SHUT UP AND GO AWAY!!!

Cc: The Honorable Representative Rick Larsen

The Honorable Senator Patty Murray

The Honorable Senator Maria Cantwell

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Name: Don W. Bear

Organization/Affiliation: CITIZEN

Address: 463 Humboldt St

City, State, Zip Code: Willits, CA 95490

Comments: At a time when our oceans are in trouble (the continent sized island of plastic in the north pacific) our fishing industry all but gone, is it necessary to further endanger the marine life off the coast. When the navy is not allowed to operate sonar in an area where humans are in the water, that suggests a high degree of danger to life here all.

Don W. Bear

Visit www.NWTRangeComplexEIS.com for project information.

\*Provide your mailing address to receive future notices about the Northwest Training Range Complex EIS/OEIS.

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Name: Peggy V. Beck

Organization/Affiliation: \_\_\_\_\_

Address:\* 701 Shimko Rd. \_\_\_\_\_

City, State, Zip Code: Port Angeles, WA 98363 \_\_\_\_\_

Comments: \_\_\_\_\_

I am opposed to the NW training range complex EIS on the basis of good science. The Navy's proposals are toxic and dangerous to the marine environment, toxic and dangerous to marine mammals and birds, and toxic and dangerous to human beings. You ought to be ashamed of yourselves, wasting my taxes on insane proposals such as planting mine fields in the ocean. Absolutely opposed.

For information: Your website did not allow me to submit my comments. I wonder why.

April 7, 2009

Naval Facilities Eng. Command Northwest :

Re: Navy Testing

This letter is to let you know that we are vehemently opposed to the Navy's plan to test weapons in waters off the North Coast.

This is a dangerous plan that will affect our waters and marine mammals. Your analysis contains false, misleading, and outdated assumptions.

We need to save our planet, not further destroy it!

Marcia Belford

P.O. Box 2716

Fort Bragg, Ca. 95437

Public Meeting  
US Navy Draft EIS/OEIS for the  
Northwest Training Range Complex  
Tillamook, Oregon  
26 February 2009

Statement of Frank B. Bohannon:

I have been a vessel Captain and vessel owner continuously since 1962. I have fished for Salmon, Tuna, Shrimp, Crab (Dungeness, Tanner, King), and Groundfish including Pacific Whiting and Alaska Pollack. The waters I have fished are Bering Sea, North and South Pacific, Caribbean, North and South Atlantic, and The Southern Ocean of Chile and Antarctica...as a captain of vessels from 32 feet to 340 feet.

I was one of the first participants in pioneering the American effort of establishing the Pollack and Whiting fisheries in 1979, after the Magnusson-Steven's fishery and management act was passed.

I have a BS in science with some post-graduate work in Oceanography from Oregon State University in 1966.

During my continuous fishing career I have been an Asst. Professor of Fisheries at both OSU and The University of Alaska in their Sea Grant Programs. I have also been very active in Fishing Organizations for over 45 years, either serving on the board or as an officer, VP or Pres...As such I took part in lobbying and regulatory efforts in Washington DC and all of the west coast states including Alaska. I served as an industry advisor to the US State Dept. on Treaty matters in both the North Pacific and Bering Sea, negotiating in the US, Canada, Korea, Japan, and The Soviet Union. I have served on several committees of the fishery management councils.

I have a concern that the US Navy's proposed Northwest Training Range Complex has the potential to seriously interfere with several fisheries on the Oregon and Washington...Specifically the Pacific Whiting Fishery.

The US Fishery:

- Started in 1979 and,
- Takes place from April to December

- Covers an area from Fort Bragg, California to Cape Flattery, Washington from 25 fathoms to 400 fathoms
- Includes;
  - 37 catcher vessels, 85 to 150 feet long delivering to shore plants.
  - 15 shore plants in the communities of Eureka, Crescent City, Coos Bay, Newport, Astoria, Ilwaco, and Westport.
  - 24 catcher vessels 85 to 150 feet long, delivering to at sea processors...Motherships.
  - 5 Motherships, from 250 to 630 feet long.
  - 10 catcher/processors from 250 feet to 350 feet long.

There are a total of 91 vessels, with approximately 1700 personnel aboard. The shore plants have another 1500 personnel. Most of the time the fishery is spread out and each individual fleet is working together. There are other times that the fish are concentrated in one area and most of the fleet is on this spot. When fishing, each individual fishing boat, whatever their size, has 3 times the depth of water they are fishing on, of trawl wire behind the boat toward the bottom. They also have a net that measured with the bridals is another thousand feet. The net and its related gear have a value of up to one million dollars on some vessels. All of this means that things get crowded and that vessels fishing deep water can have over a mile of gear that they are managing very precisely and carefully, in three dimensions. That is also why a Trawler has one of the highest hierarchies in right of way over other vessels. We are somewhat "restricted in our ability to maneuver". It also should be emphasized that when the fleet is together at close quarters (<.1 nm) and have their nets deployed in deep water, that a submarine would be hard pressed to maneuver through the fleet. I had the experience of having a sub go through my net when I was basically alone, in Bering Sea and in heavy weather. The boat turned sideways and was towed stern first for a short time until the sub broke free through the wings of the net. It cost us a day's fishing and extensive repair to the net. I feel that we were lucky because nobody was hurt and the vessel was still afloat. I don't know if it was one of ours or theirs!

The fishery is very valuable to the coastal communities. In 2008 the Whiting fleet caught approximately 270,000 metric tons (595,242,000 lbs) of fish. This equates to over 60 million dollars to the vessels, and over 250 million dollars to the processors. When an economic multiplier (x6) is applied, the value to the coastal community is over 1.5 billion dollars.

The value of vessels and gear is also high. A recent factory trawler sale was for 170 million dollars and a recent catcher vessel sale was for 35 million dollars. Maintenance and equipment costs are also high. Most of the vessels were built and are maintained in US shipyards and the supplies are bought locally. All of this is important to the local economy.

The fishery is also very sensitive to loud detonations and disturbance. We found this to be true when the oil exploration was going on off the West coast and in the Bering Sea. After the disturbance the fish scattered and became wary and it was difficult to find any concentration of fish. In my experience this has been true of all species of rock fish, Pacific Whiting, Alaska Pollack, Salmon, and Tuna. The fisheries are difficult enough as it is without adding something else to the mix. We have experienced that our own less powerful, less noisy, and less sophisticated sonar after too much use around a particular fish school, tend to educate the fish to our presence and make them very wary, hard to catch, and sometimes disperse and disappear. By experience, we know that acoustic signals affect fish behavior, both from the sonar and the fish finder/depth sounder.

If the NTRC is implemented there is a potential problem for the Whiting fishery, if we are interfered with by either exclusion and or interference. I personally feel that we can work this out, together. We need to have a working liaison between the US Navy and the Whiting Fleet, both on shore and at sea. We all have AIS systems and modern sophisticated electronics on our vessels and are used to working at close quarters with other vessels, in heavy weather, fog, and at night (we fish 24/7).

Another fishery that should be mentioned here is the Albacore Tuna fishery that takes place from May to November. There can be up to 1000 vessels, fishing from Cape St. James in Canada to the Channel Islands in California. Off the Oregon and Washington Coasts, the fleet fishes from 20 miles to over 500 miles offshore. I believe that they too should be contacted as they may have or create similar problems.

It would be optimum if we could:

- Inform each other of our positions and size of fleet working and the intention of each
- To steer you away from large concentrations of fish and fishing vessels.
- Inform you of marine mammal sightings
- And work together during the fishing season to solve any other problems that arise.

I also believe the US Navy's mission and training are very important to our country and know that my fellow fishermen feel the same way and will do their best to make things work.

Thanks

Capt. Frank B. Bohannon  
Neahkahnie Fisheries Inc.  
RF/V Cape Falcon  
5505 Huckleberry Lane  
PO Box 330 (mail)  
Oceanside, Oregon 97134

[fbbohannon@charter.net](mailto:fbbohannon@charter.net)

503 842 0888 Home  
503 801 6900 cell

To Naval Facilities Engineering Command Northwest  
Attn Mrs. Kimberly Kler

I would like to submit Alternative 3 to the Navy's  
Enhancement proposals: The Peace and Clean Oceans, Marine  
Animal Preservation and Enhancement Alternative

whereas "The Navy cares for the environment... The ocean is our home  
and protecting the maritime environment is not rhetoric - it is  
our life blood." <sup>1</sup>

Whereas the Navy has a "critical role in protecting the oceans  
highways and the global economy it serves." <sup>2</sup>

whereas 90% of trade is carried by the maritime shipping industry

Whereas 1.3 billion metric tons of goods travel through maritime  
shipping - about 75% of total U.S. trade

whereas \$1.1 trillion worth of goods are imported to and  
exported from the United States through maritime shipping <sup>3</sup>

whereas 90% of all marine debris is now plastic <sup>4</sup>

whereas the world's post consumer plastic trash from  
the goods, which travel the oceans highways, are  
collecting in the Central Pacific Gyre creating the  
Great Pacific Garbage Patch (GPGP) now two times the  
size of France and growing daily

whereas 1 million birds and 100,000 marine mammals  
die in the GPGP each year <sup>5</sup>

whereas the Albatross and Hawaiian Monk seal are  
close to extinction due to the GPGP <sup>6</sup>

whereas Dead Oceans are increasing along the Northwest  
Pacific coast of the United States

whereas whales are committing suicide rather than  
live with the unbearable disturbance of sonar

whereas an increasing number of birds are found dead,  
starved to death along Oregon's shores due to lack of food.

whereas the U.S. has fewer adversaries yet maintains greater  
military might than the history of the world has ever seen

whereas the world cannot afford war economically,  
spiritually, or ecologically

whereas it is the responsibility of the Navy not only to  
see the clear passage of goods through the seas, but  
to make sure those goods do not become trash in  
the oceans, a hazard to wildlife

Therefore, let it be resolved that the Navy will undertake  
a peace and massive ocean clean-up signing party and  
project, where it will endeavor to engage the maritime  
forces of friendly and formerly adversarial nations in  
an indefinite peace and brotherly love, clean oceans contract.

The first task will be to clean up the Great Pacific  
Garbage Patch in the doll drums and rescue and revive  
the strangled seals, turtles, birds and fish

Future projects will be undertaken as recommended  
by a consensus of environmental organizations.

Friends of the Beached Whale  
Eva Bostnick and David Parrish  
Tidewater OR

Footnotes:

1 - Protecting our Freedom, Sustaining Our Environment - Department of  
the U.S. Navy brochure, Secretary of the Navy, Donald C. Winter

2 - ibid

3 - ibid

4 - Lanfill-on-sea, Daisy Dumas, Ecologist magazine, Sept. 01

5 - ibid

6 - ibid

# United States Navy Public Hearing Comment Form

Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

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Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

Mailing this form to:  
Naval Facilities  
Engineering Command  
Northwest  
1101 Tautog Circle, Suite  
203

Silverdale, WA 98315-1101

ATTN: Mrs. Kimberly Kler - NWTRC EIS

All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: Lee Ann Bourcier

Organization/Affiliation: Citizen of Yachats, Oregon (on the coast)

Address: PO Box 1061

City, State, Zip Code: Yachats OR 97498

*Lee Ann Bourcier  
2/4/09  
(FYI - your email comment  
procedure would not  
accept my email)*

I oppose the Navy taking over the Air Force practice range off the Oregon coast for training that includes setting mines, sonar, and missile launches, among many other destructive things. The Navy's practice sorties will severely and negatively affect the already struggling Oregon coast economy -- certainly a horrible environmental impact. For example, the tourist economy will go further downhill; who will want to vacation near military exercises? In addition, the whale

watching industry will be hit hard both because whale watching charter boats will be periodically stopped and because the whales themselves are going to be reduced in number due to the use of sonar. The fishing industry is going to be negatively affected in the same way. Without the fishing and tourist industries, the Oregon coast will experience massive unemployment and loss of property value. We already have these problems. Please do not make the situation worse by conducting training exercises off the Oregon coast.

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Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: Alice L. Brickner

Organization/Affiliation: \_\_\_\_\_

Address: 15655 Hearst-Willits Rd.

City, State, Zip Code: Willits, OR 95490

Comments: \_\_\_\_\_

*This is unnecessary and will do much more harm than good. We have real national issues that need our attention and energy. The northwest coast of our country does not need and would not benefit from being militarized by the U.S. Navy. Please put a stop to this harmful and wasteful plan.*

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

\*Provide your mailing address to receive future notices about the Northwest Training Range Complex EIS/OEIS.

Feb 12, 2009  
Dear Naval Facilities  
I'm writing to ask you to  
NOT expand testing along the  
OR, WA + CA COAST!  
Sincerely,  
DAVID BRIDSON  
YACHTS, OR

P.O. Box 717  
Ft. Bragg, Ca 95437

4/9/09

Dear Mrs. Kier,

We vote NO on  
Navy Warfare testing program  
in our ocean. Stop poisoning  
all of us.

Sincerely,

Eileen Bostwick

P.O. Box 717  
Ft. Bragg, Ca 95437

Dear Mrs. Kier,

Please stop  
contaminating our ocean.  
No more testing/dumping chemicals  
killing our ocean.

Sincerely,

Eileen Bostwick

# ALMANAC

### rainfall

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Normal	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Actual	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intel through Apr. 1, 2008. Greenwood Ridge, 38.19, 124.36; Alton Ridge, 37.75, 124.75; Fort Bidwell, 38.12, 124.75; Canyon, 38.00, 124.75; Redwood, 38.75, 124.75; Fort Bidwell, 38.12, 124.75; Lakeview, 38.75, 124.75.  
\*No Report, The Total Measurements vary with the time of day they are taken.

### temperatures

#### Mar 31 - Apr 7

Location	Temp	Wind	Dir	Hum	Cloud		
Greenwood Ridge	55	59	54	54	57	60	69
Alton Ridge	55	59	54	54	57	60	69
Fort Bidwell	55	59	54	54	57	60	69

### ides

#### Apr 9 - Apr 15

Time	HT	Time	LT
12:00 am	4.9	12:00 am	-0.7
1:00 am	4.8	1:00 am	-0.8
2:00 am	4.7	2:00 am	-0.9
3:00 am	4.6	3:00 am	-1.0
4:00 am	4.5	4:00 am	-1.1
5:00 am	4.4	5:00 am	-1.2
6:00 am	4.3	6:00 am	-1.3
7:00 am	4.2	7:00 am	-1.4
8:00 am	4.1	8:00 am	-1.5
9:00 am	4.0	9:00 am	-1.6
10:00 am	3.9	10:00 am	-1.7
11:00 am	3.8	11:00 am	-1.8
12:00 pm	3.7	12:00 pm	-1.9

### unrise/Sunset

Time	HT	Time	LT
6:42	8:41	6:39	6:36
6:41	8:40	6:38	6:35
6:40	8:39	6:37	6:34
6:39	8:38	6:36	6:33
6:38	8:37	6:35	6:32

### unar Cycle

Phase	Time	Phase	Time
New Moon	Apr. 2, 7:34 am	Full Moon	Apr. 17, 6:36 am
1st Quarter	Apr. 5, 7:59 am	Last Quarter	Apr. 24, 8:23 pm

## MHRB

Other nominations were Jack and Sue Ouzens, who rehabilitated a shed at 453012 Little Lake St., Michael St. John, who rehabilitated a small barn at 45351 Calpella St., Louise Boedeker, who rebuilt a garage/pumphouse at 44900 Pine St., Category 1 Harvest Market at Mendocino's (1909) for site restoration, and owner Andrew Hindman, builder Andrew Hindman, builder restoration of Packard House barn and water-tower on Pine Street.

## IST

with a wider-based marketing effort, I am pleased to endorse the continuation of the Marine Science Technology program at the Mendocino Coast Education Center. Thank you

## Navy

From Page 1A

As the furor over the Navy's plans — some of it based in fact, some not — grew, outraged citizens called upon Rep. Mike Thompson and the Mendocino County Board of Supervisors to get answers. Last Tuesday's meeting was the result.

The Navy made a brief presentation, giving an overview of the range complex and explaining the need for the environmental study and some of the findings so far.

Addressing some of the "myths" that have in part fueled the outrage over the Navy's project, Mosher made it clear from the outset that:

"The Northwest Training Range Complex is not new. It's been in operation since before World War II and the Navy is not suggesting expanding the range itself. Training areas are limited to waters along the Washington and Oregon coasts and California Coast as far south as the southern Humboldt County line, and inland only in Washington State."

"The Northwest Training Range Complex nowhere operates any activities in Mendocino County or along its coast."

"The Navy does not conduct any weapons testing and is not proposing conducting any weapons testing in the range areas."

The Navy also brought

several charts outlining the types of training the Navy does, how often it does them and how much it wants to increase them.

For instance, the Navy conducts 366 anti-submarine warfare training exercises in the waters around Washington State per year. The Navy has two proposed new plans — Alternative 1 (slight increases in activity) and Alternative 2 (larger increases in activity, the Navy's preferred option).

Under Alternative 1, the anti-sub training would increase to 381 times per year, and under Alternative 2 to 387 times per year.

Mosher explained that thus far, the Navy's environmental report found no significant impacts in most areas (some hoots from the audience) but did find possible impacts to fish, turtles and marine mammals and therefore had called in the National Marine Fisheries Service to figure out what to do about that.

NMFS is the federal agency tasked with protecting all ocean species.

Public's questions

Once the briefing ended and the session opened to public comment, there was something of a tussle between the audience and the public's questions should be answered on the spot, or whether everyone should speak first and then have the Navy comment last.

At first, members of the audience spoke, asked questions and then sat down, but the audience quickly got frustrated that questions were not actually being answered. Supervisors John McCowen and David Colfax suggested it made more sense to let the Navy answer as they were asked and agreed to keep a three-minute limit on comments and questions.

Among the questions raised which struck a chord was one from resident Rosalind Peterson about a map the Navy produced in its draft study that indicated the Navy intended to expand its range down to the Bay Area, and a second question about a Navy request of NMFS to "take" or as she interpreted it, "kill" 3.5 million marine mammals over the next five years as part of its training process. She also held up a long list of toxic chemicals, including, she said, depleted uranium, which the Navy uses in its training activities that she said would pollute the oceans and find their way into Mendocino County air and water.

Navy operations specialist Brian Water explained the map Peterson was interpreting was actually meant only to give the reader an overall view of the area in which more specific maps are detailed, kind of a "where am I?" reference point, not an expansion of the range.

He said the term "take" is used by NMFS to indicate any contact with marine mammals. So, for instance, if a sonar ping goes out into the water and a whale or dolphin hears it, even if it isn't disturbed by it, that's called a "take" by the fisheries service for purposes of measuring the impact of sonar activities.

He emphasized the Navy's plans included no killing of marine mammals. He said if anyone thought the Navy would go out and drop a bomb into water where it knew a whale was swimming, they were wrong.

"The Navy wouldn't do that. The Navy doesn't do that," he said.

He also noted that public comment about the use of depleted uranium in training exercises had convinced the Navy to stop using it.

More questions and comments about the beauty and sanctity of the ocean and the need for the Navy to back off of its training in the Pacific Ocean followed, with more than one question about whether President Barack Obama was aware of or had signed off on the Navy's plans.

That question the Navy said it couldn't answer other than to say the process was continuing under the new administration. The Navy brass will eventually make the final decision about whether the Navy will be allowed to expand its training activities, a decision it hopes to have by the end of the year.

Comments on the Navy's EIS are due by Monday, April 13. Read more at [www.NWTRangeComplex.com](http://www.NWTRangeComplex.com).

## Approved permits

There were four permit requests and all were approved.

Thomas Thomson was granted a change to a previously approved plan for windows for a residence not yet constructed at 45081 Cabo St.

Judith Beam may change the location of the Mendocino Gems (studio and gallery) sign at 10483 Lansing St.

Comers of the Mouth, 45015 Ukiah St., will demolish a roted 24-year-old walk-in cooler and replace it with a new one.

Life is too short to sleep on a cheap mattress.

**FloBeds.com**  
Sleep Smarter

Built in Fort Bragg - Shipped Worldwide  
234 E. Redwood Ave  
964-3356

The First Personally Crafted Mattress

FM 95.3/95.9 KOZT.com mobile

# The COAST

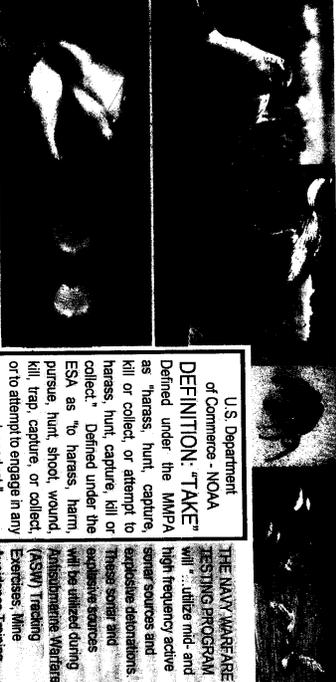
welcomes

## John Sebastian

# ACTION ALERT SAVE

## STOP THE NAVY FROM 'TAKING' OUR WATERS

### THEIR 5 YEAR WARFARE TESTING PROGRAM



West Coast Map of Marine Area Expansion - See Navy EIS

**SAVE OUR FISHING & WHALE WATCHING INDUSTRIES, our marine habitat, and protect the public from highly toxic chemicals like Red and White Phosphorus, Depleted Uranium, Chloroform, Aluminum Coated Fiberglass & Hoses, Lead, Lead Chloride, Chromium, Benzene, Toluene, Naphthalene, Ammonium Perchlorate, Potassium Perchlorate, and a whole host of other chemicals, known to be toxic to man and marine life, that are being served up on the Navy Warfare Chemical Menu" which contaminate our air, water, and soil.**

## TAKE ACTION TODAY - DEADLINES: APRIL 10 & 13, 2009

Contact all of your elected officials today - File Public Comment Complaints - write letters - sign this petition - ask your elected officials to oppose this Navy Warfare testing program.

<http://www.nwtrangecomplex.com/Documents.aspx> United States Navy Environment Impact Statement

<http://www.nwtrangecomplex.com/DocComments.aspx> U.S. Navy Public Comment Form Online

## WRITE TO: (Must be postmarked by the dates listed below)

Navy Facilities Engineering Command Northwest, 1101 Raiter Circle, Suite 203 Sewardville Washington 98715 ATTN: Mrs. Kimberly Kier - NWTRC EIS DEADLINE: APRIL 13, 2009

NOAA Public Comments DEADLINE: APRIL 10, 2009

Address to: Michael Payne, Chief, Permits Conservation and Education Division, Office of Protected Resources/National Marine Fisheries Service 1315 East-West Highway, Silver Spring, MD 20910-2825

U.S. Department of Commerce - NOAA DEFINITION: "TAKE" Defined under the MMPA as "harrass, hunt, capture, kill or collect, or attempt to harrass, hunt, capture, kill or collect." Defined under the ESA as "to harrass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

THE NAVY WARFARE TESTING PROGRAM WILL... utilize mid- and high frequency active sonar sources and explosive detonations. These sonar and explosive sources will be utilized during ANS/WME Vairants (ASW) Tracking Exercises; Mine Avoidance; Training;



NOAA Photo

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Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

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All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: Darlene Caldwell

Organization/Affiliation: \_\_\_\_\_

Address: 2562 Evergreen Paul Park

City, State, Zip Code: Shagbark, Wa. 98547

Comments: The public comment period gives the public a minimum of 45 days (Dec. 29, 2008 through February 11, 2009) in which to comment on the analysis presented in the draft EIS/OEIS (environmental impact statement and overseas environmental impact statement.)

We first read about the Navy's meeting in the evening Daily World newspaper from Thursday, Wash on Wednesday January 28, 2009.

A copy of the article is enclosed.

The article states that the first of two meetings would be at the Pacific Beach, Wa.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

*cont to pg 2 →*

1.

## Navy hearings being held here

### NAVY CONSIDERS EXPANDED TRAINING OFF THE COAST

BY RACHEL THOMSON  
The Daily World

Navy officials are holding two public hearings on Grays Harbor this week regarding a draft environmental impact statement about the proposed Northwest Training Range Complex, a series of test ranges to increase training activity along the West Coast.

Information and public hearing sessions are at the Pacific Beach Fire Hall, 4586 Highway 109, and Thursday at the Grays Harbor College Cafeteria. The information sessions begin at 5 p.m. and public hearings at 7 p.m.

In 2007, the Navy announced it was eyeing the Washington coast for a significant expansion of testing and training exercises.

square mile area from Nisqually Bay to California. The range is essential to sustain military readiness, support research, development, testing and evaluation activities, according to Navy spokeswoman Sheila Murray.

"The navy needs a realistic environment to train sailors," Murray said. "It also gives them an opportunity to train without traveling very far from home, which will save taxpayer dollars."

However, some are skeptical about the Navy's ability to increase its presence without harming the environment.

"We're not of the opinion that the Navy doesn't have the right to keep our people trained," said Fred Felleman, a marine consultant and activist in Seattle. "But

if you're going to have such a significant presence in the Northwest, you need to do this responsibly."

Felleman doesn't believe the Navy has done a significant job in the mitigation process. He said he's worried about marine mammals, which some studies say can kill marine mammals if used irresponsibly.

The Navy will present a draft of the environmental impact statement at the meetings this week. A final draft is due by August, and a decision may be made in September.

The environmental impact statement sets three alternatives:

- The No Action Alternative: Training and unit-level activity would continue at baseline levels.

- Alternative 1: This proposal is designed to meet current and near-term training requirements. It would increase the number of training activities to accommodate

changes associated with the use of new weapons systems, vessels and aircraft. It would also implement training activities associated with EA-18G Growler aircraft, guided missile submarine, P-8 Multi-mission Maritime Aircraft, and Unmanned Aerial Systems.

- Alternative 2: Alternative 2 would increase the level of training alternatives identified in Alternative 1 in addition to implementing range enhancements such as new air and sea surface targets, electronic signal emitters, development of a small-scale underwater training minefield and portable undersea tracking range.

On the Net: <http://www.nwtrangecomplexeis.com/>



### IN BRIEF

SEATTLE

2.

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Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

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All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: Dorlene Caldwell  
Organization/Affiliation: \_\_\_\_\_  
Address: 2562 Evergreen Paul Road  
City, State, Zip Code: Grayland, Wa. 98547  
Comments: cont. from page 1

five hall that every day starting at 5:00 a.m. for information sessions and 7:00 p.m. for public hearings. By the time most citizens would be arriving home for dinner and reading their evening paper the meeting would be in progress and half over. I attended the well programmed meeting with Naval personnel and their counterparts at Gray Harbor College the next evening on Thursday, January 29, 2009. The information was over-whelming, so I made every effort to understand and comprehend what was being stated by the different stations

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

and personal.  
cont to pg 3

2.

3.

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Name: Dorlene Caldwell  
Organization/Affiliation: \_\_\_\_\_  
Address: 2562 Evergreen Paul Road  
City, State, Zip Code: Grayland, Wa. 98547  
Comments: cont. from page 2

my core reason for attending, is my concern for all life in our Pacific Northwest and all life in the ocean around the world. Our National Security and our People's Security depends on how we care for our resources in the Pacific Northwest, the United States, in our oceans here and abroad, and in our many military facilities all over the world. If National Security is the primary focus of the Navy, then by now the Navy realizes that the world is a mirror and they will mirror back the pressure put in action in the environment.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

continue to pg 4  
→

3.

4.

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Name: Darlene Caldwell

Organization/Affiliation: \_\_\_\_\_

Address: 2562 Evergreen Park Road

City, State, Zip Code: Grayland, Wa. 98547

Comments: cont. from page 3

My concern is that the level of harm and death to marine animals will be accelerated exponentially with the addition of Alternative 1 to the existing level called an "action alternative."

Alternative 2 will not only include the existing "in action alternative" but include Alternative 1 PLUS all of the previous, include & implement range enhancements, adequately to support the need for new ships, aircraft and new undefined weapons systems and participate in joint (with allies) events here and all over the world.

My concern is for environmental practices

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

4.

continue to pg 5

5.

**United States Navy  
Public Hearing Comment Form  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement**



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- 3) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: Darlene Caldwell

Organization/Affiliation: \_\_\_\_\_

Address: 2562 Evergreen Park Road

City, State, Zip Code: Grayland, Wa. 98547

Comments: cont. from page four.

all over the world, as this is also an Environmental impact statement Overseas?

How I read that recent scientific and technological advances are only applied toward analyzing potential environmental effects. This means analyzing after an effect. In simple terms "after the destruction" or loss of marine life or whatever the destruction may be.

Implementing the existing protective measures of the 24/7 observers is an attempt to mitigate the damage, but deep down the Navy knows high powered intense sonar can & will destroy life and

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is no match for 3 - 24/7 observers. continue to page 6

5.

6.

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Name: Dorlene Caldwell

Organization/Affiliation: \_\_\_\_\_

Address: \* 2562 Evergreen Park Road

City, State, Zip Code: Grayland, Wa. 98547

Comments: \_\_\_\_\_

*Observers with 24/7 observations are unable to see marine life when the submarines are submerged. The very sonar (all levels) that the navy uses, we may be the same frequency of sonar that marine animals use and this could mean be so magnified that all life forms in its range are damaged or destroyed. The Navy does not know the results of increasing the sonar level and intensity of its activities here and around the world. The Navy does not know how developing an additional land-based electronic combat threat signal emitted along our coast*

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*will impact the marine environment.*

6.

7.

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Name: Dorlene Caldwell

Organization/Affiliation: \_\_\_\_\_

Address: \* 2562 Evergreen Park Road

City, State, Zip Code: Grayland, Wa. 98547

Comments: \_\_\_\_\_

*My husband and I are both concerned after reading further under "Potential Effects to the General Environment" that there is the potential for economic impacts to commercial fishing from use of the portable underwater tracking range and underwater training minefield. Knowing this, why would the Navy proceed with this destructive practice? It is the commercial fishing fleet that feeds myself and the Navy. Why would the Navy undermine the very industry that supports them with food? How can you not know that these actions will bring consequences?*

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7.

8.

# United States Navy Public Hearing Comment Form

Northwest Training Range Complex  
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Name: Dorlene Caldwell

Organization/Affiliation: \_\_\_\_\_

Address: \* 2562 Evergreen Paul Road

City, State, Zip Code: Clayland, Wa. 98547

Comments: \_\_\_\_\_

*Even in your brochure, the Navy states that the underwater world of marine mammals is complicated and difficult to survey. There is still much to learn about how marine life, travel and respond to human activities in the ocean.  
"Do No Harm" should be priority #1.*

*In looking at the very tiny figure 2 in your brochure (Puget Sound Training area of the Northwest Training Range Complex) I see where underwater detonation range (black dot) and the detonation training range (red dot) are placed.*

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8.

9.

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Name: Dorlene Caldwell

Organization/Affiliation: \_\_\_\_\_

Address: \* 2562 Evergreen Paul Road

City, State, Zip Code: Clayland, Wa. 98547

Comments: \_\_\_\_\_

*With so many earthquakes in the last few years, I contemplate if there have been unknown and unknown geological damage that could have resulted from underwater or detonation training? The Puget Sound is lined with all kinds of geological faults and of course the big one - Grand Staircase is a subduction fault. Our recent earthquake was just off of Hyston, and is there any unknown possibility of a connection between detonation or underwater areas? My last concern is that the Navy's EIS/OEIS was started on the previous administration in*

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*July 31, 2007.*

9.

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Name: Darlene Caldwell

Organization/Affiliation: \_\_\_\_\_

Address: \_\_\_\_\_

City, State, Zip Code: 2562 Evergreen Park Road

Comments: Shawland, Wa. 98547

*There was a huge amount of time that elapsed with many events in between that transpired. Who would have guessed how our economy would be presently? My concern is that the public was not given ample time to respond to the first meetings in Sept 2007 and not delayed in the information getting out for response but so quickly and late in the 60 day comment period, did this time.*

*I thank you for taking the time to have this meeting.*

*Thank you for having such well informed*

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Name: Darlene Caldwell

Organization/Affiliation: \_\_\_\_\_

Address: 2562 Evergreen Park Road

City, State, Zip Code: Shawland, Wa. 98547

Comments: \_\_\_\_\_

*personal that were very patient with my learning curve.*

*We are all in this quest called "life" together, we in the name of National Security, let us all have a conversation like never before, let us truly listen to each other, let us learn from one another and hold sacred the very planet that supports all LIFE!*

*Love & Light*

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

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*bicatch  
fishing*

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 1101 Tautog Circle, Suite 203  
 Silverdale, WA 98315-1101  
 ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address *hnl/nw*

All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: Lois CAMERON

Organization/Affiliation: \_\_\_\_\_

Address:\* \_\_\_\_\_

City, State, Zip Code: \_\_\_\_\_

Comments: I am opposed to any Navy training activities on the Oregon Coast. I do not see how the price of the harm to our peaceful coastline + its beauty is worth what the navy needs to do.

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 Silverdale, WA 98315-1101  
 ATTN: Mrs. Kimberly Kler - NWTRC EIS

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All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: ALICE CAMP

Organization/Affiliation: \_\_\_\_\_

Address:\* 65 KNOLL RD

City, State, Zip Code: SAN RAFAEL, CA 94901-3626

Comments: \_\_\_\_\_

Sonar used in research, training, navigation, weaponry, and for all other purposes is known to have unfortunate (sometimes fatal) effects on marine mammals. Please stop the use of sonar in any area where the sonar can effect whales and other marine mammals.

Alice Camp

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

\*Provide your mailing address to receive future notices about the Northwest Training Range Complex EIS/OEIS.

Re: NWTTC EIS/OEIS

Mar. 8, 2009

to Naval Facilities Engineering Command NW:

I am writing to strongly object to the proposal to increase operations at NAS on Whidbey. We live on the south end of Lopez Island & are often disturbed by very loud, low-flying jets over our home. These occur both day & night. We moved here to get away from noise & traffic. We want fewer flights over Lopez, not more!

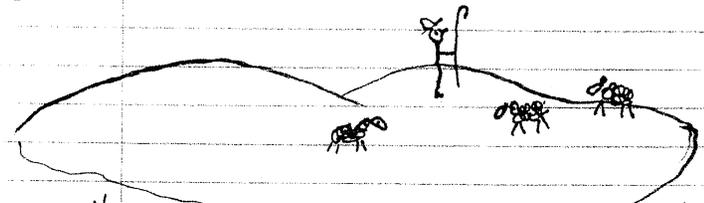
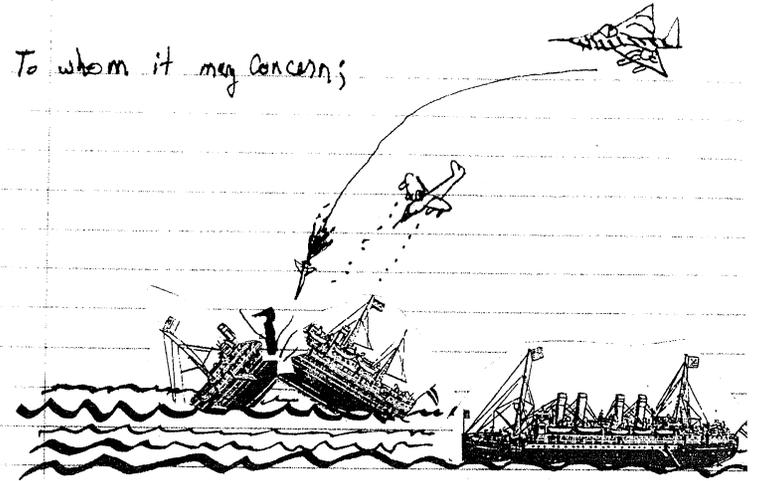
They bother us, our neighbors, our ducks & chicken and even the wildlife. When they fly over, we feel as though we are in a war zone being attacked by our own military.

Please be considerate of your neighbors & limit the flights over places where people live.

*Christine Carter*

March 8, 2009

To whom it may concern;



Here we are on Lopez Island, quietly tending our sheep - When suddenly, when least expected, the full sound and fury of techno-industrial war machinery interrupts our idyl.\* Not only is this Grand Kabuki of the Macabre enormously ineffectual at quelling Pashtun wedding parties - it disturbs my ducks.

Yours truly, *Stephen Carter*

\* That's "idyl", Not "idol", and not "idle".

United States Navy  
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- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kier - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than March 11, 2009, to be considered in the Final EIS/OEIS.

Name: Michael Charms

Organization/Affiliation: \_\_\_\_\_

Address: \* 12773 PINE AVE #

City, State, Zip Code: POTTER Valley CA 95469

Comments: The public which you are supposed to protect has not been informed of these experiments and their potential hazards. The ~~are~~ citizens of this democracy have a right to make an informed decision as to which practices are too great of a detriment to our environment and future to be implemented.

Sincerely,

Michael Charms

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

*Elisabeth Chowning*

3/9/09

To: Kimberly Kier

From: Elisabeth Chowning (206-938-8394)

I would like to urge the U.S. Navy not to increase training activities on its NW Training Range Complex. Please complete a more comprehensive report on environmental impacts and look for alternatives that are not detrimental to marine mammals nor a priceless ocean area.

Thank-you!

P.S. I know I have many friends who agree with me who are not writing, I'm not a lone voice. ☺

7945 - 30th Avenue, S.W., Seattle, Washington 98126

**United States Navy**  
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Name: James Ciecko \_\_\_\_\_

Organization/Affiliation: private citizen \_\_\_\_\_

Address:\* 19537 Landing Road \_\_\_\_\_

City, State, Zip Code: Mt. Vernon, Washington 98273 \_\_\_\_\_

Comments: As a resident of western Skagit County my primary concern is aircraft noise. Based on past experience I do not think that the conclusion that aircraft noise in the OPAREA which covers much of Skagit County is non significant. The claim that the aircraft noise is intermittent is not always the case. My own experience is that on some days the noise from aircraft coming and going is almost continuous. This has been especially true at night on some occasions. The Navy is well aware that aircraft noise has generated many complaints in Skagit County over the years, yet does not discuss this in the EIS. Also I do not believe that the Navy follows its procedures to mitigate this noise as stated in section 3.5.4.1. We have not been contacted later by the ombudsman when we have called in complaints. Based on my personal observations and discussions with neighbors it seems that at some times the planes are being flown in a manner which maximizes the noise levels. Finally, I do not think Skagit County has been fairly considered in this process. No public meetings have been held in this county, nor are the documents available at libraries in this county. The EIS refers to working with Oak Harbor and Island County planners. It seems that the same attention should be afforded Skagit County. In talking to friends and neighbors I do not have much of a sense that the Navy has made an effort to publicize these significant changes to a large group of citizens who will be affected. Finally, in reaching the conclusion that additional aircraft noise will be non-significant in the future because it has been treated as being non-significant in the past is a convenient argument to make. This area has been growing and changing. What was acceptable in the past is not necessarily acceptable today and in the future. Isn't that one of the reasons this whole process is required to be undertaken in the first place? We deserve a recognition of the the fact that the aircraft noise issue is important to many people. We deserve a comprehensive mitigation plan as part of the Navy's future operations in the Northwest.

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Naval Facilities Engineering Command Northwest

1101 Tautog Circle, Suite 203

Silverdale, WA 98315-1101

Attention: Mrs. Kimberly Kler-NWTRC EIS/OEIS

The alternatives offered in the Navy's proposal for expanded training in the Northwest Training Range Complex do not analyze or provide adequate protection for humans, animals and environment. I ask the Navy to rework the draft EIS to include the following modifications in all alternatives being considered:

- ❖ Reduce the potential for oil spills, and collisions by having all submarines on the surface to the approaches to and in the Straits of Juan de Fuca
- ❖ Eliminate all use of depleted uranium & white phosphorus by the Navy
- ❖ Ban at-sea dumping practices of the Navy - no old ammo, no petroleum, plastics, toxics, etc.
- ❖ Set aside from all training uses several protection zones, including: (1) the Olympic Coast National Marine Sanctuary; (2) all inshore waters of Greater Puget Sound (including the Strait of Juan de Fuca and Strait of Georgia); (3) Lower Continental Slope waters between the 500 and 2,000m depth contours; (4) Outer coastal waters between the shoreline and the 100m depth contour (and buffer zone); and (5) Canyons and Banks of Northern Washington State and Oregon.
- ❖ Adopt operational procedures and mitigation measures so as to make extraordinary sonic events and other impacting activities less likely to disrupt whale populations.
  - Cease all sonar exercises in Puget Sound & Haro Strait to avoid adding stress to the resident Orcas
  - Increase the size of the US Navy's cetacean safety zones to the sizes of those used by other Navies
  - Seasonally avoid migration routes and feeding or breeding areas
  - Monitor for marine mammals one hour before training begins.
  - Reduce sonar power or suspend sonar activities during times of low visibility, when whales are hard to spot
  - Use of sonar and other noise-emitting activities at the lowest practicable sound level
  - Increase the volume of active sonar gradually to give nearby marine mammals a chance to flee.
- ❖ Set up hydrophones throughout the Sound for public access.

April 5, 2009

Naval Facilities Engineering Command Northwest  
ATTN: Mrs. Kimberly Kier – NWTRC EIS  
1101 Tautog Circle, Suite 203  
Silverdale, Washington 98315

To Whom It May Concern:

I am writing to demand that the killing (what you call "taking") of marine mammals for your Pacific Ocean Warfare testing program be stopped immediately.

What the military is doing is insane. Killing peaceful sentient beings is utterly beyond rational thought. Certainly with all of the technological advancements in the military sector you don't need to be killing anything to advance your warfare training.

STOP KILLING PEACEFUL SENTIENT MARINE MAMMALS!!

Sincerely,



Brian Cole  
507 White Haven Dr.  
Seven Fields, PA 16046

Kimberly,  
Please forward this letter to The highest commanding officer. Thank you.

Brian Cole  
Taxpayer

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Name: Camby Collier

Organization/Affiliation: \_\_\_\_\_

Address: \* POB 181

City, State, Zip Code: Coos Bay, OR 97420

Comments: \_\_\_\_\_

Coos Bay/North Bend is the largest area on the coast. We did not get a public hearing, nor is there a copy of the EIS in our local library.

This is wrong. We need a public meeting so we know what is going to happen + how it will affect us.

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United States Navy  
**Public Hearing Comment Form**  
 Northwest Training Range Complex  
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1201 New York Avenue, NW • 4th Floor • Washington, DC 20005  
 P. 202.232.3900 • F. 202.462.8754 • www.OceanLeadership.org



February 18, 2009

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Name: DAVE THIES, PRESIDENT

Organization/Affiliation: COLUMBIA GORGE AUDUBON SOCIETY

Address: \* P.O. Box 64

City, State, Zip Code: White Salmon, WA, 98672

Comments: WE HAVE GRAVE CONCERNS ABOUT THIS PROPOSAL: (1) IMPACTS ARE NOT PROPERLY OR SUFFICIENTLY ANALYZED, (2) IT APPEARS DAMAGE TO MAKING LIFE IS UNDERESTIMATED, (3) THE CUMULATIVE IMPACTS ARE INADEQUATELY ANALYZED, (4) INADEQUATE MITIGATION IS APPARENT. THESE SPECIAL AREAS OF BIOLOGICAL CONCERN NEED TO BE PROTECTED: (1) INSHORE WATERS OF Greater PUGET SOUND STRAITS OF JUAN DE FUCA & GEORGIA, (2) Lower Continental Slope water between 500 & 2000 m in depth, (3) OUTER COASTAL WATERS from shoreline & the 100 m depth contour (& buffer zone), (4) Canyons & BANKS OF N. WA. STATE & OR., & (5) The Olympic Coast NATIONAL MARINE Sanctuary. OUR MARINE FISHERIES HAVE BEEN ALREADY SACCKED, IT IS NOT A GOOD idea to NOW MAKE WAR ON THIS FISHERY. WHEN THE FISHERY IS GONE, HISTORY WILL LOOK BACK AND NOTE THIS PROPOSAL AS ONE OF THE MANY CAUSES OF THE decline & FALL OF THE FISHERY. IT IS TIME TO STOP, REFLECT, LOOK AT THE BIGGER PICTURE, & START THE REPAIR. WE OPPOSE Any increase

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

OF damage to The FISHERY & MARINE animals, we support The Long haul to recovery, NO ACTION, PLEASE.

Dave Thies pres.  
 Col. Gorge Audubon Society

**MEMORANDUM FOR:** Naval Facilities Engineering Command Northwest  
 1101 Tautog Circle, Suite 203  
 Silverdale, WA 98315-1101  
 ATTN: Mrs. Kimberly Kler - NWTRC EIS

**FROM:** The Consortium for Ocean Leadership  
 Ocean Observing Initiative Project Office  
 1201 New York Avenue, 4<sup>th</sup> Floor  
 Washington, DC 20001

**SUBJECT:** The Ocean Observatories Initiative (OOI) Project

Dear Mrs. Kler,

The purpose of this comment is to introduce the Ocean Observatories Initiative (OOI) project to the U.S. Naval Facilities Engineering Command Northwest with respect to the Navy's Northwest Training Range Complex EIS/OEIS and NAVSEA NUWC Keyport Range Complex EIS/OEIS. The Consortium for Ocean Leadership is the lead management organization for the proposed installation and operation of the Ocean Observatories Initiative (OOI) Network. The construction of this ocean observatory will be funded through a cooperative agreement between Ocean Leadership and the National Science Foundation (NSF), with funding from the NSF Major Research Equipment Facilities Construction (MREFC) account. The OOI Project is managed by Ocean Leadership (OL) in collaboration with academic-based Implementing Organizations: the University of Washington, Woods Hole Oceanographic Institution, University of California – San Diego, Oregon State University, and Scripps Institution of Oceanography.

**Overview of OOI**

To provide the U.S. ocean sciences research community with the basic sensors and infrastructure required to make sustained, long-term, and adaptive measurements in the oceans, the NSF's Ocean Sciences Division is developing the OOI from community-wide, national, and international scientific planning efforts. The OOI builds upon recent technological advances, experience with existing ocean observatories, and lessons learned from several successful pilot and test bed projects. The proposed OOI will be an interactive, globally distributed and integrated network of cutting-edge ocean observing capabilities. This network will enable the next generation of complex ocean studies at the coastal, regional, and global scale. The OOI is a key NSF contribution to the broader effort to establish the proposed operationally focused national system known as the Integrated Ocean Observing System (IOOS). As these efforts mature, the research-focused observatories envisioned by the OOI will be networked to become an integral part of the IOOS and in turn will be a key and enabling U.S. contribution to the international Global Ocean Observing System (GOOS) and the Global Earth Observation System of Systems (GEOSS).

**DISCOVERY • UNDERSTANDING • ACTION**

The OOI infrastructure will include cables, buoys, underwater vehicles, moorings, junction boxes, power generation (solar, wind, fuel cell, and/or diesel), and two-way communications systems. This large-scale infrastructure will support sensors located at the sea surface, in the water column, and at or beneath the seafloor. The OOI will also support related elements, such as data dissemination and archiving, modeling of oceanographic processes, and education and outreach activities essential to the long-term success of ocean science.

The OOI represents a significant departure from traditional approaches in oceanography and a shift from expeditionary to observatory-based research. It would include the first U.S. multi-node cabled observatory; fixed and relocatable coastal arrays coupled with mobile assets; and advanced buoys for interdisciplinary measurements, especially for data-limited areas of the Southern Ocean and other high-latitude locations.

#### Global, Regional, and Coastal Scale Nodes

The OOI design is based upon three main components at global, regional, and coastal scales. At the global and coastal scales, mooring observatories would provide locally generated power to seafloor and platform instruments and sensors for data collection, and use a satellite link for data transmission and communication to shore and the Internet. Up to six Global Scale Nodes (GSN) or buoy sites are proposed for ocean sensing in the Eastern Pacific and Atlantic oceans. The Regional Scale Nodes (RSN) off the coasts of Washington and Oregon will consist of seafloor observatories with various chemical, biological, and geological sensors linked to shore by submarine cables that provide power and Internet connectivity. Coastal Scale Nodes (CSN) will be represented by the Endurance Array off the coast of Washington and Oregon and the relocatable Pioneer Array off the coast of Massachusetts. In addition, there will be an integration of mobile assets such as autonomous underwater vehicles (AUVs) and gliders with the GSN and CSN observatories.

#### Environmental Compliance and Interagency Coordination

The Final Programmatic Environmental Assessment (PEA) for the OOI pursuant to the requirements of NEPA (42 United States Code § 4321 et seq.) and the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (Title 40 Code of Federal Regulations §§ 1500-1508) can be found on the NSF Division of Ocean Sciences (OCE) Environmental Compliance website: [http://www.nsf.gov/geo/oce/pubs/OOI\\_Final\\_PEA\\_Jun08.pdf](http://www.nsf.gov/geo/oce/pubs/OOI_Final_PEA_Jun08.pdf). This document contains a detailed description of the proposed OOI network design and infrastructure. The NSF concluded the OOI PEA with a Finding of No Significant Impact (FONSI), found on: [http://www.nsf.gov/geo/oce/envcomp/OOI-PEA\\_FinalFONSI\\_020309\\_sm\\_file.pdf](http://www.nsf.gov/geo/oce/envcomp/OOI-PEA_FinalFONSI_020309_sm_file.pdf).

We note that the OOI research facility and operations are not considered in the NWTRC Draft EIS (for instance under Chapter 4, Cumulative Effects: 4.1.3.7 Scientific Research). The northern extent of our fixed research facility lies south of the NWTR W-237A Warning Area and outside of the Olympic Coast National Marine Sanctuary. However, we note the close proximity of our observation platforms on the shelf and slope west of Grays Harbor (Endurance Array) to W-237A. Also, the observation platforms west of Newport (Endurance Array) lie close to, or within W-570. Science platforms on the cabled Regional Scale Nodes of the OOI also lie below various offshore Warning Areas. Essentially all of the OOI Endurance Array and much of the Regional Scale cabled observing network lie within the general Pacific Northwest Operating Area (PACNW OPAREA).

At this time, supplementary environmental analyses are being initiated to consider possible additions to the OOI proposed design as described in the OOI Final PEA. Please refer to the OOI Final PEA (Chapter 2, section 2.2 Proposed Action) for descriptions of the proposed infrastructure. The possible additions to the OOI design being considered are:

1. The addition of two moorings, paired surface and subsurface, at 500 meters depth on the Grays Harbor Line (description of the Grays Harbor Line in the OOI Final PEA, section 2.2.1.1 on page 20; also see Figure 2-1 for location of the Grays Harbor Line and Figure 2-2 for a diagram of the paired moorings).
2. Undersea cable connection from the Subduction Zone (N4) of the Region Scale Nodes to the subsurface moorings at the 500 and 80 meter sites on the Grays Harbor Line (see Figure 2-8 on page 30 for the location of N4).
3. Addition of a Global site in the Argentine Basin of the Southern Atlantic Ocean, approximate location at 42°S, 42°W (see Figure 2-13 on page 39 for a diagram of proposed mooring infrastructure).

We will continue to consult with the Navy COMSUBPAC and COMSUBGRU NINE on the operation of these research facilities, per NAVSEA Instruction 4740.1A, during the USCG PATON and JARPA permitting processes. We will also continue our coordination with NAVFAC Headquarters, Naval Submarine Cable Protection Office. Should you have any questions or desire additional information, please feel free to contact me by phone at 202-787-1604 or via email at [sbanahan@oceanleadership.org](mailto:sbanahan@oceanleadership.org). We look forward to the ongoing coordination of this ocean observing facility with Navy operations.

Best regards,



Susan Banahan  
Associate Director, Ocean Observing  
Consortium for Ocean Leadership

cc: Tim Cowles, Director, Ocean Observing, OL  
Stuart Williams, Director of Engineering, OL  
Libby Signell, Project Manager, WHOI  
Robert Collier, Project Manager, OSU  
Peter Barletto, Project Manager, UW  
Matthew Arrott, Project Manager, UCSD  
Shelby Walker, Project Officer, NSF



*Has Kler,*  
UNFORMATED COMMENT SUBMITTED  
TO  
NWTRC EIS WEBSITE  
ON 2/18/09.

*SB*

1201 New York Avenue, NW • 4th Floor • Washington, DC 20005  
P. 202.232.3900 • F. 202.462.8754 • www.OceanLeadership.org

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
Attention: Mrs. Kimberly Kler-NWTRC EIS/OEIS

To Whom It May Concern,

The Puget Sound basin is not a suitable environment for Navy sonar and explosives training because of it is an echo chamber which causes harmful effects on marine mammals, fish and sea life. Because of the high volume of boat traffic, both commercial and pleasure, the Naval training exercises with subs and ships create a hazard for navigation, create dangerous wakes for small boaters, limit access, effect fish stocks and pollute our fragile environment that many are dependent upon for survival, for work and are what makes Puget Sound a high value area for living and vacationing. The National Marine Sanctuary should also be off limits, as is intended, for the protection of the ecosystem of our NW Pacific and interior waters.

The alternatives offered in the Navy's proposal for expanded training in the Northwest Training Range Complex do not provide adequate protection for humans, animals and environment. I ask the Navy to rework the draft EIS to include the following modifications in all alternatives being considered:

- Reduce the potential for oil spills, and collisions by having all submarines on the surface to the approaches to and in the Straits of Juan de Fuca
- Eliminate all use of depleted uranium by the Navy
- Ban at-sea dumping practices of the Navy - no old ammo, no petroleum, plastics, toxics, etc.
- Set aside the Olympic Coast National Marine Sanctuary from all training uses
- Adopt operational procedures and mitigation measures so as to make extraordinary sonic events less likely to disrupt whale populations.
- Cease all sonar exercises in Puget Sound & Haro Strait to avoid adding stress to the resident Orcas
- Increase the size of the US Navy's cetacean safety zones to the sizes of those used by other Navies
- Avoid key whale habitat by putting some areas off-limits to sonar training
- Seasonally avoid migration routes and feeding or breeding areas
- Monitor for marine mammals thirty minutes before training begins.
- Reduce sonar power during times of low visibility, when whales are hard to spot
- Increase the volume of active sonar gradually to give nearby marine mammals a chance to flee

As important as training is to the Navy, I urge you to amend all of the Alternatives with the modifications above.

Yours truly,  
Candice Cosler  
2607 Haines St.  
Port Townsend, WA 98368

cc: Senator Maria Cantwell  
Senator Patty Murray  
Congressman Norm Dicks

United States Navy  
**Public Hearing Comment Form**  
 Northwest Training Range Complex  
 Environmental Impact Statement /  
 Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
 1101 Tautog Circle, Suite 203  
 Silverdale, WA 98315-1101  
 ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than March 11, 2009, to be considered in the Final EIS/OEIS.

Name: Laurie Cross

Organization/Affiliation: \_\_\_\_\_

Address: \* P.O. Box 241

City, State, Zip Code: Husum WA 98623

Comments: My family owns property at the Oregon coast. I oppose any new or increased Navy activities as proposed. My concerns are: 1) The negative effects of sonar and other activities on marine life, which have been well-documented in studies, 2) negative effects on tourism, and 3) negative effects on fishing.

I would especially like the following area to be protected: 1) All inshore waters of Greater Puget Sound (including Strait of Juan de Fuca and Straight of Georgia, 2) Lower Continental Slope waters between 500 and 2000 m. depth)

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

Contours. 3) Outer coastal waters between the shoreline and the 100 m. depth contour (and buffer zone), 4) Canyons and Banks of Northern Washington State and Oregon, 5) Olympic Coast National Marine Sanctuary. - Laurie Cross

United States Navy  
**Public Hearing Comment Form**  
 Northwest Training Range Complex  
 Environmental Impact Statement /  
 Overseas Environmental Impact Statement



Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
 1101 Tautog Circle, Suite 203  
 Silverdale, WA 98315-1101  
 ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than March 11, 2009, to be considered in the Final EIS/OEIS.

Name: John Crow

Organization/Affiliation: \_\_\_\_\_

Address: \* 5374 Quiet Cove Road

City, State, Zip Code: Anacortes, WA 98221

Comments: I write to strongly oppose any increase in flights from the Whidbey Is. Air Base. I feel that even at current levels, the noise pollution is negatively impacting this beautiful and quiet area, the jewel of our state. We are ruining this area by using as a practice course.

Deception Pass state park in both Skagit and Island counties is dramatically impacted by both day and night maneuvers, as are the buoys on Hope Island. Even a drift on the coastal rivers is negatively impacted.

With a surplus of military bases, I believe the Whidbey base should be closed and the beautiful, sandy, terminus of the straights of Juan de Fuca should be added to Deception State Park.

I will not support any elected official that supports increased flights in the islands.

Sincerely, John S. Crow

cc. governor

Rick Larsen

State Parks Dept.

**United States Navy  
Public Hearing Comment Form**  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Depositing this form at the Comment Table before you leave tonight.
- 2) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 3) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: Randi Dalton  
Organization/Affiliation: Save Our Coast/Coast Protection  
Address: P.O. Box 214  
City, State, Zip Code: Laytonville, CA, 95454  
Comments: one earth - no space; paranoia -  
time to STOP WAR what if?  
Rachael Carson - Real-Beauty

plastic island - GYRE - Real ISSUES, cleanup ->

sonar - hurts ears, - interferes whales  
instinct, homing device, migration routes  
7th generation - 150 years - Incomplete  
earthquakes - STUDIES

Noise - cumulative impacts  
damages (why?) costs, BANKRUPT GOVT,  
0x0=0 Trillions vs 2% growth @ yr.  
Albion, Caspar, Westport, Usall - earth-

Reality - Washington whales - loss? conserve  
preserve  
ALTERNATIVE - NO PROJECT protect

fish - capazone, salmon, surf. fish  
seals  
sea lions  
whales  
pelicans  
cormorants  
ducks -  
loss of whales -  
dead -  
Krill  
seaweed  
plankton  
abalone  
sea urchins  
COSTS - ? Real  
cleanup - irreparable  
damage

Save our Pristine  
Coast -  
one of last beautiful  
untouched lightly used  
coast-line

T.L. Danielsen 654 Pavey Blvd., Lopez Island, WA 98261  
March 5, 2009

Mrs. Kimberly Kler  
NWTRC ES/OEIS  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle  
Silverdale, WA 98315-1101

Dear Mrs. Kler,

I have just learned that a decision is about to be made regarding the use of the Whidbey Island Naval Air Base. Apparently the Environmental Impact Statement process for these proposed changes began in the Fall of 2007 and EIS comments are due by March 11 of this year.

The nature of the changes (EA6-B Prowlers replaced with E-18 Growlers, increased number of flights, training including air-to-air missiles, etc.) will certainly have an impact on those of us living in the San Juan Islands. Yet we were not informed of the EIS process, and there have not been any meetings in this county.

At the least, I ask for an extension of time for receiving EIS comments. Ideally, I would hope we could have a meeting in San Juan County to allow discussion and to enter comments into the record.

It is hard to imagine that an Impact Statement could be taken seriously when those who will feel the impact have not been addressed.

Best Regards,

*Terry Danielsen*

Teresa L. Danielsen

CC:  
President Barak Obama  
Senator Maria Cantwell  
Senator Patty Murray  
U.S. Representative Rick Larsen

309 NE 8th St  
Coupeville, WA 98239  
2/15/09

Attention Kimberly Kler  
1101 Tautog Circle  
Silverdale, WA 98315-1101

Dear Navy:

I support the No Action Alternative.

I am concerned about the potential adverse environmental effects of the expanded activities.

The sonar will likely affect the Orcas and other marine mammals. Sonar is known to damage the ears of Orcas and can result in death. I am also concerned that underwater detonations could constitute harassment of whales protected by the ESA. Your EIS indicates that there is no data on hearing for many whale species.

I am concerned about the effect of depleted uranium and other heavy metals and toxins released into the marine environment. I am not sure there is much knowledge regarding the bioavailability of DU in this situation.

In regard to the Orcas, there is not much room for error - they are nearly extinct. There are also too many other ~~concerns~~ health and safety concerns to warrant proceeding with these activities.

Sincerely,  
Ann Dayhauer  
*Ann Dayhauer*



Linda S. Adams  
Secretary for  
Environmental Protection



## Department of Toxic Substances Control

Maureen F. Gorsen, Director  
1001 "I" Street  
P.O. Box 806  
Sacramento, California 95812-0806



Arnold Schwarzenegger  
Governor

January 22, 2009

Ms Kimberly Ker – NWTRC EIS/OEIS  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101

### RE: NORTHWEST TRAINING RANGE COMPLEX ENVIRONMENTAL IMPACT STATEMENT/OVERSEAS ENVIRONMENTAL IMPACT

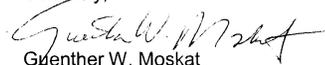
Dear Ms. Ker:

The Department of Toxic Substances Control (DTSC) appreciates the opportunity provided by the Department of Defense to review and comment on the Northwest Training Range Complex Environmental Impact Statement/ Overseas Environmental Impact Statement (EIS/OEIS). The EIS/OEIS addresses ongoing and proposed military training and testing activities, as well as proposed enhancements to the capabilities of the Northwest Training Range Complex.

A review of the EIS/OEIS indicates that none of the activities or potential impacts analyzed in the document appears to fall within the jurisdiction of any DTSC boards, departments or offices. As such, no specific comments on the scope or content of the EIS/OEIS are considered necessary at this time.

Please contact me at (916) 322-8955 or [gmoskat@dtsc.ca.gov](mailto:gmoskat@dtsc.ca.gov) if you should have any questions regarding our review of the EIS/OEIS.

Sincerely,

  
Gwenter W. Moskat  
Supervising Environmental Planner

cc: Maureen Gorsen, Director  
Elizabeth Yelland, Chief Counsel

Naval Facilities Engineering Command Northwest  
Attn: Kimberly Kler  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315

### More Military Action Off the NW Pacific Coast

I am writing to document my opposition to any increase in more Military Action Off the NW Pacific Coast. If anything, training activity of this nature should be decreased. These are the reasons why I believe this to be the case.

1. The US Military already spends more on it's defense than all the other nations in the world combined! This is a horrifying figure that all future expenditures should be measured against.
2. There is no current threat to this nation that warrants this kind of increase in military action off the NW Pacific Coast.
3. The use of ELF and other "active" radar has proved harmful to sea mammals, and some of these species are already endangered. There is no threat to this nation to justify the use of such a weapon or detection system as to justify the indiscriminate loss of threatened species, or other species as well.
4. At a time when our nation is being crippled by endless wars and other economic travesties, we should be scaling back on the kind of training activities that use single use expenditures, like bombs and explosives.
5. If you want to train soldiers closer to home, then simply don't send them so far away. Cut back on the kinds of training that uses excessive amounts of travel.
6. Given the fault lines along the Pacific Coast, is it really wise to be dropping major bombs and explosives and sending out unnatural sound waves near our coasts?
7. It appears the Navy can afford to spend millions on PR campaigns to brand it's activities as examples of Environmental Stewards, as it did on the website where comments were supposed to be taken. During the Bush years the Navy spent considerable energy fighting challenges to it's unchecked power to circumvent the Marine Mammals Protection Act. We must fight this kind of publicly funded propaganda designed to support increases in military activity and be aware of it when considering questions such as these.
8. Over 50% of every tax dollars goes to support the military, which is all too often used to support corporations, where greed works against the best interest of this nation, it's inhabitants and the world. Any increase in military activity off this coast is not the best interest of anyone except weapons manufacturers.
9. Increases of some radar activities have a much greater chance of harming the Sound and our ocean, the creatures in our ocean, which are some of our greatest resources, than helping them.

It's time to start saying no to military escalation, both at home and abroad. It is time to stop inflicting violence whenever and wherever to whomever and whatever and forever. Our own unchecked belligerence is the biggest threat we face and it's time we faced that threat and say no to more military action in the Pacific!

Jacquelyne DeVincent, MA  
1836 26<sup>th</sup> Ave  
Seattle, WA 98122





## United States Department of the Interior

OFFICE OF THE SECRETARY  
Office of Environmental Policy and Compliance  
620 SW Main Street, Suite 201  
Portland, Oregon 97205-3026



9043.1  
IN REPLY REFER TO:  
ER09/35

February 11, 2009

Kimberly Kler  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315

Dear Ms. Kler:

The U.S. Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement/Overseas Environmental Impact Statement (DEIS), for the Northwest Training Range Complex, WA, OR; and CA. The Department offers the following comments for use in developing the Final Environmental Impact Statement (FEIS) for the project.

### GENERAL COMMENTS

#### Description of Alternatives and Effects Analyses:

In reviewing the DEIS, it has been found to include many of the proposed actions found in the *NAVSEA Keyport Range Complex Expansion*. The action areas for these two operations overlap, and many of the actions occur [(1) on the ocean surface, (2) under the ocean surface, (3) in the air, and (4) on land] within the action area and comprise components of the other action's [training, research, development, test and evaluation (RDT&E)] activities, and equipment. The FEIS needs to show how these two actions are discrete and are neither interrelated nor interdependent, specifically in respect to effects to threatened and endangered species and designated critical habitat. If demonstrated to be discrete actions, the FEIS cumulative impact section should analyze this proposed action in conjunction with the proposed *NAVSEA Keyport Range Complex Expansion*.

The DEIS refers to the nearshore marine refuges, and the Olympic Coast Marine Sanctuary; however, no mention of the Washington Islands Wilderness, a 452-acre area designated in 1970 that has restrictions on entry (200 yards) and aircraft flyover height (2000-foot floor). This area contains habitat, forage, and breeding areas for listed threatened and endangered species and species of concern. If any actions are proposed within or adjacent to the designated wilderness area, then the FEIS should include an

analysis of the scope of those activities, any associated effects of those activities, and whether the activities are consistent with the purpose of the Wilderness Area.

The proposed duration of the Alternatives are not clearly described in the DEIS. The FEIS needs to clearly show the duration of the Alternatives.

It is difficult to gain a comprehensive view of all the conservation measures when they are interspersed throughout such a document. Providing a discrete section recapitulating all conservation measures proposed would allow the reviewer to clearly identify the conservation measures to be implemented. The Department recommends that a discrete conservation measure summary section be provided in the FEIS.

Stated throughout the document is "*many of these items are inert*," relating to expended items. The FEIS should clearly define what these items are and why they are inert. In addition, the FEIS needs to include an analysis of the impacts of these inert and non-inert items to threatened and endangered species.

The DEIS notes that in many cases that expended material including: batteries, control wires, sonobuoys, training targets, and countermeasures will be left in place. The continuous accumulation of debris from the proposed operations, especially those containing non-inert materials, could adversely affect the marine habitat, near shore, and shoreline. The FEIS recommends all Alternatives contain measures for the retrieval of equipment and debris that may result from the proposed action. In addition, an analysis of uncollected debris release of toxics into the water that may adversely affect marine species should be assessed.

The FEIS should evaluate the potential of debris from the proposed action to wash ashore onto public beaches. Should debris from the proposed operations wash ashore; the Navy should have a contingency plan in place to retrieve the debris, especially if the debris has the potential of being hazardous to humans or toxic to animal or plant life.

The proposed use of high and mid-frequency sonar is discussed in detail in the 2.2 Navy Sonar Systems and Acoustic Effects of Underwater Sounds to Fish sections of the DEIS Volume I. However, the expected physiological effects from high and mid-frequency sonar on the hearing and orientation of marine mammals (sea otters) and diving birds (marbled murrelet) seems to be absent in sections 3.9 Marine Mammals and 3.10 Birds, page 3.10-20. The FEIS needs to include a species-specific description (qualitative and/or quantitative) of the expected consequences associated with the use high and mid-frequency sonar to sea otter and marbled murrelet.

#### Birds, Aircraft Overflights,

The potential effects to nesting northern spotted owls and marbled murrelets, for low-level flights over the Darrington and Olympic MOA's along with any habitat effects to designated critical habitat for northern spotted owls and marbled murrelets, have not been assessed in this document. Overflights in the OPAREA may disturb nesting northern spotted owls or marbled murrelets due to the proposed 300-foot floor over potential

nesting habitat for these species. The FEIS needs to include an analysis of the effects to these species and conservation measures including, but not limited to operational floors, and timing windows.

Overflights in the OPAREA may also disturb Canada lynx (*Lynx canadensis*) during the denning period from the proposed 300-foot floor over potential denning habitat on the Wenatchee-Okanogan National Forest. An analysis of impacts to Canada lynx needs to be included in the FEIS.

The beach landings proposed to occur in the surf zone of W-237A are located within 5 miles of beaches known to be used by the threatened snowy plovers (*Charadrius alexandrinus nivosus*) for breeding and nesting. The DEIS does not include an analysis of the suitability of the beaches in W-237A for snowy plovers, the Department recommends that snowy plover breeding or habitat suitability surveys be conducted on the proposed beaches to evaluate the risk of exposure of the Navy's activities to this threatened species and that this information be included in the FEIS.

#### **Birds, Aircraft Collisions**

Under the Migratory Bird Treaty Act all migratory birds are to be conserved. An analysis of the effects of the flight activities on migratory birds due to direct impacts can be conducted using the Bird Avoidance Model created by the U.S. Air Force and/or the Federal Aviation Administration (FAA) wildlife strike database. Additional literature specific to Washington State that may be useful is *Quantifying Risk Associated with Potential Bird-Aircraft Collisions* Laurence M. Schafer et al. (2007).

The potential for bird strikes from collisions with aircraft need to be assessed in an individual and collective manner to adequately evaluate the risk for bird strikes. The FEIS should include a spatial analysis of the air space in the context of the number, duration, timing, and frequency of aircraft use in order to describe the likelihood of bird strikes for avian species in the Action Area. The FEIS should also include any measures that are proposed to minimize air strikes.

THE DEIS states "*Navy activities in the NWTRC would not be expected to increase effects to bird populations. The sheer size of the Range Complex, as well as the temporal and spatial variability of activities, in combination with temporal and seasonal distributions of seabird species poses minimal effect potential to seabird populations. Therefore no significant impact and no significant harm to birds would occur.*" It appears that the conclusion of this argument is based upon the premise that biological significance is measured by the low probability that Navy training activities will co-occur with seasonal avian habitat use at sea. However, no evidence is offered to support this premise. The FEIS needs to include biological evidence to support this conclusion or revise the conclusion accordingly. Additional supporting data are necessary because the reader can readily infer that an increase in activities (number, frequency, geographical extent, type or intensity, and/or duration) would reasonably increase the potential for bird strikes in the air. Therefore, information and/or relevant analysis would be necessary to reach a different conclusion.

#### **Underwater Detonations**

The DEIS states "*Sounds of this type are produced by the kinetic energy transfer of the object with the target surface, and are highly localized to the area of disturbance. Sound associated with the impact event is typically of low frequency (less than 250 Hz) and of a short enough duration (i.e., impulse sound) that it produces negligible amounts of acoustic energy.*" While this may be true for a single object impacting a target or the ocean surface, there is mention of multiple projectiles of size (such as missiles, torpedoes, or other ordnance) that may be launched concurrently or in rapid succession. These impacts create cumulative sound effects, pressure waves, and SEL impulses in the water column. If multiple launch activities are planned, the impacts of multiple projectiles impacting on the ocean surface in succession should be addressed. The cumulative sound and/or pressure waves created by these activities may affect threatened and endangered species.

#### **Bull Trout**

The Navy explosive ordnance disposal (EOD) training includes detonations of 2.5 lbs charges of explosives or greater to disable inert mines. The primary adverse effect from underwater detonations is the generation of a pressure wave that can kill or physically injure bull trout. Two and a half pound charges are sufficient to immediately kill fish or injure individual bull trout such that they die later in time. The potential for sublethal effects should also be addressed in the FEIS because they can diminish bull trout fitness to such an extent that their capability to grow, mature, migrate, and reproduce is diminished.

Detonations associated with EOD Training may result in mortality of forage fish important for anadromous bull trout. Mass mortality of herring and surf smelt has been documented (Teleki and Chamberlain 1978, Thomas and Washington 1998). Sand lance, another bull trout forage fish species that is common in Crescent Harbor and Puget Sound, has not been observed during post-detonation surveys by the Navy (Fish and Wildlife Service (FWS) Biological Opinion 2009). The absence of sand lance among those species recovered in mortality surveys is likely due to the absence of a swim bladder. Species with a swim bladder are more likely to float following mortality, so sand lance killed from an underwater detonation will likely not be detected during surface surveys they typically sink after dying.

Therefore, we recommend the FEIS assess their loss in proportion to their abundance with the mortality zone of a 2.5 lb. charge and then determine whether any population-level effect would be expected (and support your conclusion with verifiable information. If varieties of larger charges (underwater detonations) are possible with any alternative, the Navy should perform a quantitative and qualitative evaluation of the effects as a function of charge size to estimate the number of individual bull trout killed or injured and whether the number killed or injured would have a measurable affect on the Coast Puget Sound bull trout population. Larger underwater detonations would be expected to

have a higher likelihood of having population-level effects on bull trout or their prey resources.

The list of effects presented in the DEIS includes the risk of physical injury or mortality and the disruption of normal bull trout behavior associated with breeding, feeding, and sheltering. These effects, along with the conservation measures associated with each Alternative, do not support a “may affect, not likely to adversely affect” determination for these ESA-listed species. Unless additional information and/or analysis is presented, formal consultation with the FWS will be required pursuant to 50 CFR Part 402 §402.14.

#### **Marbled Murrelet**

The proposed underwater detonations of the EOD Training, even at the minimum charge size of 2.5 lbs, create rapid and high magnitude changes in Sound Exposure Levels (SELs) through the water that are expected to have lethal, sublethal, and behavioral consequences that may diminish the capability of murrelets to live, grow, mature, migrate, and reproduce (reduced murrelet fitness). Maintaining the fitness or the growth, survival, annual reproductive success, and lifetime reproductive success of individuals is a necessary attribute of viable populations.

Detonations that occur above water, even at a minimum charge size of 2.5 lbs are expected to have sublethal, and behavioral consequences that may diminish the capability of murrelets to forage and reproduce, reducing fitness a necessary attribute of viable populations.

The Navy proposes pre-detonation surveys to minimize marbled murrelet exposure to excessive SEL levels. While surveys may reduce potential exposure to lethal SELs, it is not eliminated by these surveys because murrelets may avoid detection by survey crews.

Therefore, the FWS recommends the Navy perform a quantitative and/or qualitative evaluation of the effects for each stressor (from each activity) associated underwater detonations when the activities co-occur in space and time with murrelets and include that information in the FEIS.

#### **SPECIFIC COMMENTS**

**2.6.1 Revised Level of Activities, Page 2-28** “no more than two underwater detonations per year will take place at Crescent Harbor, and no more than one detonation per year at Indian Island and Floral Point for a maximum of 4 detonations per year.”

The DEIS states that underwater detonations will occur at 60 per year declining to four over time. The timeframes of the proposed decrease in detonation should be included in the FEIS.

**ES 1.5.10 Birds, Page ES-26** “may affect individuals however, these activities would not have community or population level effects”

The DEIS does not contain any data that supports the conclusion that the Navy’s activities will not have community or population level effects must be supported by evidence. In the case of the marbled murrelet, biological evidence collected from a variety of sources indicates the species’ fecundity is not sufficient to maintain current population levels. Thus, a negative change (loss) of one, breeding-aged female may have an effect at the population level if one considers the loss of the lifetime reproductive potential of one female. Notwithstanding, other direct and indirect effects could be sufficient to result in sublethal injuries that lower individual fitness or affect the species distribution such that population level effects are measurable. The FEIS needs to include biological evidence to support this conclusion or revise the conclusion accordingly

**Page ES-26** “Proposed No Action Alternative, Alternative 1, or Alternative 2 (Preferred Alternative) NWTRC activities would not destroy or adversely modify critical habitat for the marbled murrelet or the western snowy plover. Activities associated with any of the alternatives will have no significant adverse effect to these birds.”

The potential for adverse effects to marbled murrelet critical habitat is possible from the propwash of helicopters if hovering within 300-feet of the ground occurs. Forest stands designated as critical habitat can reach heights of 200 feet, so the wind speeds from propwash may be sufficient to modify the existing stand by breaking limbs. If fixed wing aircraft are also used at altitudes down to 300-feet, then, depending on location, aircraft sound would also be expected to disrupt nesting birds (incubation or rearing) during the nesting season. Based on the above information the FEIS should reevaluate impacts to marbled murrelets.

The FEIS should evaluate the potential of debris from the proposed action to wash ashore onto public beaches; specifically those that are suitable habitat for the snowy plover. Should debris from the proposed operations wash ashore; the Navy should have a contingency plan in place to retrieve the debris, especially if the debris has the potential of being toxic to snowy plover.

**Summary of Effects – Fish and Essential Fish Habitat, Page ES-23 Table ES-9** “Explosive ordnance use may result in injury or mortality to individual fish but would not result in impacts to fish populations. Baseline environmental conditions of critical habitat would remain the same.”

Bull trout in the near-shore Olympic coastal marine environment have not been addressed in this document. Bull trout are known to migrate from many of the rivers and streams as far north as the Olympic National Park to Gray’s Harbor. Potential effects to bull trout in relation to operations within the near shore, specifically W-237A and W-237B needs to be assessed in the FEIS.

**Inshore Area ES 1.5.4.2 Page ES-17.** “None of the Proposed Action Alternatives would have long-term or significant impacts on marine or fresh water resources in the Study Area.”

There is not enough information in the DEIS to support this conclusion. The use of high explosives, low overflights, beach landings, operation within the nearshore areas,

disruption of migratory corridors, disruption or dispersing fish and wildlife during foraging periods, degradation of habitat, injury or death of forage species, and potential for direct injury can all have long-term significant impacts on marine and fresh water resources. A more detailed analysis of long-term impacts needs to be included in the FEIS.

**Section ES 1.3.2 Coastal Zone Page ES-7** “For the majority of resource sections addressed in this EIS/OEIS, projected impacts outside of U.S. territorial waters would be similar to those within territorial waters. The 12 nm (22 km) distinction is simply a jurisdictional boundary and is not delineated for purposes of scheduling or management of military training activities. In addition, the baseline environment and associated impacts to the various resource areas analyzed in this EIS/OEIS are not substantially different within or outside the 12 nm (22 km) jurisdictional boundary.”

The baseline biological environment within 12 nm is substantially different from that beyond. Areas within 12 nm, specifically areas of the continental shelf, provide a physical environment rich in structure and biomass for feeding, breeding, sheltering, and migratory habitat for several species protected under the Endangered Species Act, Migratory Bird Treaty Act, and Marine Mammal Protection Act. The Department believes that the resources in the two zones are substantially different. Consequently the Department recommends that separate analyses be performed for the two zones in the FEIS.

#### **ES 1.5.1.1 Offshore Area, Page ES-13**

An analysis of the offshore geology, specifically the continental shelf out to five miles, may be prudent as this area supports a high density of wildlife including threatened and endangered species that may utilize certain geologic formations (crests, peaks, valleys, trenches, etc..) for certain aspects of feeding, breeding, sheltering, and migratory routes. This analysis should be included in the FEIS.

**ES 1.5.6 Marine Plants and Invertebrates, ES 1.5.6.2 Inshore Area, Explosions, Page ES-21 and 3.6-8** – “Because eelgrass and kelp beds do not occur within the underwater detonation training areas, Alternatives 1 and 2 would not result in any adverse effects on these plants and the communities they support.”

This statement is inaccurate. Surveys performed by the Washington Department of Fish and Wildlife in 2006 encountered eelgrass in patchy concentrations at or near all of the named detonation sites (EOD Crescent Harbor, EOD Floral Point, and EOD Indian Island). When assessing these actions it is prudent to remember that the entire action area (area of effect) needs to be assessed, not just the project area. Based on the 2006 Washington Department of Fish and Wildlife Survey, impacts to eelgrass beds need to be reevaluated. This reevaluation of impacts and any appropriate mitigation measures should be included in the FEIS.

**2.6.2.5 Small Scale Underwater Training Minefield, Page 2-1 and 2-31** “These mine-like shapes will be placed within an area approximately 2 nm by 2 nm. Although the

location for this minefield has not yet been determined, it would not be installed within the boundaries of the Olympic Coast National Marine Sanctuary”

Pursuant to the Fish and Wildlife Coordination Act (FWCA) of 1934 as amended, any modifications of a body of water for any purpose needs to be assessed for effects to marine life, including but not limited to threatened and endangered species. An explanation of how these dummy mines are anchored to bottom and the Navy’s planned activities associated with the minefield should be provided in the FEIS. Specifically, any potential effects from the submarine avoidance exercises to threatened and endangered wildlife that may use the area for feeding, breeding, or as migratory corridor needs to be assessed. A list of the timing windows utilized for the proposed seven (7) submarine avoidance exercises to minimize exposure to threatened and endangered species to sonar and other disturbances should be included in the FEIS.

**Underwater Detonations, ES 1.5.4.2, ES 1.5.6.2 Inshore Area 2.4.1.5 Mine Warfare (MIW) Training, Table 2-9: Current and Proposed Annual Level of Activities and other locations in DEIS – Explosive Ordnance Disposal (EOD) Ranges:** “This move is planned to be completed in the fall of 2009. Two EOD Shore Detachments (Bangor and Northwest) will remain in the NWTRC. These Shore Detachments report to Commander, Navy Region Northwest and respond to regional Navy taskings and incidents. As a result of the EODMU Eleven relocation, mine warfare underwater detonation training will significantly decrease from a yearly maximum of 60 underwater detonation as analyzed in the No Action Alternative (the baseline) to no more than four annual underwater detonations as analyzed in Alternatives 1 and 2. The maximum charge size for these four explosions will be 2.5 pounds. Adverse impacts would not be measurable because of low level of activity, the benign nature of the majority of explosion byproducts, and standard site investigation and clean up procedures.”

It appears that the meaning of this paragraph is that there will be 60 underwater detonations as of this moment in time, and after the Explosive Ordnance Disposal Mobile Unit Eleven is relocated, the underwater detonations will decrease to four. The schedule for the move of Explosive Ordnance Disposal Mobile Unit Eleven should be included in the description. A full schedule of when reductions of underwater detonations decrease from 60 to four (days, weeks, months, years) needs to be included in the description. The effects on ESA-listed species and non-listed species for the number of detonations, seasonality of detonations, and size of detonation all need to be addressed as part of the action, up until and including the time that detonations have decreased permanently to four or less. This should be included in the FEIS.

#### **3.6.1.3 Nearshore Habitats Benthic Algae, Kelp and Eelgrass**

**Page 3.6-6** “Kelp and seagrass beds provide important habitat for many species... all activities under the Proposed Action would occur at least three nm offshore beyond the zone for such habitat.”

This statement is inconsistent with the described operations and interrelated operations in the DEIS. The proposed operations in W-237A have a high potential to physically

impact kelp bed areas. In addition, the placement of the Small Scale Underwater Training Minefield as described could be located in such an area causing a high level of perturbation to natural functioning and quality of the area. This discrepancy needs to be clarified and the impacts reevaluated in the FEIS.

**Pages 3.6-18, 3.6-21, 3.6-23** *“Potential nearshore habitats of concern include eelgrass and kelp beds, but these habitats do not occur within the MCT areas and none would be affected. Therefore, the analysis of impacts to such habitats is not considered further.”*

This statement is inaccurate. Surveys performed by the Washington Department of Fish and Wildlife in 2006 clearly show that eelgrass bed occur at minimum in patchy concentrations at or near all of the named detonation sites (EOD Crescent Harbor, EOD Floral Point, and EOD Indian Island). When assessing these actions it is prudent to remember that the entire action area (area of effect) needs to be assessed, not just the project area. Additionally, effects to species dependant on these areas of eelgrass also need to be assessed, as eelgrass provide spawning habitat for many forage fish which are one of the Primary Constituent Elements (PCE) of bull trout critical habitat. Based on the 2006 Washington Department of Fish and Wildlife Survey, impacts to eelgrass beds need to be reevaluated. This reevaluation of impacts and any appropriate mitigation measures should be included in the FEIS.

#### **Acoustic Effects of Underwater Sounds to Fish, Explosive Sources, Page 3.7-28**

Analysis of effects to threatened and endangered species requires the use of the best available science under the Endangered Species Act. The information provided in this section is lacking other important literature. A further literature search using information that is more recent is needed.

Additional sources: Yelverton, J.T. 1981.; Steevens et al. 1999; Fothergill et al. 2001; Cudahy and Ellison 2002; U.S. Department of Defense 2002; Popper 2003; Turnpenny and Nedwell 1994; Turnpenny et al. 1994; Entranco and Hamer Environmental 2005 Ross et al. 2001; Nedwell and Edwards 2002, Nedwell et al, 2003; Richardson et al. 1995; Teleki and Chamberlain 1978; Thomas and Washington 1988; National Marine Fisheries Service Biological opinion 2008, NMFS tracking number 2001.00063; USDC. 2008, Biological opinion NMFS tracking number 2001.00063; U.S. Fish and Wildlife Opinion 2009, FWS tracking number 13410-2009-F-0020.

This additional information should be used to reanalyze impacts to threatened and endangered species and this analysis included in the FEIS.

**Acoustic Effects of Underwater Sounds to Fish, Explosive Sources, Sonar, Low-Frequency Sonar, Pages 3.7-35,36** – *“Although some behavioral modification might occur (i.e., startle, avoidance, etc.), adverse effects from low-frequency sonar on fish, including sensitive life stages (juvenile fish, larvae and eggs) are not expected. If they occur, behavioral responses would be brief, reversible, and not biologically significant. The use of Navy low-frequency sonar would not compromise the productivity of fish or adversely affect their habitat.”*

In several other locations within this document, it states that low-frequency sonar will not be used. The discrepancy regarding the use of low-frequency sonar should be clarified and a full analysis of effects to marine species should be performed, including effects to listed threatened and endangered species and included in the FEIS.

#### **MARINE MAMMALS Page 3.9-113**

*“Underwater detonation... exposure effects to the sea otter and North Pacific right whale were not modeled because density data were unavailable for these species.”*

*“Level B sonar exposure... effects to the sea otter and North Pacific right whale were not modeled because density data were unavailable for these species.”*

The FEIS should include an analysis of the potential effects of underwater detonation and Level B sonar exposure to sea otters using information sources on surrogate species. With care, other information sources can be extrapolated or at least discussed in the context of a species of interest. Additionally, the Department recommends that the FEIS contain a marine animal (mammals, diving birds, and fish) monitoring program that would assess the effects of sonar on marine life to verify whether the activity would or would not have adverse effects.

#### **MARINE MAMMALS 3.9**

There is no discussion of the potential of entanglement for sea otters or other marine mammals in a torpedo guide wire. The FEIS should include an analysis of this possibility and appropriate mitigation measures.

#### **BIRDS, Entanglement, Page 3.10-28**

There is no discussion of the potential of entanglement for marbled murrelet or other sea birds in a torpedo guide wire; provide an analysis of this possibility or justification why it is unnecessary. The FEIS should include an analysis of this possibility and appropriate mitigation measures.

**BIRDS, 3.10.3 Environmental Consequences, Page 3.10-20.** *“An assessment was not conducted on the effects of sonar on birds. A study documented by NMFS (2003) concluded that effects to birds from sonar were unlikely. Although some species may be able to hear sonar, several factors were identified in that section that would make effects improbable. Those factors, plus the low level of sonar use within the NWTRC (approximately 100 hours each year during training and vessels transit) would result in a low likelihood of seabird exposure. Therefore, sonar use is not addressed further.”*

The location, timing, and type of sonar proposed, as well as the clear identification of the target species, are all more critical factors in determining exposure risk than the duration of sonar use. As a result, the FEIS needs to include a species-specific exposure analysis

of sonar use, given the documented lethal and sublethal consequences on marine mammals associated with sonar use. If exposure is expected for some avian species, the Department recommends that the Navy conduct scientific studies to evaluate the effect of active sonar on diving marine bird such as marbled murrelet. There is concern that active sonar may result in sublethal behavioral changes to animals occurring in the sonar use area. For example, sonar use could cause murrelets to avoid important foraging areas leading to reduced foraging success. If the availability of prey are limiting to the species, such avoidance could further suppress survivorship of murrelet chicks and/or adults. This additional analysis should be included in the FEIS.

**TERRESTRIAL BIOLOGICAL RESOURCES, Aircraft Overflights, Page 3.11-14**

Lynx are solitary mammals that prefer covered areas and are susceptible to noise disturbances. Effects to lynx have not been assessed in the document for low-level flights over the Darrington MOA and should be included in the FEIS.

**DEIS Vol. II 4.2.7 Fish, Page 4-18** *“Due to the wide geographic separation of most of the activities, Navy activities would have small or negligible potential impact, and their potential impacts are not additive or synergistic. Relatively small number of fish would be killed by shock waves from mines, inert bombs, and intact missiles and targets hitting the water surface.” “Underwater explosives may result in disturbance, injury, or mortality to ESA-listed salmonid species. However, under the Proposed Action, the total number of underwater detonations would decrease from 60 events to 4 events annually.”*

It appears that the reasoning presented in the DEIS attempts to downplay the significance of the effects of the Navy’s proposed operations, which as described, constitute the “take” of ESA listed resources. Further, this stated “negligible” impact is offered in the absence of analytical support. As a result, the FEIS should include a description of activities that, along with the proposed timing, location, duration, intensity, and/or frequency, that could lead to the “harm” and “harassment” of listed resources. This information would provide the FWS the opportunity to assess the scope and scale of the response of listed species and/or affects to designated critical habitat.

**DEIS Vol. II, 4.2.10 Birds, 4-28 to 4-31** *“Listed sea bird species in the NWTRC include the Short-tailed Albatross, the Marbled Murrelet, the California Brown Pelican, and the Western Snowy Plover. In accordance with ESA, under the Proposed Action, vessel movements, aircraft overflights, ordnance use, underwater explosions and detonations, and entanglement may affect but are not likely to adversely affect the listed sea bird species population, overall foraging success, or breeding opportunities. The cumulative impact of the Proposed Action and the identified projects activities in Section 4.1.2 and 4.1.3 could impact individual seabirds, their overall foraging success, and breeding opportunity, but these effects are not likely to adversely affect any seabird population. Therefore, there would be no cumulative effects related to seabirds as a result of implementation of the Proposed Action in conjunction with past, present, or planned projects in the Study Area.”*

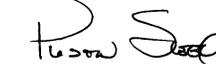
The DEIS identifies effects that may occur to ESA-listed seabirds associated with several activities proposed in all the Alternatives, most notably the proposed use of underwater explosives and detonations, ordnance use, aircraft overflights (down to as low as 300 feet above the ground), and extensive vessel movements throughout the NRTC. The list of effects presented in the DEIS includes the risk of physical injury or mortality and the disruption of normal seabird behavior associated with breeding, feeding, and sheltering. The FWS agrees with these findings. However, these effects, along with the conservation measures associated with each Alternative, do not support a “may affect, not likely to adversely affect” determination for these ESA-listed species. Unless additional information and/or analysis is presented, formal consultation with the FWS will be required pursuant to 50 CFR Part 402 §402.14.

The FWS is aware of many species of seabirds known to use coastal and open water marine environments within the proposed *Northwest Training Range Complex* and these migratory species, while not protected under the ESA, should be considered for effects pursuant to the Migratory Bird Treaty Act. Noise pulses have been found to cause general avoidance reaction, changes in behavior (e.g., dive cycles, respiration), and displacement from foraging areas.

One species, the Short-tailed Albatross (*Phoebastria albatrus*), is a listed species that does occur and the training performed in the open water areas of the PACNW OPAEA. The potential for aircraft strikes and lethal and sublethal injury from sonar, detonations, and entanglement should be evaluated and the analysis and appropriate mitigation measures should be included in the FEIS.

We appreciate the opportunity to review and comment on this DEIS. Consultation and technical assistance requests, questions, comments, documents, and required progress reports should be directed to the Fish and Wildlife Service's Kevin Shelley; telephone: (360) 753-4325; or via e-mail: Kevin\_Shelley@fws.gov. If you have any other questions, please contact me at (503) 326-2489.

Sincerely



Preston A. Sleeper  
Regional Environmental Officer

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March 9, 2009  
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Response to the North West Training Range Complex Environmental Impact Statement

I first knew about The NW Naval Training Program in my local newspaper the Mendocino Beacon on Thursday February 26<sup>th</sup>. Several times that week I tried to read the EIS on the announced website but it did not provide my computer with the information. This in itself should be enough to cancel the process or at least extend the time frame and fix the website so any computer can pull up the EIS. In the Whitbey News (online) I found that Clinton Washington resident John Hurd said he could not get access until the first week of February what with the deadline at that point February 12<sup>th</sup>. Hurd contacted Navy officials about the issue and they finally put him in touch with a computer engineer for a government contractor that runs the Web site. The contractor finally fixed the problem Thursday, less that a week before that deadline of February 12<sup>th</sup>.

The EIS was not available to me on my computer the week before the March 11<sup>th</sup> deadline, and I only heard about this proposal in my daily newspaper the last week of February? Why have we in Northern California not heard about this proposal – initiated in December 2008? How can you expect us to comment when the EIS is not available. The nearest hard copy is in the Humboldt library – 4 ½ hours away.

In researching the program as it already exists in Washington state I found that the you (the Navy) are being sued for exploding ordinance in the Puget Sound waters, allegedly killing thousands of fish and potentially harming federally protected species. The suit asks the court to issue an injunction against further training operations in Puget Sound or order significant protective measures to prevent harm to threatened species... and habitat until the Navy has brought training in compliance with federal regulations.... In one exercise involving a five-pound explosive charge set off near Naval Air Station Whidbey Island, observers counted 5,000 dead fish on the surface but estimated that up to another 20,000 fish died and sand out of sight to the seabed.”  
[www.pnwlocalnews.com/whidbey/swt/news](http://www.pnwlocalnews.com/whidbey/swt/news)

The Newport News Times reported that Brett Hearne fisherman since 1978 hauled in a 3 foot barnacle encrusted aluminum canister with serial and bar code numbers which would indicated it could be anything from a mortar casing to an aircraft cylinder to launch missiles. “We drag about 40 days of the year . And we haul in about 3 to 4 pieces like this per year.”  
[www.newportnewstimes.com](http://www.newportnewstimes.com) February 13, 2009. What toxic or potentially toxic compounds are known or can be reasonably expected to leak from these munitions or ordnance and why aren't the effects considered in the EIS You must indicate what compounds or chemicals are in anything that will be left in the ocean.

It is imperative that your operations are in compliance with Federal AND State regulations. Our air quality regulations and the Safe Drinking Water and Toxic Enforcement Act of 1986 must be met or you the Navy will be sued by us. Furthermore, how can we assess the impact of your program when you do not list all the chemicals which will be used. Will you be using depleted uranium, red and white phosphorus and weather modification chemicals? If any of these are used we need to see a complete study of these chemicals showing human health and animal health effects, also studies of cumulative and synergistic effects of chemicals on humans and animals (terrestrial and marine).

And since there is no end date to this program it would seem that once things are set into motion there is no end to it. This is preposterous. There should be a timetable, and end date subject to public review before reinstating the program if you wish to continue.

It is beyond folly to set up a minefield for training on the bottom of the ocean floor known to have earthquake faults.

It is beyond folly to harm citizens of the United States, contaminating our drinking water, threatening our food sources and polluting our air with the stated intention of protecting us or securing our safety.

It is beyond folly to contaminate the atmosphere with chemicals that accelerate global warming threatening the whole world's safety in the name of protecting America.

*Kate Dougherty*  
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**United States Navy**  
**Public Hearing Comment Form**  
 Northwest Training Range Complex  
 Environmental Impact Statement /  
 Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Depositing this form at the Comment Table before you leave tonight.
- 2) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 3) Mailing this form to:

Naval Facilities Engineering Command Northwest  
 1101 Tautog Circle, Suite 203  
 Silverdale, WA 98315-1101  
 ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: Carolyn Drewes

Organization/Affiliation: \_\_\_\_\_

Address: PO, 137

City, State, Zip Code: Redwood Valley, CA 95470

Comments: We oppose the Navy plan for the North coast.

While we realize that the navy must defend our country, we are concerned about the environmental + economic impacts - particularly regarding ocean ecosystems and fish.

Sonar testing has <sup>already</sup> been found to negatively impact the whales + dolphins & other turtles & birds

v.-sea animals. Toxic wastes from ships + bases + aircraft negatively impact coastal areas + wildlife. We have recreational + fishing industries that must be protected. In addition the

electrical EMFs & other <sup>emissions +</sup> impacts negatively effect life. EMFs have been shown to cause brain damage + cancer + other health effects.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

We are also concerned about invasion of privacy by surveillance activities.

\*Provide your mailing address to receive future notices about the Northwest Training Range Complex EIS/OEIS.

**United States Navy**  
**Public Hearing Comment Form**  
 Northwest Training Range Complex  
 Environmental Impact Statement /  
 Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Depositing this form at the Comment Table before you leave tonight.
- 2) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 3) Mailing this form to:

Naval Facilities Engineering Command Northwest  
 1101 Tautog Circle, Suite 203  
 Silverdale, WA 98315-1101  
 ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: Heinz Dullinger

Organization/Affiliation: Resident

Address: PO Box 94

City, State, Zip Code: Redwood Valley

Comments: No need to warfare

No Bombs dropped on the Ocean

No Public support for Sonar testing. Just like in Hawaii the people will stop expanding the Navy test site.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

\*Provide your mailing address to receive future notices about the Northwest Training Range Complex EIS/OEIS.

United States Navy  
Public Hearing Comment Form

Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



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APRIL 13

All comments must be received no later than ~~Monday~~ Monday, April 13, 2009, to be considered in the Final EIS/OEIS.

Name: Cecelia Dzurella

Organization/Affiliation: \_\_\_\_\_ PAGE 1

Address: PO BOX 481

City, State, Zip Code: ALBION, CA 95410

Comments: RELATIVE TO MARINE MAMMAL TAKE:

A. FOR THE FOLLOWING REASONS:

1. THE DATA AVAILABLE TO PRODUCE THE RISK FUNCTION FOR EXPOSURE OF MARINE MAMMALS TO MIDFREQUENCY SONAR WERE SO SLIM (AS STATED IN THE EIS), AND, AS FURTHER STATED IN THE EIS, REVIEWERS STRONGLY DIFFERED IN THE MATHEMATICAL AND SCIENTIFIC APPROACH TO SUCH DATA AS EXISTS AS APPLIES TO WHALES, AND

2. OUTPUTS GENERATED BY THE RISK FORMATION CAN BE MADE MORE REALISTIC IN THE FUTURE (AS STATED IN THE EIS) (con. page 2)

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

United States Navy  
Public Hearing Comment Form

Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



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APRIL 13

All comments must be received no later than ~~Monday~~ Monday, April 13, 2009, to be considered in the Final EIS/OEIS.

Name: Cecelia Dzurella (con. page 2)

Organization/Affiliation: \_\_\_\_\_

Address: PO BOX 481

City, State, Zip Code: ALBION, CA 95410

Comments: (con. from page 1)

therefore, it would reduce take now for the Navy to AVOID areas where whales are apt to congregate for feeding, migration, etc. AND,

B. The Navy, with the cooperation of scientific & educational institutions, needs NDW to find far better methods to detect marine mammals than by watchstanders alone, no matter how well trained.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10

1200 Sixth Avenue, Suite 900  
Seattle, WA 98101-3140

OFFICE OF  
ECOSYSTEMS, TRIBAL AND  
PUBLIC AFFAIRS

March 11, 2009

Ms. Kimberly Kler  
EIS/OEIS Project Manager  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101

**RE: U.S. Environmental Protection Agency (EPA) review and comments for the U.S. Navy's (Navy) Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement/ Overseas Environmental Impact Statement (EIS/OEIS).  
EPA Project Number: 07-035-DOD**

Dear Ms. Kler:

This review was conducted in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. Under our policies and procedures, we evaluate the environmental impact of the proposed action and the adequacy of the impact statement. We have assigned an EC-2 (Environmental Concerns, Insufficient Information) rating to the Draft EIS/OEIS. A copy of the EPA rating system is enclosed.

EPA understands the need to conduct realistic training and appreciates the Navy's generally excellent environmental analysis. We remain concerned, however, about potential impacts from Mid-Frequency Active (MFA) sonar and training activities in the Olympic Coast National Marine Sanctuary (OCNMS).

To address our EC-2 rating and more fully protect the environment we recommend additional mitigation measures for Alternative 2 (40 CFR § 1502.14). Additional mitigation measures that we especially support include the incorporation of emerging technologies into marine mammal monitoring and mitigation measures and special restrictions for the OCNMS. The above and other concerns and recommendations are detailed in the enclosure.

Thank you for this opportunity to comment on the Proposed Action and if you have any questions please contact Erik Peterson of my staff at (206) 553-6382.

Sincerely,

Christine B. Reichgott, Manager  
Environmental Review and Sediment  
Management Unit

Printed on Recycled Paper

Printed on Recycled Paper

Enclosures:  
EPA Region 10 Detailed Comments NWTRC Draft EIS/OEIS  
EPA Rating System for Draft EISs

**EPA REGION 10 DETAILED COMMENTS  
NWTRC DRAFT EIS/OEIS**

**Marine Mammals**

***Scientific Support for MFA Sonar Shut Down Zones***

We are concerned that the Chapter 5 sub-section on “Alternatives Mitigation Measures Considered but Eliminated; Using larger shut-down zones” does not list the scientific support for the elimination of larger shut-down zones as a mitigation measure (See p. 5-26). We believe this sub-section over-emphasizes the limitations of lookouts for marine mammal monitoring and under-emphasizes the scientific support for the effectiveness of shut-down zones in precluding direct physiological effects from exposure to MFS sonar.

*Recommendation:*

We recommend that the Final EIS/OEIS’s version of Chapter 5 include specific references to the scientific support for current MFA sonar power down and shut down zones.

***Emerging Technologies and Monitoring and Mitigation Measures for Marine Mammals***

One need for the Proposed Action is to support the acquisition and implementation of advanced military technology into the Fleet. We understand that many of these new technologies are not developed to the point where they can be utilized as mitigation or monitoring tools for marine mammals. However, EPA believes emerging tools and techniques with the capability to contribute to marine mammal monitoring (e.g. Broad Area Maritime Surveillance (BAMS) UAS.) may lead to advances in the effectiveness of mitigation measures.

*Recommendation:*

EPA recommends that the Final EIS/OEIS include a description of how new and emerging tools and techniques might be incorporated into marine mammal monitoring and mitigation measures on the NWTRC.

**Olympic Coast National Marine Sanctuary (OCNMS)**

We are concerned that there are no special restrictions for the OCNMS. EPA believes that the OCNMS is an exceptional biological resource and special restrictions, if not regulated by law or policy but possible at little to no cost, are an appropriate aspect of good environmental stewardship.

*Recommendation:*

We recommend that the Final EIS/OEIS consider additional reasonable special restrictions protective of the OCNMS. For example, we believe adding a “No discharge” restriction for all waste types listed in Table 3.4-1 for some or all of the OCNMS would have water quality benefits.

**Greenhouse Gas Emissions Analysis and Voluntary Reduction and Mitigation Measures**

We believe that the EIS would be strengthened by including an annual greenhouse gas (GHG) emissions analysis and consideration of voluntary GHG reduction and/or offset measures. We believe that a GHG emissions analysis and the consideration of voluntary offset and/or

reduction measures is consistent with the Navy’s stated need to “Maintain the long-term viability of the NWTRCT as a premiere navy training and testing area while protecting human health and the environment, and enhancing the quality, capabilities, and safety of the Range Complex”(p. ES-5). EPA supports GHG analyses to increase preparedness for and decrease potential costs associated with meeting local, county, state, regional, national, and international responses to climate change.<sup>1</sup>

*Recommendations:*

We recommend that the Final EIS/OEIS quantify the annual GHG emissions that would occur as a result of training activities in the NWTRC. This estimate could be based on the same activities that are used to quantify the criteria pollutants in Appendix C of the Draft EIS/OEIS with one difference. Instead of limiting aircraft emissions to those occurring below 3,000 feet we recommend that the GHG analysis include all aircraft emissions.

For any GHG analysis which may be included in the Final EIS/OEIS we suggest utilizing an equivalencies calculator to translate emissions into terms that are easier to conceptualize. If the equivalency to passenger vehicles is deemed appropriate we suggest using EPA MOBILE6.2 fuel economy numbers (<http://www.epa.gov/OMS/climate/420f05004.htm>).

In the absence of regulatory standards for GHG emissions we suggest that the Final EIS/OEIS consider voluntary reduction and offset measures. We support these measures in the interests of energy conservation and good environmental stewardship. Potential voluntary measures (some of which the Navy is already utilizing) include, but are not limited to:

- “cold-ironing”, including the use of modular and mobile energy sources;<sup>2</sup>
- alternative fuels in ships, airplanes, ground fleets and facilities;
- inclusion of operating criteria which maximize fuel efficiency when mission appropriate;
- business management practices which reduce personnel travel distance to and from their homes and duty stations;
- reduced travel to and from training locations within or outside of the NWTRC;
- commit all Naval Stations (NAS) to the Federal Green Challenge (<http://yosemite.epa.gov/r10/ECOCOMM.NSF/Federal+Green+Challenge/FedGreen>);
- maximum use of computer simulated training.

**The Environmental Risk of Tungsten Gunshells**

<sup>1</sup> Consider, for instance, Local Governments for Sustainability, King County Climate Plan, Northwest Regional Greenhouse Gas Initiative, Western Climate Initiative, the Energy Independence and Security Act of 2007 and the Bali Action Plan.

<sup>2</sup> See, for example, <http://www.cleanairmarinepower.com/>

We are concerned about the lack of environmental risk analysis for tungsten Close-In-Weapon System (CIWS) rounds. Tungsten is an "emerging contaminant" the environmental risk of which is relatively unknown.<sup>3</sup>

*Recommendation:*

We recommend that the Final EIS/OEIS discuss the environmental risk of CIWS tungsten rounds in the NWTRC. The CIWS analysis should address materials composition (e.g. cobalt, nylon, iron, nickel, bronze, tin and/or lead), the solubility of these materials in salt water and their potential toxicity for marine life.

<sup>3</sup> <http://www.epa.gov/tio/download/contaminantfocus/epa542f07005.pdf>

**U.S. Environmental Protection Agency Rating System for  
Draft Environmental Impact Statements  
Definitions and Follow-Up Action\***

**Environmental Impact of the Action**

**LO – Lack of Objections**

The U.S. Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

**EC – Environmental Concerns**

EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

**EO – Environmental Objections**

EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

**EU – Environmentally Unsatisfactory**

EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

**Adequacy of the Impact Statement**

**Category 1 – Adequate**

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

**Category 2 – Insufficient Information**

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

**Category 3 – Inadequate**

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

\* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987



## ENVIRONMENTAL VOICES

P. O. Box 1074, Davis, CA 95617 - (916) 595-7197  
[Environmentalvoices@yahoo.com](mailto:Environmentalvoices@yahoo.com)

April 10, 2009

Naval Facilities Engineering Command Northwest  
Attention: Mrs. Kimberly Kier - NWTRC  
1101 Tautog Circle, Suite 203  
Silverdale, Washington 98315

**Subject: U.S. Navy Environmental Impact Statement**

Dear Mrs. Kier:

Environmental Voices would like to express their comments regarding the U.S. Navy's current Environmental Impact Statement (EIS) to expand warfare testing in Northern California, Oregon, Washington and Idaho.

We feel that this program should not be approved for the following reasons:

The U.S. Navy is currently planning to expand their warfare testing programs to Northern California, Oregon, Washington and Idaho. They have not properly notified the public of the Environmental Impact Statement (EIS) that has a comment deadline of April 13, 2009. I have reviewed this EIS and believe the U.S. Navy has down played the health and environmental dangers of this program. This warfare testing, most likely, impact California's fishing industry and decrease our salmon and other marine life. Some of the hazardous materials listed include petroleum products, heavy metals and combustion products and we believe this list of hazardous materials is not complete. We need to know the list of toxic chemicals that would be used that could affect the public, animals, marine life, water supplies, trees, agriculture and soils. This includes information on whether or not depleted uranium, red and white phosphorus, weather modification and mitigation chemicals will be used, whether or not atmospheric testing will occur along with aviation over-flights and bombing runs.

We are also concerned about the "taking" of marine live, animals/wildlife. In addition, another concern we have is that the sonic booms and possible explosions in the ocean could trigger earth quakes in California. The draft EIS does not fully address the potential environmental impacts on multiple resources, like air quality, water resources, airborne acoustic environment (on land and in the ocean), biological resources, marine and terrestrial impacts and human health and safety. Environmental Voices has not had the necessary time to prepare a proper comment to this EIS.

Since the public has not been properly notified, Environmental Voices is requesting that public hearings be held at California State and UC Colleges (Especially those colleges and universities along the Coast of California) and in Sacramento, Los Angeles, Long Beach, San Diego and other cities throughout California. This type of public awareness program should also be conducted in Oregon, Washington, and Idaho. These public hearings should be advertised through the media (newspaper, television and radio) and allow the public enough time to prepare for the hearing. In addition, other environmental organizations should be notified and given adequate time to respond to the EIS.

We already have enough toxic chemicals in our air, water and soil that are destroying our environment and we feel that the U.S. Navy does not need to expand this program, as it is our understanding that there are similar programs already being conducted in Southern California and other locations around the world.

U. S. Navy – Mrs. Kimberly Kier

2

April 10, 2009

Please take our comments into consideration. If you need additional information or have any questions, please call me at (916) 595-7197. We would also like to be added to your e-mail/contact list for information about this and other programs that are affecting our environment.

Sincerely,

Deborah J. Whitman  
Founder/President

Enclosures

## Archived Story

Posted: Feb 13, 2009 - 10:12:36 PST



Skipper Brett Hearne fixes a net aboard the 75-foot F/V Last Straw on Wednesday afternoon. In the wake of the recent scuttlebutt surrounding the U.S. Navy's desire to escalate training activities off the Oregon coast, Hearne - a commercial fisherman since 1978 - contacted the News-Times about a piece of Navy ordnance his crew netted along with 42,000 pounds of fish during a recent sea sojourn. He also pondered the viability of commercial fisheries, which face growing competition for ocean territory from the Navy's training range, marine reserves, wave energy projects, and more. (Photos by Terry Dillman)

### Navy's tactics worry fishermen By Terry Dillman Of the News-Times

Brett Hearne has plied the ocean as a commercial fisherman since 1978, but he isn't sure how much longer he and fellow

fishers can hold out.

The skipper of the F/V Last Straw is worried about what he thinks could become the last straw for commercial fishing as competing uses - current and future - jostle for ocean territory. And he wonders whether the \$1 million he invested in his 75-foot trawler last year can reap needed dividends, given current economic conditions and the possible loss of fishing grounds to proposed marine reserves, wave energy projects, fish farms, and more.

The latest salvo from the U.S. Navy, which wants to escalate activities within its Northwest Training Range Complex (NWTRC) off the coasts of Washington, Oregon, and northern California dredged up those worries, and prompted Hearne to call the News-Times about a piece of naval detritus his crew hauled in during a recent sojourn at sea. They're not exactly sure what the three-foot-plus, barnacle-encrusted aluminum canister is, but speculation based on serial, bar code, and other numbers from it range from a mortar casing to an aircraft cylinder used to launch missiles.

"We drag about 40 days out of the year," Hearne said. "And we haul in about three to four pieces like this per year."

The Navy junk gets tangled in the trawl nets and it can, depending on shape and size, wreak havoc with nets and other equipment. Other Navy activities can have more dire consequences.

During a Jan. 30 public hearing the Navy conducted at Oregon State University's Hatfield Marine Science Center pertaining to a required Draft Environmental Impact Statement (DEIS) related to their proposed range activity expansion, Lincoln County Commissioner Terry Thompson (after noting he had logged more than 4,200 days at sea as a commercial fisherman) talked about the loss of at least eight fishing vessels and 15 crew members "due to submarine activities." A submarine caught in a trawl net is the only thing he said could explain a 75-foot vessel being dragged sideways at eight knots.

Economic impact was another concern.

Thompson noted the \$100-million economic boost commercial fishing provides "just in Lincoln County," and said the potential for anything - such as the small-scale practice minefield mentioned in the DEIS - that could keep fishermen out of prime fishing grounds was bothersome. He also cited the shells and other debris the Navy "leaves behind" after training exercises.

"Our fishing industry has done a lot to try to clean up the bottom of the ocean, and for the Navy to leave debris on the bottom is not good," he said.

Hearne and crewman Joe Mayer, who has 10 years in as a commercial fisherman but is experiencing his first ventures aboard a trawler, agreed. They also backed Thompson's contention that the Navy "doesn't have a very good understanding of the fishing industry." As an example, Thompson pointed to the DEIS section about the fishing industry that he said fails to make a major distinction between trollers and trawlers. He suggested they "get with some commercial fishermen" then rework that DEIS section.

Hearne considers that highly unlikely. In fact, he scoffed at the notion of having to send public comments about the DEIS directly to Navy personnel. To him, it was akin to using sea lions to guard a hold full of fish.

Hearne, Mayer, and many others remain concerned about the potential impacts to fisheries and marine life, despite the Navy's

prediction that - while the potential exists to economically impact commercial fishing from the increased use of sonar, a portable undersea tracking range, and underwater training minefield - the escalation of war games within the range would have "no socioeconomic effects" on commercial shipping and fishing interests, sport fishing and diving interests, or tourism activities.

The NWTRC provides land, air, and sea training for the nation's third largest concentration of Navy forces based in Washington's Puget Sound. It extends 250 nautical miles (about 288 miles) into the Pacific Ocean from the shoreline, encompassing more than 126,000 square nautical miles of ocean. It also covers more than 34,000 square miles of airspace, and 875 acres of land.

At the Jan. 30 hearing, newly appointed Port of Newport commissioner David Jincks, representing the Midwater Trawlers and Pacific Whiting cooperatives, referred to the "tremendous amount of fishing that goes on out here all the time." Because the changes Navy officials are considering "could have a very large impact, but we don't know yet how extensive it could be," he asked for "more coordination with the fishing industry" to get feedback from the fishermen "who actually use the ocean."

Hearne and others who literally pick up the pieces from naval activities in and above the ocean give that notion a rousing "huzzah."

Terry Dillman is the assistant editor of the News-Times. Contact him at (541) 265-8571, ext 225, or [terrydillman@newportnewstimes.com](mailto:terrydillman@newportnewstimes.com).

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Regarding: (EIS/OEIS) February 12, 2009  
(AMRAAM) (IEER) (AER) P.O. Box 1004  
Clinton, WA 98236  
And All Related Tests Whidbey Island  
and Equipment

Dear Mrs. Kier,

I strongly disagree with the proposed and continued use of any and all of the above listed systems.

Our entire planet sits in a Universe that is interconnected & fragile. All elements, all creatures are interdependent in regards to our physical nature. The sea mammals & floor need to be maintained in pristine condition for the health & nourishment of those now & future generations.

Choices today affect all of our Well-Being, whether fish populations are affected or depleted Uranium leaks anywhere, our fragile balance & homeostasis is threatened!! There are Other Resolutions. I Pray & Meditate on Peace!! Thank You ~  
2009 February 12, 2009

United States Navy  
Public Hearing Comment Form  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



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Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kier - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than ~~February~~ <sup>March</sup> 11, 2009, to be considered in the Final EIS/OEIS.

Name: Leon + Dianna Eshleman

Organization/Affiliation: residents of Lincoln County

Address: 4025 Lincoln Ave

City, State, Zip Code: Depue Bay, OR 97341

Comments: Thank you for listening. Dianna Eshleman  
No Action Alternative is our preference after viewing the <sup>NAVY</sup> exhibits and listening to the comments from members of fishing organizations (ie: Whiting, Halibut, Salmon, Tuna, etc) and comments about impact on sea mammals from sonar + live ammunition given by OSU scientist and various other persons with expertise or local knowledge of a particular area likely to be impacted with any escalation of usage by the Navy. We are not many citizens, but the beauty, tourism, fishing industry and habitat of the ocean can not escape detrimental environment effects if sonar + live target practice is implemented. Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

Please do not make changes in current NAVY usage.

Richard W. Firth  
10111 Holly Road  
Mechanicsville, Va. 23116

March 28, 2009

Naval Facilities Engineering Command Northwest,  
1101 Tautog Circle, Suite 203  
Silverdale, Washington 98315

ATTN: Mrs. Kimberly Kier – NWTRC EIS

Dear Ms. Kier:

I am writing to express my most profound opposition to your plans for testing sonar weapons along our coastlines and other areas in the Pacific Ocean. Here are my reasons:

The Pacific and Atlantic Ocean belong to all the people of the world not just the United States. This "taking" of marine mammals negatively impacts the entire ecology of our oceans and the life in them which feeds large numbers of people and other species around the world. Now the United States government has decided that California, Oregon, Washington, and Idaho, and the Pacific Ocean marine life in those areas, are expendable in order to test more war weapons of mass destruction. It should be noted that the list of toxic chemicals is a long one as noted in the Navy E.I.S. Depleted uranium, red and white phosphorus, and a whole host of chemicals known to be toxic not only to man, but to marine life, are being served up on the "Navy Warfare Chemical Menu" that will contaminate our air, water, and soil.

White Phosphorus is just one of the chemicals on Navy Toxic Menu: Berkowitz et al (1981), in assessing the potential hazards associated with the use of phosphorus smoke munitions, reported that White Phosphorus residues in aquatic systems can be extremely toxic. Berkowitz stated that the deposition of washout of... White Phosphorus, especially in water bodies may create exposure risks to resident finfish, invertebrates and waterfowl, even if resultant White Phosphorus concentrations are in the low ppb range. 1996)

Water Quality Criteria for White Phosphorus – Authors" Kowetha A. Davidson; Patricia S. Hovatter, Catherine F. Sigmon, Oak Ridge National Lab TN: Abstract: Data obtained from a review of the literature concerning the environmental fate and aquatic and mammalian toxicity of white phosphorus are presented... Laboratory and field studies indicate that white phosphorus is quite toxic to aquatic organisms, with fish being the most sensitive... bioaccumulation is rapid and extensive, with the greatest uptake in the liver and muscle of fish and the hepatopancreas of lobster... other toxic effects to aquatic organism include cardiovascular and histological changes. (1987) (White Phosphorus is an airborne contaminant – used in fog oil and smoke obscurants.)

Mammalian Toxicology and Toxicity to Aquatic Organism of White Phosphorus and 'Phoshy Water' by Authors Dickinson Burrows; Jack C. Dacre: AWARE INC Nashville TN – Abstract: "...white phosphorus is highly toxic to both experimental animals and man... white phosphorus is also highly toxic to aquatic animals..."

Therefore, for not only the sake of our wildlife in these areas but human life as well, which could be seriously impacted, DO NOT GO THROUGH WITH THESE DANGEROUS AND LIFE THREATENING PLANS.

Sincerely,



Richard W. Firth



Fishermen  
Involved in  
Natural  
Energy

225 W Olive Street, Room 110  
Newport, OR 97365  
541-265-4108  
541-265-4176 (fax)

Bob Jacobson, Chair

March 18, 2009

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101

To whom it may concern:

Thanks for extending the public comment period until April 13, 2009. Local notification of the original deadline was certainly insufficient to provide all of the interested parties with an opportunity to respond.

Several years ago, the Board of Commissioners in Lincoln County, Oregon, officially appointed a small but representative group of commercial and recreational fishermen to advise them on how the County should respond to an impending wave energy movement that could potentially preempt these two industries from their historical use of ocean waters off Lincoln County. More recently the Commissioners expanded the focus of the group to include discussion of the controversial marine reserve concept being orchestrated by Governor Kulongoski since this issue also posed a threat to the long-term economic viability of members of these two industries.

The Commissioners, after learning of your plans to reassess and allow your activities within the Northwest Training Range Complex, asked the advisory committee to respond, in writing, with their questions, comments and concerns. While we recognize, understand and appreciate the Navy's mission to defend us, we are never-the-less concerned about the potential impacts of expansion of your activities within the NTR Complex on our livelihoods and subsequently, in the communities in which we live.

Newport, one of the top commercial and recreational fishing ports in the state and the nation, is also the Lincoln County seat. The wide diversity of fish and shellfish in local ocean waters have historically provided a solid economic base of support for the area's 500 commercial fishermen, their families and a wide range of local businesses, including multiple seafood processing facilities, marine supply outlets and fuel docks.

To put this in perspective, the 2007 combined annual commercial seafood landings for Newport and Depoe Bay were 71.1 million pounds valued at \$30.8 million.

*A collaborative committee advising the  
Lincoln County Board of Commissioners  
on the development of wave energy*

In addition, there has been a very significant increase in recent years in the number of locally-owned large offshore recreational vessels fishing for albacore tuna and halibut, as well as many recreational charter vessels building their operations around whale watching and bird watching.

Following are our comments on the DEIS:

- You state in the executive summary of your DEIS that, if you choose **alternative two**, there is a potential for economic impacts to commercial fishing families of the portable undersea training range and underwater training minefield. We are not sure, from reading your material, in what form, or from what, those potential impacts may arise. If it is from debris, left on the bottom as a result of any of your increased activities, we are genuinely concerned for the following reasons:
  - On or near bottom trawling for groundfish and shrimp are two of the primary commercial fisheries in this area. With fishing gear ranging in value from \$25,000 to \$60,000 per vessel, any significant debris left on the seabed inside of 700 fathoms which is large enough to cause the trawler to “hang” the gear may not only cause serious economic hardships, but also pose an imminent threat to the safety of the vessel and crew.
  - We are also concerned about the potential hazard of any live ordinance deposited on the seabed that could be captured by a trawl net and subsequently deposited on the deck of the vessel when the net is emptied.
- One of the “bullets” in your executive summary found under Findings of the Draft EIS/OEIS Cultural Resources states “there will be no likely effects to shipwrecks from expended materials”. That statement is confusing. Does it mean that your exercises will be expending materials in the ocean, but that these materials, in all likelihood, will not cause shipwrecks? What are the expendable materials? Sinking or floating?
- You state in the section on Potential Effects to Marine Life from Explosives, first, that the use of explosives may result in injury or mortality to individual fish in the immediate area but would not result in significant impacts to fish populations or critical habitat. You should be aware that for several species, most notably Canary and Yelloweye Rockfish, any mortality from explosives is unacceptable. These two species, among others, are in a seriously depressed but rebuilding mode and their harvest is banned from all directed fishing. In addition, the directed fisheries for certain other species are limited by the bycatch allowance of Canary and

Yelloweye taken in those fisheries. Any additional mortality to these two schooling species that would exacerbate their current depressed condition will only impede recovery of their stock.

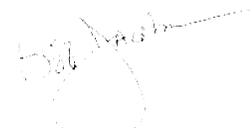
*A collaborative committee advising the  
Lincoln County Board of Commissioners  
on the development of wave energy*

- The document states under Public Safety on the same page that the analyses concluded that there would be no risk to public safety from the proposed action because of the Navy’s implementation of range clearance procedures on land and at sea prior to training and testing activities. Commercial and recreational fishing for one or more species occurs along this section of the coast for the entire year, except under the most adverse weather conditions. Obviously, therefore, there’s a chance that fishing vessels may be displaced, at least temporarily, from their usual and accustomed fishing grounds. How and by whom are mariners notified of an at-sea range clearance and how much lead time are they given? We would hope that the notification is more complete and streamlined than that used to advertise your recent public meeting in Newport.
- We are also concerned about the potential behavioral and/or biological impacts of your proposed expanded training program on marine mammals, particularly whales. As mentioned earlier, there has been an increasing focus among recreational charter vessels on providing the public with viewing opportunities of these ocean inhabitants. Any decreased abundance in or around our two major fishing ports as a direct result of your program is unacceptable.
- It is unclear from reviewing the executive summary where most of the training/testing will occur and what time of year it will take place. Are any of your activities planned for nearshore waters (shelf) or are most scheduled for offshore (slope)?

While we are not saying “not in our backyard”, we are concerned about any significant economic impacts that your proposed activities may have on our local commercial and recreational industries. Our fleets are currently saddled with a myriad of regulations including time and area openings that impose seasons as short as 12 hours (halibut). If one of your at-sea range clearance procedures was implemented during a short season opener such as this it would have severe economic consequences to the industry.

Finally, our group meets once a month to discuss issues of concern and to advise the Lincoln County Commissioners. Membership of the group represents all segments of the industry. We would welcome the opportunity to meet with one of your representatives to discuss your proposed program expansion. We would also serve as an excellent conduit, passing along information that you make available to the industry.

Sincerely,

  
Bob Jacobson  
Chair  
FINE

*A collaborative committee advising the  
Lincoln County Board of Commissioners  
on the development of wave energy*

**United States Navy  
Public Hearing Comment Form  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement**



United States Navy  
Public Hearing Comment Form

Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: MIKE LEDoux  
 Organization/Affiliation: Fishermen's Wharf  
 Address: PO Box 5969  
 City, State, Zip Code: Charleston, OR 97420  
 Comments: "We are a local fish market."

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Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

Gentlemen;

We are a family owned local fish market. Our livelihood depends on the local fishing fleet to supply us with fresh fish. Every year the season changes on catch. January thru August is crab season, the crabbers are usually within 3 miles of the beaches. The drag boats do their thing most of the year, we do get some of their catch but the fish plants rely on them. Albacore Tuna is a major catch for our port! This starts in June or July and can run through October. The fleet can be 500 miles out or usually around 125 miles out. The Tuna come in from down south and go with the current up north. They probably swim past your ships, although blowing stuff up in the ocean may divert their migration. I was in the Coast Guard and thank all those men and women that serve in our military. I also realize the training needed to be on the cutting edge. Although we as citizens also need to be able to make a living as well, hopefully you can do your War Games in an area that would not hinder both parties from accomplishing their tasks needed to function in these United States.

Thanks for your time,  
 Mike LeDoux   
 Fishermen's Wharf  
 P.O. Box 5969  
 Charleston, Or. 95720

John 21, Inc. d.b.a. Fishermen's Wharf ~ P.O. Box 5969 ~ 63534 Kingfisher Rd. Slip-1 ~ Charleston, Oregon 97420  
 (541) 888-TUNA (8862)

April 10, 2009

Dear Mrs. Kier,

Please protect our ocean from Navy Testing. We live in one of the four most productive Ocean areas in world and the testing would be detrimental to this ecology.

The future of the oceans depends on non-polluting uses and wise use of our resource. Potential impacts could cause a rise of ocean temperature. Testing and pollution of chemicals will impact all marine life. Sonar is also harmful to the marine animals and no loss is acceptable, in order for the Navy to play war games. Use your considerable moneys to clean up the environment, instead of destroying it.

Sincerely,

*Leslie Flum*

Leslie Flum  
447 Alder St. B  
Fort Bragg, Calif. 95437

4.10.09  
We write with all due respect  
and sincerity, and speak even  
from the heart of a Navy sub-  
marine veteran — Please do not  
"take" our fellow creatures who  
share the environment with us.  
They are not mere calculational  
damage — they are soul-billed

mammals that are trying to  
do what they have done for  
thousands of years - innocent  
mystanders! We know you must  
train for US Security but NOT  
hazard where you are now.  
Please look at the deeper  
principal. Thank you very much,  
Elizabeth Ford  
Gordon Keller

**PETITION TO STOP THE PROPOSED NAVY WARFARE TESTING PROGRAM EXPANSION  
& THE KILLING OF 32 SPECIES OF MARINE MAMMALS OVER 5 YEARS IN THE PACIFIC OCEAN**

Whereas, a wide variety of marine mammals have already died due to Navy Warfare Testing of Weapons currently underway in the Hawaiian Islands, the Mariana Islands, the Pacific Ocean off the coastline of Oregon, Washington, Southern California, and other areas where testing is now conducted in both the Pacific and Atlantic oceans;  
Whereas, the Navy proposes to expand its NWT Range Complex warfare testing range to encompass more land areas of Oregon, Washington, Idaho, California and the Pacific Ocean; (<http://www.nwtrangecomplexeis.com/Documents.aspx> Navy Environmental Impact Statement)  
Whereas, many chemicals, like white phosphorus, used in this program are toxic to humans, marine mammals, all wildlife, and birds;  
Whereas, the Navy has violated NEPA laws by not informing the majority of the citizens of the United States about this program;  
Whereas, the Navy admits that there are severe declines in some marine mammal populations;  
Whereas, the Navy will "take", harm, maim or kill approximately 2.3 million marine mammals per year over five years;  
Whereas, the Navy will disrupt the fishing and whaling tourist industry near some of their weapons test areas in the Pacific Ocean;  
Whereas, there are sensitive marine areas in the Pacific Ocean which need to be preserved and protected;  
Whereas, airborne sky obscurants like toxic fog oils, red phosphorus, white phosphorus (which is toxic to both humans and marine life), and other military test chemicals can drift and contaminate ocean and land areas;  
Whereas, bomb blasts in the Pacific Ocean, and sonic booms over land areas could trigger earthquakes (sonic booms have caused damage to homes in the past, in California and other states);  
Therefore, we the undersigned, demand that our local, county, state and federal representatives take immediate action to stop the Navy warfare testing expansion in the Pacific Ocean, Idaho, Washington, Oregon, and California, and the "taking" of marine mammals.  
Act Today-Navy E.I.S. Public Comment Deadline is April 13, 2009. <http://www.nwtrangecomplexeis.com/NtrCommentForm.aspx>  
We further demand that NOAA, the National Marine Fisheries Service, and the U.S. Department of Commerce stop any attempts by the Navy to "take", kill maim or harm any marine mammals in the Pacific Ocean.  
Act Today - NOAA Public Comment Deadline is April 10, 2009. OUR GOAL IS 10,000 SIGNED PETITIONS BY MAY 2009.

Printed Name	Printed Address	95460 Telephone #	Signature	Date
Elizabeth Ford	Box 11 Mendocino CA	707-237-2900	<i>[Signature]</i>	4-10-09
Gordon Keller	POB 11, 95460	" "	<i>[Signature]</i>	4/10/09
Ann Walker	POB 223 Mendocino CA	95460 707-1922	<i>[Signature]</i>	4/10/09
Artin Soares	POB 223 Mendocino CA	95460	<i>[Signature]</i>	4/10/09



**CITY OF FORT BRAGG**

*Incorporated August 5, 1889*  
416 N. Franklin St.  
Fort Bragg, CA 95437  
Phone: (707) 961-2823  
Fax: (707) 961-2802  
<http://city.fortbragg.com>

March 9, 2009

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Ms. Kimberly Kler

Sent by FedEx and via email

**SUBJECT: Northwest Training Range Complex Environmental Impact Statement (EIS)**

Dear Ms. Kler,

The Fort Bragg City Council would like to request that the United States Navy extend the comment period for the Northwest Training Range Complex EIS for at least an additional 30 days and that a public meeting be conducted in Mendocino County, California to provide public information about the project and to obtain comments from interested parties.

We believe that the public notification regarding this project was inadequate and evidenced by the fact that the City of Fort Bragg was not notified of the February 2, 2009 public meeting held in Eureka, California. Furthermore, a copy of the Draft EIS has not been made publicly available at any location in Mendocino County, despite the fact that the Northwest Training Range Complex includes areas off of the Mendocino County coast.

Please understand that our community is vitally concerned about activities in coastal waters that may have an impact on navigation and/or marine resources. We request that additional time be granted to allow interested parties to comment on this project.

Sincerely,

Doug Hammerstrom  
Mayor

Dave Turner  
Vice Mayor

Meg Courtney  
Councilmember

Dan Gjerde  
Councilmember

Jere Melo  
Councilmember

Cc: Congressman Mike Thompson  
Senator Barbara Boxer  
Senator Diane Feinstein



**United States Navy  
Public Hearing Comment Form  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement**

Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 2) Mailing this form to:  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler – NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: Colleen E. Fowles

Organization/Affiliation: None

Address: \* 1810 Island View Pl.

City, State, Zip Code: Anacortes, WA 98221

Comments: January 24<sup>th</sup>, 2009

I oppose an increase in training by the Navy on Whidbey Island because of the military air traffic over the city of Anacortes, WA on Fidalgo Is. I have called the base's community liaison several times to complain of the noise. It is so loud that it has cracked the plaster in our bedroom and living room. Attachment #1

It seems that there was an increase in both the amount of traffic and level of noise coinciding with the renovation of a runway at Whidbey Naval Base last summer. By now the runway has been repainted, but it's as if something about the air traffic has been altered without regard to the status of the runways.

The planes are especially loud on overcast days because of reflection of the sound and there are more flights on overcast days. This was confirmed for me by the liaison.

She also says that due to wind the planes may drift from their flight corridor which, if I understood correctly, is supposed to be over the civilian airport. But even on calm days, the planes pass over the forested area around Little Cranberry Lake east of the civilian airport. I know this because I like to walk in the city Forest Lands and I can see the planes directly overhead through the tree branches. We also see the planes from our house which is even further east of the civilian airport and Forest Lands with a view to the north towards Guemes Is. Attachment #2

In contrast to the military flights, we are not especially bothered by the small civilian aircraft landing at the Anacortes Airport. I would estimate the level of noise from the military aircraft to be 2 to 2.5 times louder. The sound is scary loud, like a plane is going to crash into the house. One night I heard one go over at 11:58 pm. I called Senator Murray's office the next day to complain.



800 Franklin Dr., Friday Harbor, WA 98250 \* 360-378-4724 \* fax 360-378-6120 \* [http://www/portfridayharbor.org](http://www.portfridayharbor.org)  
 Commissioners: Mike Ahrenius \* Greg Hertel \* Barbara Maret

I have looked at the map of where the Naval Base air strips are on Whidbey. I do not understand why either runway should require planes to fly over Fidalgo Is. at all. Basically, one runway points west out to sea and the other points northwest out to sea and the San Juan Islands. I am frankly wondering if the residents of Anacortes are being discriminated against out of excessive consideration for the more affluent residents of the San Juan Islands. *Attachment #3*

Fidalgo Is. has a population that is condensed mainly in one area, the town of Anacortes, which exceeds the entire population of the San Juan Islands, which is spread out over a larger land area much less densely.

I would not mind the air training if the plane noise could somehow be reduced. Since that is probably impossible, and since the level of noise is already unacceptable, I am opposed to any increase in training.

Sincerely,

Colleen E. Fowles

P.S. The website comments form at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) does not function.

*p.p.s. I hope that the telephone logs of complaints from Anacortes citizens are made part of the record.*

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

Captain David, Commanding Officer  
 c/o C.O. Bldg.385  
 3730 N. Charles Porter Ave.  
 Oak Harbor, WA 98278-5300

March 11, 2009

Dear Sir,

As you are I'm sure aware, several local newspapers have run stories on the increased aircraft operations that are slated to begin in the future at Whidbey NAS. The Port of Friday Harbor would very much like to voice its concerns over these increased flights. San Juan Island and the Town of Friday Harbor lie directly beneath the Runway 14 approach path and even now get the occasional passage of military aircraft at low altitude and high noise volume penetrating our area. With the reported increase in traffic, I'm afraid we could only expect more of the same.

People live on San Juan Island because of the low background noise and the feeling of being somewhat apart from the hustle and noise of the big city. Creating noise contours in the range proposed would eliminate this sense of peace and serenity. As the airport manager, I receive noise complaints when a Cessna 206 flies too low. Can you imagine what an EA-18 "Growler" will generate? We have worked very hard with our island pilots and with our commuter and charter pilots to follow our noise abatement procedures and have finally developed a pilot community of considerate aircraft operators that try not to infringe on the special quality of life that is the San Juan Islands. To allow low-level over-flights and approaches of these proposed aircraft will undo everything we have gained.

While we support the hard work and dedication of our military, we cannot support this mission.

Respectfully,

David M. Ryan  
 Airport Manager, Friday Harbor Airport  
 800 Franklin Lane  
 Friday Harbor, Washington 98250  
[dave@portfridayharbor.org](mailto:dave@portfridayharbor.org)  
 360-378-4724

The Port of Friday Harbor -- An Island Friendly Port



March 17, 2009

Kimberly Kler, Environmental Planner  
Naval Facilities Engineering Command Northwest  
Attention: NWTRC EIS/OEIS  
1101 Tautog Circle, Suite 20  
Silverdale, Washington 98315-1101

Re: Public Comment Period on the Environmental Impact Statement/Overseas Environmental Impact Statement for the Northwest Training Range Complex

Dear Ms. Kler:

Thank you for the opportunity to comment on the above referenced EIS and OEIS.

FOGH is a broad-based 100% volunteer tax-exempt 501(c)(3) citizens group made up of crabbers, fishers, oyster growers and caring citizens. The mission of FOGH is to foster and promote the economic, biological, and social uniqueness of Washington's estuaries and ocean coastal environments. The goal of FOGH is to protect the natural environment, human health and safety in Grays Harbor and vicinity through science, advocacy, law, activism and empowerment.

FOGH knows that organizations and individuals such as Natural Resources Defense Council (NRDC), Friends of the Earth (FOE), Olympic National Park, the International Fund for Animal Welfare, People for Puget Sound, Beam Reach Marine Science and Sustainability School, Jean-Michel Cousteau, Val Veirs (President of the Board, The Whale Museum), Grays Harbor Audubon (GHAS), Surfrider Foundation, Dr. David Bain, noted marine mammal expert, and others will be submitting separate comments to your office on this review document, often including technical evidence and/or declarations of fact. FOGH may from time to time in these objections refer to these comments and materials and FOGH hereby incorporates by reference all of the comments, declarations and materials submitted by these organizations or by FOGH members or partners.

Although FOGH is generally in support of limited Coast Guard and Naval exercises along the coastline of our State, we strongly object to the expansion of the training as proposed in the subject documents. Our resource industries on the coastline of Washington include crab, shellfish, fin fish, aquatic plants and aquatic animals in addition to the relatively pristine nearshore habitat that is a magnet for watchable wildlife and tourism. As populations of humans grow and their encroachment on the symbiotic relationship to ocean, estuaries, rivers, streams and land becomes further exploited, we must raise concern.

We appreciate that the Navy produced wordy documents of significant bulk, however we question the content and whether these documents were to explain the impacts or merely present the public with an onerous task to review some 1,700 pages of acronyms and confusing statements.

Statements in the EIS/OEIS often refer to data that appears to be dated or simply dismissed because there is no data, therefore there must be no impacts. Cumulative impacts is an important concept in the intent of the NEPA process and it does not appear that the Navy research has satisfied this intent. Rather it appears that the document has been written to support a conclusion that suits the outcomes preferred by the Navy, rather than those which would independently analyze the effects of the actions taken.

Post Office Box 1512 Westport, Washington 98595-1512 Phone/Fax (360) 648-2254  
<http://fogh.org> [rd@fogh.org](mailto:rd@fogh.org) [brady@fogh.org](mailto:brady@fogh.org) 501(c)(3) tax-deductible

FOGH Comments NAVY EIS/OEIS Page 2

The vastness or "sheer size of the Range Complex" is often cited as a reason that there will be "no significant impact and no significant harm...." Another frequently used canard is "...no studies have established effects of cumulative exposure." This appears to be a reoccurring theme which is used as a justification for soldiering ahead towards an unwise outcome.

A recent study by marine ecologist James Proter, associate dean of the Odum School of Ecology at the University of Georgia reported that feather duster worms, sea urchins and various types of coral found near bombs and bomb fragments contained high levels of carcinogenic material -- in some cases 100,000 time more than what is considered to be safe for commercially edible seafood. It stands to reason that any filter feeder, such as clams, oysters, or organism that feeds on such will also be affected. The Navy already admits that some of the 20 mm CIWS (Close-in Weapon System) rounds fired into the Washington coast region may contain depleted uranium (DU). The half-life of DU isotopes is 244 thousand years for 234U, 710 million years for 235U and 4.46 billion years for 238U.

An Army training manual issued by the Pentagon warns that anyone who comes within 25 meters of any DU-contaminated equipment or terrain wear respiratory and skin protection and further says that "contamination will make food and water unsafe for consumption." We presume that DU in seawater should cause concern for marine organisms and possible increases in dangerous levels of toxic substances.

What is the effect of munitions on benthic organisms and how can seafood consumption safety be ensured with an increase in the Naval training excises? Increased training and exercises should not proceed before there is definitive research on the impact over time of US Navy munitions testing and discard of munitions material off the Northern Washington coast on benthic and invertebrate food chains. This needs to be properly assessed for fish, crab, clams, birds, mammals and other organisms which utilize our oceans and nearshore habitats.

While it is a noble goal to train personnel in an area that is close to home, so they can be near their families and support groups, it is not acceptable to trade that convenience for the potential collapse of the resource communities livelihoods. We strongly object to the expansion of the Northwest Training Range Complex.

Respectfully yours,

Arthur (R.D.) Grunbaum  
Vice President



Post Office Box 1512 Westport, Washington 98595-1512 Phone/Fax (360) 648-2254  
<http://fogh.org> [rd@fogh.org](mailto:rd@fogh.org) [brady@fogh.org](mailto:brady@fogh.org) 501(c)(3) tax-deductible



By Internet and U.S. Postal Service First Class Mail

March 11, 2009

Kimberly Kler, Environmental Planner  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101

Re: Northwest Training Range Complex Draft Environmental Impact Statement/Overseas  
Environmental Impact Statement

Dear Ms. Kler:

Please accept the following comments from Friends of the San Juans ("Friends") in response to the Draft Environmental Impact Statement for Navy Training Operations in the Northwest Training Range Complex ("DEIS") that the Department of the Navy noticed December 30, 2008. Friends is a 501(c)(3) non-profit organization whose mission for 30 years has been to protect the land, sea, water & livability of the San Juan Islands and the Northwest Straits through education, citizen involvement, science, and law. Friends is a membership organization based in Friday Harbor, San Juan Island, and representing approximately 2000 members.

Friends is fortunate to have a former naval officer among our Board Members. With his advice and counsel, Friends has an appreciation for the Navy's strategic national responsibilities and need for realistic training requirements to maintain unit and fleet operational readiness. Fortunately, if structured intelligently, this training need not compromise ecological integrity for the sake of military preparedness.

However, a meaningful analysis of potential environmental impacts pursuant to the National Environmental Policy Act ("NEPA") is critical for developing sufficient ecological knowledge to understand how to avoid impacts associated with the Navy's proposed expansion of the Northwest Training Range Complex ("NWTRC"). The DEIS published by the Navy does not achieve this meaningful analysis, and thus must be revised in significant detail prior to publication of the Final Environmental Impact Statement ("FEIS"). In addition to the substantial errors and omissions that the NRDC and others (and in which Friends concurred) identified in their comment letter submitted March 10, 2009 ("NRDC letter"), the Navy must address the omissions below.

A. Inadequate Evaluation of Marine Mammal Impacts and Measures for Their Protection.

Friends requests that the Navy establish an Orca Protection Zone that would exclude sonar training activities in the inshore waters of the greater Puget Sound, including the Salish Sea surrounding the San Juan Islands. The Southern Resident killer whale, a species listed as

endangered under the Endangered Species Act ("ESA"), frequents these waters, and has in the past suffered behavioral modification in association with Naval activities.

In May 2003, the USS Shoup (DDG 86) impacted the endangered Southern Resident killer whale when it conducted a mid-frequency sonar exercise while transiting Haro Strait, off the west coast of San Juan Island, Washington. Observers, both onshore and afloat, saw numerous porpoises and killer whales appear to stampede simultaneously in response to an electronic noise, audible to humans, echoing through the Strait. Field biologists on the scene reported observing: (1) a pod of endangered orcas clustering near the shore and engaging in very abnormal behavior described as consistent with avoidance; (2) a minke whale "porpoising" away from the ship; and (3) Dall's porpoises fleeing the vessel in large numbers. Eleven harbor porpoises—an abnormally high number given the average stranding rate of six per year—were found dead on a number of beaches in the area several days to weeks after the exercise.

A protection zone would also avoid undermining local orca protection efforts. San Juan County, in an effort to protect our Southern Resident killer whales, created an ordinance in 2007 that established a vessel exclusion zone around orcas as a temporary measure until federal regulations could be formulated. Ordinance No. 35-2007 (Sept. 11, 2007). Whale watching vessels, in conjunction with incidental encounters by private boats, create substantial amounts of noise which can disrupt feeding, nursing, and social interactions of the whales. Chronic high marine noise levels have been implicated along with a declining food supply as primary factors in the documented decline in the number of resident orcas. A prominent Killer Whale behavioralist, Ken Balcomb, has identified sonar as terrifying and confusing to marine mammals and indicates that it might induce them to beach themselves or otherwise try to escape from their natural habitat. Michelle Ma, U.S. Navy Seeks to boost practice exercises off West Coast, in region, (March 8, 2009) (found at [http://seattletimes.nwsource.com/html/localnews/2008827019\\_navy08m.html](http://seattletimes.nwsource.com/html/localnews/2008827019_navy08m.html)).

All inshore waters of Greater Puget Sound, including San Juan County and the Straits of Juan de Fuca and Georgia should be sonar exclusion zones except in time of active maritime hostilities within or near CONUS waters. In addition, limiting, curtailing, or relocating sonar exercises in Continental Slope waters, submarine canyons and banks, and outer coastal waters from the shoreline to the 50 fathom contour should be standing orders when marine mammals are present.

In addition, to better respond to the presence of marine mammals generally, the Navy must adopt more effective measures than visual observation for detecting those animals. Reliance on visual monitoring by lookouts or bridge personnel for the presence of marine mammals is difficult in most sea states, and nearly impossible under nautical twilight and nighttime conditions. Aircrew of maritime surveillance aircraft, despite other primary duties, if trained and tasked to observe and report marine mammal sightings prior to, during, and after exercises, would greatly enhance and increase the reliability of marine animal detection in operational areas. Use of these assets could significantly reduce ship strikes of whales, result in the avoidance of harmful sonar use, and reduce the danger of ordnance interaction with marine mammals. Greater reliance on passive detection systems such as towed arrays or sonobuoys for identifying marine mammal presence would also contribute to lowered risk from harmful active sonar use or other physical hazards.

PO Box 1344 Friday Harbor, WA 98250 Ph: 360-378-2319 Fax: 360-378-2324 [www.sanjuans.org](http://www.sanjuans.org)  
*Protecting the San Juans, preserving our quality of life.*

The proposed mitigation measures for sonar impacts fail to adequately protect marine wildlife. The very limited safety zone around a sonar source is insufficient to prevent injury or behavioral disturbance to marine mammals, as evidenced by the response of animals at a distance measured in nearly nautical miles rather than hundreds of meters in the USS Shoup incident.

In addition, the Navy should adopt sonar mitigation measures that realistically reflect sound pressures below thresholds identified by scientists for the most vulnerable species present, or likely to be encountered during an exercise. These thresholds are identified in greater detail in the NRDC letter.

B. Overflight Impacts Not Fully Evaluated.

The DEIS indicates its position at page 3.5-15 that sound-generating events occur in remote areas and thus do not expose a substantial number of human receptors to high noise levels. However, as aircraft transit to and from the remote or off-limit areas, they emit substantial levels of noise over otherwise tranquil areas of the southern San Juan Islands. Consequently, the FEIS must evaluate the economic impact of these significant noise levels on businesses in that area engaged in the tourism industry, as well as impacts on residents in those areas.

In addition, the DEIS assumes without analysis that continued aircraft activities at current levels will not impact avian populations on the grounds that current conditions do not cause impacts. Yet the DEIS notes at page 3.10-25 that individual birds may be injured or killed by aircraft strikes. Similarly, the DEIS takes the same, unsupported position with regard to ordnance use, underwater detonations, expended materials, and entanglement. In the absence of an evaluation of the fecundity of the various avian species identified in the DEIS, the conclusory assertion that naval activities will not affect those species on a population level does not find adequate support in light of the known likelihood of injury and deaths. Consequently, the FEIS must identify population trends of the bird species identified in the DEIS to determine exactly how naval activities will impact those populations.

C. Oil Spill Impacts Not Analyzed.

Although the DEIS recognizes that oil spills have contributed to the decline of species listed pursuant to the ESA, such as the marbled murrelet, it omits any analysis of oil spill impacts from its activities. The presence of heavy tanker, barge, and large ship traffic in the waters surrounding the San Juan Islands makes oil spills a continuing and constant threat. In addition, spills off coastal waters, particularly in the Olympic National Marine Sanctuary, could be devastating to a multitude of animal species, resulting in ecological and economic catastrophe for that area. Notwithstanding the Navy's seamanship skills, accidents can and do happen during individual unit and fleet exercises. The Navy should increase its diligence regarding the potential for oil spills and overboard discharges during exercises, particularly when submarines are involved. Such diligence will help avoid incidents such as the USS Topeka's (SSN 754) severing of a towline of an oil barge, and the USS Nevada's (SSNB 733) similar separation of an oil barge and tug, both off the coast of Washington. The FEIS must evaluate the potential for naval activities to lead to an oil spill, either from their own vessels, or those engaged in the significant amount of petroleum trade that passes through the proposed NWTRC.

D. No Assessment of Impacts to Recreational Users.

The DEIS identifies at section 3.13 the use of waters proposed for the NWTRC by recreational users, such as sportfishermen, kayakers, boaters, and other marine visitors. The DEIS does not, however, identify impacts of any of the three alternatives on those users. The FEIS should rectify that omission.

E. The DEIS Does Not Assess Impacts to Tribal and Non-Tribal Commercial Fishing Operations.

The DEIS states that while impacts to fish from activities such as explosions are possible, there is a low potential for their occurrence. DEIS, at 3.7-34-38. The DEIS does not, however, justify its claim regarding the low potential for explosion impacts on fish. The FEIS must actually evaluate whether the Navy's expanded NWTRC will impact fish populations, and if it suggests that the proposed activities do not, must justify that position. To the extent that NWTRC activities impact fish populations, they may compromise the continued existence of tribal and non-tribal commercial fishing operations that rely on those fish.

F. The DEIS Cumulative Impacts Analysis is Inadequate.

The DEIS omits a substantial amount of cumulative impacts analysis necessary to render the DEIS adequate. First, the DEIS fails to evaluate the impacts of discarding underwater debris at an increased rate well into the future. Second, the DEIS does not evaluate the cumulative impacts that its activities will have on marine mammals and fish in connection with the impacts that those species are already suffering in response to nearshore development, such as shoreline armoring and overwater structures. Third, the DEIS fails to analyze the cumulative impacts of its acoustic impacts on marine mammals, such as the Southern Resident killer whale, in conjunction with the impacts caused by the vessel-based whale watching industry, which pursues those whales for extended periods. Finally, the DEIS does not assess the cumulative impacts that the proposed activities will have in combination with behavioral and other changes that will result from climate change. The FEIS must identify and evaluate the impacts to species likely to exist in the vicinity of the NWTRC as climate change impacts intensify and warm the waters in that area.

G. Conclusion.

While the DEIS offers a significant amount of verbiage to support the Navy's proposed NWTRC expansion, it does not provide sufficient environmental analysis to understand the full impacts of that expansion. Consequently, Friends urges the Navy to revise the DEIS in significant detail, as identified above and in greater detail by other commenters, prior to publication of an FEIS.

Sincerely,

  
Kyle A. Loring  
Staff Attorney

**United States Navy  
Public Hearing Comment Form  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement**



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than March 11, 2009, to be considered in the Final EIS/OEIS.

Name: Dana Gaab

Organization/Affiliation: Human Rights Advocates of Coos County

Address: Box 991

City, State, Zip Code: North Bend, Or. 97459

Comments: It is difficult, if not impossible, to respond substantively to the NWTRC DEIS, as copies were not made available to respond effectively. I live in the largest population center on the Oregon Coast. We were not informed that the EIS process was even taking place. The deadline for comments on the [NOT TO BE SEEN] DEIS was only extended at the urging of our legislators. Where were the scoping meetings + public hearings for a proposal that will effect humans, marine life and our environment so greatly? I vehemently object to the entire process the U.S. Navy has chosen to pursue concerning the NWTRC. The entire process should be started over and the public given the full opportunity to be included from the beginning

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

I request a hard copy as I am not able to view CD's

**United States Navy  
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All comments must be received no later than March 11, 2009, to be considered in the Final EIS/OEIS.

Name: John L. Galland

Organization/Affiliation: \_\_\_\_\_

Address: 32771 NAVARRO RIDGE ROAD

City, State, Zip Code: Albion, CA 95410

Comments: I AM OPPOSED TO YOUR EXPANDED NEW PLANS FOR WEAPON TESTING IN THE OCEAN OFF THE MENDOCINO COAST & THE NORTHERN PACIFIC COAST. MY REASONS ARE ENVIRONMENTAL DEGRADATION, WITH RESULTING JOB LOSSES, TO A POPULATION ALREADY STRESSED BY A Crippled FISHING INDUSTRY, TOURIST INDUSTRY AND LAST BUT NOT LEAST PRIMARY IMPORTANCE - THE HEALTH OF THIS POPULATION WHO RESIDE ON THE MENDOCINO COAST.

Sincerely

*[Signature]*

John L. Galland

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

32771 NAVARRO RIDGE RD  
ALBION, CA 95410

United States Navy  
**Public Hearing Comment Form**  
 Northwest Training Range Complex  
 Environmental Impact Statement /  
 Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

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- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
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Naval Facilities Engineering Command Northwest  
 1101 Tautog Circle, Suite 203  
 Silverdale, WA 98315-1101  
 ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than March 11, 2009, to be considered in the Final EIS/OEIS.

Name: SABRE REIGN King Gallo RN

Organization/Affiliation: \_\_\_\_\_

Address: 32771 NAVARRO RIDGE ROAD

City, State, Zip Code: Albion, CA 95410

Comments: As a registered nurse, mother of 4 college level to doctorate level children, my two youngest daughters majoring at UC Berkeley & UC Santa Cruz majoring in Marine Science & Marine Biology, my son with a doctorate in Geographical Conservation Biology. Married to a physician in medicine with our last child getting here next in medical school work, we as a family have lived in Mendocino County, raising our children in Navarro Ridge in Albion, CA. My father a fisherman & lumberjack his entire life, that I have a good back ground in not only struggling fishing & timber industry, but environmental, especially educated to address this proposal. I am opposed,

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

to your expanded new plans few weapons (over →) test in the ocean off Mendocino County & the Pacific Coast.

My reasons are #1. It is environmentally unsound - You know the endangered species that will be effected - Snow plover - endangered brown pelicans, grey whales, bald eagles, a multitude of migrating bird species - Terns, swans, Canadian geese, etc... not to mention the intertidal species - but let us not forget our food sources.

#2 - It will devastate any hopes of a fishing industry's recovery - not to mention, abalone, steel head, salmon, seaweed & clams, crab all our food sources.

#3 - Our tourism is crippled already with this version & could not sustain another blow to failing small businesses and ultimately jobs for this community.

#4 - The emotional stability of this population is already showing signs medically of decomposition under these stresses. Daily I work in my husband Dr Gallo & his colleagues at North Coast Family Health Center a hospital based renal health clinic and it is agreed by all the population that depends on the jobs generated by a health ocean are severely stressed and their health is worsening because of it.

Thank you for considering my comments & please respond. Sincerely Sabre Reign King Gallo  
 32771 Navarro Ridge Rd  
 Albion, CA 95410

(Document 1 of 4, TmkG)

Commander, U.S. Pacific Fleet  
Kimberly Kler, Environmental Planner  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101 360-396-0927  
<http://www.nwtrangecomplexeis.com/NtrcCommentForm.aspx>  
March 9, 2009

Theresa Marie K. Gandhi  
Whidbey Island Chemically Injured Network  
P.O. Box 437  
Clinton, WA 98236 [tm@tmgandhi.com](mailto:tm@tmgandhi.com)

Howdy Kimberly,

The three documents plus this one I submit as my "Comments on Northwest Training Range Complex EIS/OEIS Draft December 2008" Document three and four are references for statements made in document one and two. In the specific "Comment" document I have used italics for my statements and underlined my recommendations. Material taken from the EIS/OEIS Draft is in quotes with section and page number noted.

I am qualified to make these statements because of: a year of college organic chemistry; eight years of immersion in "best available science" on toxic chemicals in the environment; marine species and humans. I have hundreds of documents on this topic that have been used to make comments on several draft Environmental Impact Statements. Official Comments have been submitted by this writer on topics related to: herbicides for roadside vegetation control; Salmon Plan for WIRA 6; Island County Critical Areas and Wetlands regulations and U.S. Department of the Interior's BLM EIS to apply thousands of pounds of herbicides to one million acres in Western States for Fire Suppression.

Reading the draft EIS/OEIS has raised my blood pressure as I experience incredibility, disbelief, skepticism and even outrage at the hubris of Former President Bush, his Secretary of Defense, the Commander, U.S. Naval Fleet and those who assembled the draft NWTRC EIS/OEIS.

The Navy's analysis of the potential environmental impacts to the human environment that "may" result from the U.S. Navy's Historical "No change" Alternative of ongoing practices: Proposed Actions of the preferred Expanded Alternatives and proposed increased naval activities within a greatly expanded NWTRC are severely lacking in comprehensive credible science. "Science" referenced and references are found to be old and inaccurate when compared to "best available science". Assumptions, declarations and statements extrapolated from the "science" referenced are thus found to be inaccurate. This means that historical, ongoing and preferred expanded alternatives will expose marine species, habitats, aquatic life and near shore inhabitants, i.e. people, too much greater harm than claimed by this EIS/OEIS draft. I found "scientific" studies lacking credibility with inaccurate conclusions. Whales that wash up dead on the beaches of Whidbey Island, there of been several, have to be disposed of at a hazardous waste facility. The draft writers' assumptions that toxic chemicals and hazardous wastes from

training activities and operations would not experience bioaccumulation up the food chain to human consumption marine species and marine mammals are not based on "best available science". Southern Puget Sound Orca Whales are one of the most toxic burdened species on the planet.

As a Hanford Downwinder born north along the Columbia River in 1946 I had to research radiation in all it forms in order to overcome death by cancer from exposure to radiation. Department of Energy - DOE # TCDF58 is my number as part of the dose reconstruction project having received a minimum of 2,900,000 MREMS in my sixty three years. My greatest exposure came before birth and for the first two years of life. As part of a family and community cancer cluster I scattered my 41 year old brother's ashes after he had tightened the bolts of a nuclear reactor in a submarine with paper booties for protection. Of the four out of six in my immediate family experiencing cancer, three are dead.

Radiation's "No Apparent Danger" is not true. The NWTRC EIS/OEIS Draft referencing a thirty-five year old report: "Ecological Considerations of Depleted Uranium Munitions" assembled at Los Alamos, NM weapons laboratory before the most recent generation of DU weapons were used in combat and could not possibly address the issues raised after nineteen years of use. Nor could claims made by the U.S. Navy or any branch of the military on the "harmlessness" of deplete uranium weapons be credible. Testing large particles of uranium does not and can not be used to say what the pulverized matter created by use of these weapons would do to humans or aquatic life. Depleted Uranium weapons are fourth generation nuclear weapons and their use violates several international treaties, conventions and agreements. (See [www.GulfWarVets.org](http://www.GulfWarVets.org))

Depleted "nano particles" of exploded Uranium, which forms a poison gas, are not less harmful just because large particles in another form had tested so. These are some of many government and military lies told in the "Name of National Security". (See "Experts on Radiation, document 3 of 4).

The mists of exploding DU weapons into nanoparticles are no where referenced in this NWTRC Draft EIS/OEIS. One thirty-five year old of two references used large particles of uranium in the studies referenced. If they had studied the poison mists of nanoparticles of DU the results would have been kept secret. Military and government agents have threatened those whose investigations showed extreme cancer risk from the nanoparticles with loss of job, homes burned and lives were threatened. Radiation experts, Japanese investigators and medical personnel were denied entry into Iraq.

I've prepared a six page abstract of "Experts in DU Radiation Effects" including the professional credentials of the researchers, doctors and investigators. Studies on the nano particles of tungsten are probably rare or lacking. And it maybe that the DU bombs vaporized to date that are greater than or equal to the fall out of 83,000 Hiroshima sized bombs also contained tungsten, I don't know. The radioactivity trail of the uranium was easier to track.

"Marine Mammal Deaths and Naval Hubris" backs up the validity of my statements regarding marine mammal's deaths with references. Data provided by the draft EIS/OEIS and a document search regarding the multiple "takings", i.e. killing, of marine mammals with the use of mid-frequency active sonar use are cited.

These two documents are included as part of my comments for a total of four documents submitted as my Comments on the NWTRC EIS/OEIS draft. (Identified as document 1 of 4 TmkG.)

“Best available science” is often not considered if it is not looked for. Washington State Department of Transportation -WSDOT proved that in their EIS process by only considering comments from Chemicals Corporations on implications or effects of potential harm for humans and aquatic species of their products. Ignored were hundreds of “best available scientific studies” proving the link between the chemical formulations used and their endocrine dysfunction aspects on species exposed. Many of the chemicals in the formulations have been linked with the feminization of males, decreased sperm counts species wide and linked with erect penile dysfunction, testicular cancer in humans and a number of other terminal diseases. Island County had the scientific findings put before them until they stopped using all herbicides for roadside vegetation control.

WSDOT ignored the endocrine dysfunction “peer review scientific studies” submitted that resulted in the Secretary of Transportation requesting an EIS process to look at issues I had raised. Ray Willard, WSDOT, contracted out the work and would not respond for months to my requests to know if the very challenges “best available scientific studies” showed were being dealt with in the WSDOT-EIS until it was too late. Washington Toxics Coalition submitted eighteen pages addressing all of the issues ignored in the EIS and WSDOT, like the Navy is likely to do, deemed the comments “too comprehensive and complete” to be dealt with. The comments were not included in the final EIS document but rather the claim was made that WSDOT was taking care not to harm humans or the environment.

Including a report of a process of framing an EIS so as to not honestly examine very valid issues of potential harm done by WSDOT is not unlike what the Navy is doing with the current NWTRC EIS/OEIS draft. This puts the entire integrity of the process of securing a final NWTRC EIS/OEIS by the U.S. Navy in the column of dishonesty conducted with a lack of valor.

I am skeptical that the Navy will heed the implications of “best available science” because of my experience over seven years in dealing with WSDOT that held itself “an island onto itself”. It took five years of work by a small group of Whidbey Island citizens using “best available science” that resulted in WSDOT now using 30% less toxic chemicals on all State Routes. 2008 use of herbicides is a 70% reduction from the highest amount used in 1993.

It appears that the U.S. Navy does not honor the concept of a Sanctuary nor do they think they are subject to many current laws and international agreement regarding Olympic Coast National Marine Sanctuary - OCNMS. Instead the Navy WANTS every square nautical miles of the 122,440 and have secured a permit to kill, “take” marine mammals if when and where they so choose even from a small part of the totally vast NWTRC area. The OCNMS is only 1.3% of the 122,440 square nautical miles but the U.S. Navy must have even this small part.

Like the claim the Navy is making based on inappropriate scientific studies that no harm will come to humans, marine species, their habitats or the environment. This reasoning lacks Common Sense.

The Endangered Species Act carries fines against anyone, agency or government body who harms the habitat of Chinook salmon or salmonid at \$15,000.00 to \$25,000.00

per fish. As all of Whidbey Island near shore is Chinook habitat it is especially applicable to this draft EIS proposal. A lawsuit against the Navy for a massive fish kill from a small sized explosion off of NAS Whidbey using one of its smaller bombs does not bode well for endangered Chinook salmon. This fish kill was witnessed. How many are not?

Chinook, Coho, Sockeye, Atlantic, Chum salmon and Steelhead Trout with eight additional species of salmon are listed as Endangered. An additional twenty-five are threatened as the salmon population supports the whale populations which are in serious decline with eighteen marine mammals species listed as Endangered Species. This delicate balance for so many species of marine mammals that are close to tipping into extinction will surely be harmed and extinction hastened by the Navy’s proposed “Preferred Alternative”, its activities and insistence on using the 1.3% of 122,440 square nautical miles of the Olympic National Marine Mammal Sanctuary. Marine mammals and populations of fish in the tens of thousands will be eliminated because naval personnel lacked the will to figure out a way to not do so. This is embarrassing.

I know the Strategic Military Thinking that mandates the U.S. Navy carry out a mission as directed by the Commander in Chief, President Obama. This current draft that we are discussing was started when President Bush held that position. The whole process is flavored with the same hubris President Bush used to fabricate intelligence to take our valued troops to war against a country that had not attacked us on 9-11. Over 500,000 of those very same veterans wounded mentally or physically are currently homeless and denied health care by denying the link between military service and harm. (See [www.GulfWarVets.org](http://www.GulfWarVets.org).)

In the Navy’s EIS scoping process the issue is that inappropriate scientific studies are being use to imply no harm will come to marine species and environment, humans and their environments. Thirty-five and fifty year old reports of studies are so out of date that the use of them as references to validate statements within the NWTRC EIS/OEIS contributes to the hubris that the Navy only need to carry out the form but not the substance of a valid look at what could and will in fact harm marine mammals, aquatic life and degrade the environment so valued by residents of the states impacted.

If it is true and is allowed to stand that President G.W. Bush signed an Executive Order authorizing the National Marine Fisheries Service to issue an LOA authorizing **10 million uses of the U.S. Navy’s new sonar through 2014 contrary to the Marine Mammals Act ensures the Death of The Last of Earth’s Whales and Marine Mammals**. The hubris of authorizing the elimination of multiple marine species is a violation of multiple International Treaties, Agreements, Federal law, Federal and State Court decrees and laws of other Countries and their Court’s rulings is unacceptable.

The Navy has committed critical errors of omission of “best available science”, obvious obfuscation of data input and study parameters with the results of science based upon inadequate or comprehensive understanding of the true facts. This disregard of the implications of the effects of these toxic chemicals for multiple species generational integrity is unacceptable. Even if the makers of these agents of death had to fabricate or misdirect research efforts to gain approval and if this was done in the “Name of National Security” no one outside of “Need to Know” would be allowed to “Know”.

Manipulation of science has been done in the past by various aspects of government and the chemical industry. The only lawsuit filed against the Manhattan Project was to protect duPont Chemical Ltd of liability for killing a goat and all life on a

New Jersey farm with a fluoride release from their plant making it for atomic bombs. Dr. Harold C. Hodge, chief of fluoride toxicity studies for the Manhattan project became the leading national proponent of fluoridating public drinking water. Dr. Hodge was sent to New York University at Rochester to fabricate science to prove fluoride harmless. Fluoride is not harmless. Reference "Project Censored" USC -Sonoma.

The ultimate result of shortening the lives of those who will be exposed to the toxic exhaust; weapon fragments; radioactive nano particles; salt water columns and bottoms littered with very toxic chemicals, hazardous waste and other byproducts of the U.S. Navy conducting training activity is unacceptable. No valid scientific studies were conducted to prove the assumptions that these materials will not harm marine life.

This lack of ingenuity, creative thinking, innovation and alternatives is disappointing given the good intentions of the majority of our military service naval commanders, officers, service men, women, support staff and support industries. Where is the American can do to preserve life? Has the expectation of acceptable collateral damage of innocents been woven into the military thinking of those we expect to protect us from enemies foreign and domestic?

I do not dispute the mandate given to the U.S. Naval Commander, U.S. Pacific Fleet. I was raised with patriotic pride as the step-daughter of a Korean War Navy veteran; daughter of thirty year Coast Guard cook; sister of brother serving the Navy for six years. My nephew, 20+ years with Army Special Forces has been in Iraq since 2003. I am the grandmother of an Air Force Registered Nurse in Germany and second cousin to Robert Hanley, a former Commander in the Sixth Fleet. I have the highest regard for the U.S. Navy and all who serve our country whether by water, air or land.

I do object to the process, road blocks with the comment computer and limited notice among other issues. Did you confer with Vice President Cheney on how to keep the process secret? The Senators and four Congressmen from Oregon would probably agree as they have written to the Secretary of the Navy to extend the Comment Period to April 11, 2009. They did so citing inadequate notice, restricted comment time and inadequate public meetings. Thank you for extending the comment time if not to April 11 at least to March 11<sup>th</sup>.

My remarks are limited as I have only had time to read one and one-third volumes. Based upon what I have read and combined with what I know and am providing is but a small part of that knowledge.

I request that there be no expansion beyond the mis-named "No Action" Alternative and that the Navy go back, examine and re-evaluate assumptions being made. I do not know if the Navy ever did a scoping process for the "No Action Alternative" or produced a properly reviewed EIS/OEIS or are attempting to grandfather in what is already taking place. Further investigation of the potential impacts of operating in near proximity to Endangered Species using technology that harms and kills are needed to be carried out by independent "best available scientific studies".

Knowing that harm and death occur, having gone to the trouble of getting an exception not granted any other organization or government body; knowing that Endangered Marine Mammals follow Endangered salmon through, about and within the NWTRC Study Area activities should be suspended in the areas of sensitivity mid April through mid October. Areas of sensitivity are the traditional ocean to rivers path ways used for hundreds of years by resident aquatic species.

Unless and until recommendations made by Howard Garrett of the Orca Network, the National Resources Defense Council along with the Organizations that signed their submission, Conservation North West and my objections and questions can be addressed on the inadequacy of the NWTRC EIS/OEIS Draft training should stop and or be limited within 300 miles of the Olympic National Marine Mammal Sanctuary. Until these recommendations and questions can be address as submitted by the above organization no expansion should be allowed. Until recommendations can be put into place and appropriate training can be given to Sonar personnel all training should be suspended in critical areas rather than use technology that the Navy knows kills multiple Endangered Species.

Unless you can clone Clark Kent/Superman to be a look out with super sight and listening with super hearing for species that seeks not to be found to be present on sonar duty on all vessels the U.S. Navy should stop "takings" of multiple Endangered Species. How would a "look out" work on submarines?

Current sonar technology does kill and its effects are heard much further than the draft EIS/OEIS admits. A Navy sonar expert has research that shows the sonar is heard 300 miles and maybe more from its source. This was not mentioned in the EIS/OEIS draft.

Please find the will, intelligence and ingenuity that the U.S. Navy is known for and find a way that training can occur and Endangered Species are not "taken" in the process. When did it become okay to kill, harm or damage that which the U.S. Navy is mandated to protect? The lives, environment, way of life and economic violability of multiple communities along the West Coast and within Puget Sound depend upon each of you to find a way to both protect and defend our quality of life. This means living in harmony and without harming our varied marine species, especially those that are threatened and or endangered.

For my part I will continue to communicate to the President, Secretary of State and United Nations members to find non-violent ways to achieve peace and justice. And I will pray that no person serving his Country in the Military will have to kill or be killed.

Please remember that no member of any aquatic species has ever sought to "take" the life of anyone in the U.S. Navy. Please find a way to not have to "take" their lives.

I agree with the Comments submitted by the National Resources Defense Council, Organizations who signed on to their comments, Conservation North West. Please implement their recommendations along with the very intelligent and knowledgeable comments and suggestions made by Howard Garrett.

Please answer the questions I have raised. Please check out the complete reports I have referenced in my two supporting documents.

Thank you for the opportunity to be a part of this process in submitting my four part comments to the NWTRC EIS/OEIS Draft December 2008. I will be sending copies of these documents to my Congressional Representatives, President Obama, other organizations and the media.

More than the average person I know the importance of a well trained and mission ready Navy. I have studied extensively U.S. Strategic National Security theory and tactics; the moral and political thought of Mahatma Gandhi; participated in 1988 at Oxford as part of the Secretariat of the Global Forum of Religious and Parliamentarians

on Human Survival; attended the Global Forum in Moscow in 1990; am the former wife of a Mahatma Gandhi relative; six of my family have served in the military and I joined the Veterans of Foreign Wars Auxiliary in 1970.

I support our troops and I believe that with the will to do so military personnel can do anything. Please create a win win and find ways to train without killing endangered species. The NWTRC EIS/OEIS Draft 2008 is a good beginning but does not represent the quality of work that I know the Navy can perform. I have given weeks of my life that I could have used to promote my just published book. A tenth surgery scheduled this month could be fatal. I have given above and beyond please do the same. Thank you.

Conclusion of Part 1 Introductory Remarks.

Part 2 Comments

Part 3 Experts in Radiation

Part 4 Marine Mammal Deaths and Naval Hubris.

Respectfully submitted,  
Theresa Marie K. Gandhi  
Whidbey Island Chemically Injured Network  
Whidbey Island No Spray  
Washington State resident since 1946  
Veterans of Foreign Wars Auxiliary since 1970



(Document 2 of 4 TmkG)

Comments from Theresa Marie K. Gandhi on NWTRC draft EIS/OEIS Dec 2008  
Whidbey Island Chemically Injured Network [tm@tmgandhi.com](mailto:tm@tmgandhi.com)

Comments to NWTRC EIS/OEIS draft December 2008 to conduct training, research, development, testing and evaluation of military hardware, personnel, tactics, munitions, explosives or electronic combat systems. NW Range Complex encompasses more than 122,440 square nautical miles of ocean and inland waters of Puget Sound. The range complex also includes more than 34,000 square nautical miles of airspace.

*Achieving the Navy's mandate and mission by any means necessary begins by mis-labeling the "No Action Alternative" as it is not a "No Action Plan" but continued training as usual.*

*At the least the U.S. Navy must not expand and adopt "Alternative 1 or 2". Additionally the training must not take place within the Olympic Coast National Marine Sanctuary.*

*A search for "best available science" needs to be included even when it proves harm can come from standard operational procedures. Comments from the Orca Network need to be implemented and addressed. Comments from the National Resources Defense Council and organizations signing on to their comments need to be taken into consideration, investigated and recommendation adopted.*

**Volume 1 p. 3.6-1 Not in the Glossary but buried with the text of the EIS/OEIS draft was found the definition of "littoral zone".** As being: "near shore habitats that includes: islets, headlands, rocky inter-tidal areas, bottom-dwelling algae (e.g., kelp forests), sea grass beds, soft substrate, estuarine and coastal salt marsh wetland, fjords and beaches. Mid-littoral beach is alternately submerged and exposed for moderate periods of time. In other words the NWTRC Study Area from within Puget Sound and south to California includes and "takes" all beaches and coastal salt march wetlands as would be DESIRED TO USE by the Naval Command. Tourists, residents, seed gatherers, clam diggers and fishermen could be restricted from their usual and accustomed shore line beaches. This could produce economic harm to multiple communities in all states on the West Coast.

Alternative 2 is the Navy's preferred alternative because it would fully support the type and frequency of activities it believes are required to achieve complete Fleet readiness and allow the U.S. Navy to carry out its mission in the Pacific Northwest. RDT&E activities in the NWTRC are comprised primarily of unmanned aerial system (UAS) and underwater vehicle system activities.

Alternative 2 includes all elements of Alternative 1, plus:

Increase the level of training activities over levels identified in Alternative 1; and Implement range enhancements, including: new air and sea surface targets; new electronic signal emitters; development of a small-scale underwater training minefield, and development of a portable undersea tracking range.

But missing in this Alternative is the ability of the Navy to maintain the long-term viability of the range complex while protecting human health and the environment not to mention the viability of fifty-one species of threatened or endangered salmon, aquatic species and marine mammals.

Acknowledge that the Navy is not equipped with the properly trained personnel capable of detecting multi-species who do not want to be detected. This is especially true when conducting training war games with multiple vessels, sonars and disrupted waters.

Make a commitment to further train sonar specialists to be able to detect the very elusive endangered marine species. Do not rely on high-frequency sonar technology to find marine mammals until independent researchers have determined its ability or not to harm the marine mammals in seeking to protect them.

#### Volume I: Hazardous Materials 3.3

P 3.3-14 Bomb and expended ordnance on the ocean floor would be “widely scattered” and have negligible adverse impacts and possibly some slight benefits.

*To average the dispersion through out the whole NW Training Range does not make logical sense. To make the statement that “possibly some slight benefits” from bomb or expended ordnance – flies in the face of logic.*

3.3.15 Missile’s solid propellant releasing ..... ammonium perchlorate, potassium hydroxide, lithium chloride and other hazardous materials ..... are expected to rapidly disperse .... that local concentration will be extremely low ....

*Are assumptions that low concentrations will not harm those species exposed to them in their natural habitat? I could not find within the references any, or especially “best available scientific studies” to back up the above claim. To average the dispersion through out the whole NW Training Range without the missiles releasing these chemicals evenly throughout the entire range is not a credible statement.*

*Marine Mammals are immersed in this now toxic habitat, some consuming krill filter huge amounts of sea water through their consumption body parts.*

*All aquatic life bio-accumulates up the food chain. I saw no references regarding the possible bonding or absorption or not of these toxic materials to algae, krill or shrimp.*

3.3.17 ..... molybdenum, titanium, tungsten or vanadium linked with the assumption that these toxic metals “will eventually oxidize ..... into benign by-products .....

*Is an assumption not backed up with long term testing in comparable circumstances? No references could be found citing studies proving these heavy particles will ..... “eventually oxidize...into benign by-products”.*

**Depleted Uranium:** 20-mm cannon shells of depleted uranium, their fragments and nano particles created when exploded are no where dealt with in the entire 1,068 pages. Claiming the depleted means the ordnance is only 60% as radioactive as uranium misses the entire point. Exploding DU weapons creates a nano particle poison gas that is carried on the wind inflicting rapid forming cancers in multiple organ systems in a very short amount of time one body at a time. These would widely disperse within the marine

environment and then work their way up the food chain to human consumption aquatic species.

*This would hold true for birds, like the ones in Afghanistan sitting on a wire that all fell to their deaths with blood flowing out every orifice after exposure to DU’s explosive poison gas cloud. Unless the bird deaths were from a detonated nuclear bomb that a “boots on the ground” veteran witnessed both in Afghanistan and Iraq. The Bunker Buster Nukes used in Afghanistan were encased in DU. As to whether it was the poison gas from exploded DU or the radioactive cloud from a nuclear weapon encased in DU that impacted and killed birds and humans can not be known by this writer. Afghani walking away from the explosion also had blood pouring from every orifice and died shortly there after according to witnesses with boots on the ground in our military.*

*See [www.willthomasonline.net/investigations](http://www.willthomasonline.net/investigations) - “US Veteran with Boots on the Ground Witnessed.....”. And see also referenced studies in “Experts in DU Radiation” submitted with these comments.*

#### Volume 2: References 8

p. 8-4: Reference cited is 35 years old – Hanson, W.C. 1974. Ecological Considerations of Depleted Uranium Munitions. Report LA-5559 Los Alamos Scientific Laboratory..... did not deal with the nanoparticles that are created from the explosions of DU munitions. My references of credentialed experts accompany these comments in document called “Experts Reports of Findings on DU.....”

*The only other reference cited on Depleted Uranium was: “Toque, C. 2006. Marine Environmental Depleted Uranium Survey Report ..... Gosport, UK”*

p 8-50 “Goertner, J.F. 1982. Prediction of underwater explosion safe ranges for sea mammals..... It is hard to image that munitions have not been changed or improved in 27 years. I would think that the Naval Surface Weapons Center would have more recent studies. If so then why was it that this study was referenced?”

p 8-56 “Kryter, K.D. W.D. Ward, J.D. Miller and D.H. Eldredge. 1966. Hazardous exposure to intermittent and steady-state noise. .... Forty-three years there isn’t there a more recent study on this topic?”

p 8-87 “Hickie, B.E., R.W. Macdonald, J.K. B. Ford and P.S. Ross, 2007. ‘Killer whales (orcas) face protracted health risk associated with lifetime exposure to PCBs,’ Environmental Science and Technology, 41(18):6613-9,” *Using Depleted Uranium with a half life of 40 million years will enable uncountable marine lives to have lifetime (however shortened by the process) exposure when moving through or living near by wherever the U.S. Navy decides to use and leave on the ocean floor those fragments of radioactive weapons. Nanoparticles dispersion will greatly expand the radioactive areas of the marine environment. See references in “Experts in Radiation....”*

3.3.18 **Underwater Targets.** Airborne and surface emitting magnetic or acoustic signals used in training do not mention the decibels, range or potential harm to marine mammals.

3.3.19 Repeated at the end of multiple paragraphs: ..... appeared to be minimal and had no detectable effect on wildlife or sediment quality cites no “scientific studies” over time to prove these repeated assumptions as valid.

- 3.3.20 Torpedoes. Under the No Action Alternative .....this will have no measurable impact on the PACNW OPAREA environment. *No statement is made regarding the "Preferred Alternative" and the impact than increased use and exposure would have.*
- 3.3.21 ....potentially toxic battery constituents with USEPA water quality criteria .... for protection of aquatic life or "best available literature" .....can not be exceeded once every three years. *The preferred alternative would not limit exposure to one battery expended every three years. This is an omission as it is not stated how this limit would be overcome.*
- 3.3.22 3.3.23 Explosive Sonobuoys – Potential Impacts of Detonation Byproducts ....in the water, the charges explode, creating aloud acoustic signal. *No decibel readings or range of sound is mentioned thus omission claims no harm when in fact there very well could be. When a 4 # bomb of whatever source exploded underwater near NSA Whidbey 5,000 fish floating on top plus up to 20,000 that had fallen to the bottom were killed and a law suit was filed. This fish kill was witnessed. How many are not? No mention of potentially massive fish kills can be found within these pages. Is it that there are no computer codes to record such events?*
- 3.3.23 3.3.23 – 25 *Again with underwater detonations of C-4 there is no measurement of the acoustic signal or of the number of fish or marine mammals that would swim through these regions in the five hours that these exercises take to complete. There was no mention and probably no computer input code for reporting dead fish or marine mammals sighted during or after the exercises are complete for the day in the report filed under "test results".*  
(Governor/President Bush's No Child Left Behind achieved a no drop out rate because the computer code to record "drop outs" was eliminated.)
- 3.3.24 3.3.26 \_27 Aviation Fuel and Other Propellants ....fuel (dumped over water west of NAS Whidbey) ....dissipates in the air. ....small number of incidents.....neither .....have an measurable impact on the environment. *Downwind of this air dissipation the breast cancer rate in San Juan County is the highest of any County in Washington State. Even the Counties closest to Hanford had less. What could be in the air that could cause this.....jet exhaust, fuel dumped more than a few times or maybe exhaust from ships burning bunker diesel fuel?*
- 3.3.25 3.3.28 .29 .30 Bombs, Missiles, Naval Gunfire, Targets and Countermeasures, Torpedoes and Small Caliber Rounds A repeated phrase....."this increase would not have a measurable impact on the environment." *This statement is contrary to reality. Yet again, no mention of the acoustic byproduct on the resident aquatic life of firing and exploding these weapons ordnances are mentioned.*

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- 3.3.26 3.3-31 Underwater Detonations *It is good news that the Navy will be relocating this process to Imperial Beach, CA from the near shore of Island and Jefferson County but not good news for marine life off of Imperial Beach. Implications for acoustic harm to marine life from underwater detonations in Imperial Beach, CA are not spoken too nor addressed in the No Action Alternative let alone in the Preferred Alternative.*
- 3.3.27 3.3-32 -37 *Repeated....."will have no impact on the environment from bomb, missiles, etc....." is not backed up with scientific proof of remarks and assumptions. Again no mention of the acoustical impact on marine life.*

*Through out the Hazardous Material sections there is an assumption that the toxic materials expended in exploding ordnances will have "no measurable impact of the environment" is not back up with any proof. Instead the Navy takes a particle and averages it dispersal against the whole area when in fact it is not dispersed throughout the whole 122,440 square nautical miles of the NWRRC.*

**Volume 1: 3.9 Marine Mammals**

page 3.9-2 "There are 32 species of marine mammals known to occur in the NWTRC Study Area (Table 3.9-1). *Again the "magic math" or "voodoo math" that has 0.00055 of one whale per squared km is not how reality presents itself. Whales and other marine species travel in "pods" and "schools" and occupy concentrated areas that are always moving. The "J" pod of Southern Resident Orcas do not spread throughout the 122,400 squared nautical miles- nm (420,163) square kilometers km of the PACNW OPAREA as shown within the EIS/OEIS draft.*

3.9 -17: "Federal Agencies (i.e. U.S. Navy) must consult with NMFS to ensure actions will not destroy or adversely modify the Killer Whales (*Orca*) Habitat. Critical habitat means a more focused analysis on how the action would alter the habitat and how it will affect ability of habitat to support the populations conservation."

Critical habitat designation encompasses parts of Haro Strait, waters around the San Juan Islands, the Strait of Juan de Fuca and all of Puget Sound – a total of just over 6,475 km squared .... excluded are 18 military sites covering 290 km squared of the designated area.

*How will you warn the marine mammals to not trespass in these 18 "salt water island's of harm"? Who will you warn Endangered Species to not use their usual and historic marine areas now that the Navy wants to use them to train to kill with weapons of war?*

**Volume 1 Fish 3.7**

3.7-16 *ESA Salmon runs overlap from mid May through late October.*

*Whales follow and feed on salmon, especially ESA listed Chinook salmon. Thus most of NWTRC would be a kill zone for Endangered Species.*

*Will training be suspended in the areas (all must pass Whidbey Island) where known salmon runs are?*

Mitigation Measures, Page 5-23: "Limiting training activities to fewer than 12 months .... would not meet .... readiness requirement of Navy's mandate."

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(Document 3 of 4 TmkG)

Experts Report Findings on Radioactive Depleted Uranium:  
Doctor reports, scientific findings truth censored by US Military.  
Abstract of articles assembled by Theresa Marie K. Gandhi

DU's exploded small particle size and crystalline structure make the presence of DU dust in the environment such an extreme hazard. This differentiates its properties from that of the natural uranium dust that is ubiquitous and to which we all are exposed every day, which seldom reaches such a small size. This point is being stressed, as comparing DU particles to much larger natural ones is misleading.

Marine Mammals ingest large amounts of salt water in one form or another. Nanoparticles of exploded DU weapons in salt water have not been tested and most likely would be absorbed into various organ systems as has been documented to humans in the following reports of studies conducted by radiation experts.

The military promotes the misleading results from large sized uranium studies.

NWTRC draft EIS/OEIS thirty-five year old reference was not conducted on the explosive nanoparticles of current DU weapons. "Hanson, W.C. 1974 Ecological Considerations of Depleted Uranium Munitions. Report LA-5559. Los Alamos Scientific Laboratory of the University of California. Los Alamos, N.M." Using this reference combined with the experts reports to follow does not inspire trust in the only other DU reference: "Toque, C. 2006. Marine Environmental Depleted Uranium Survey Report – Kirkcudbright Training Area – 2004, Environmental Sciences Department, Institute of Naval Medicine. Gosport, UK" – volume 2, page 8-5.

Marion Fulk, former scientist with the Manhattan Project and nuclear physical chemist at the National [nuclear weapons] Laboratory at Livermore, California. "Internalized DU particles, Fulk said, act as 'a non-specific catalyst' in both 'nuclear and non-nuclear' ways. This means that the uranium particle can affect human DNA and RNA because of both its chemical and radiological properties. This is why internalized DU particles cause 'many, many diseases,' this is how DU causes severe birth defects". Fulk said.

According to Falk, more than 30 percent of the DU fired from the cannons of U.S. tanks is reduced to particles one-tenth of a micron (one millionth of a meter) in size or smaller on impact. "The larger the bang" the greater the amount of DU that is dispersed into the atmosphere, Falk said. With the larger missiles and bombs, nearly 100 percent of the DU is reduced to radioactive dust particles of the "micron size" or smaller, he said. Bombs with DU, i.e. dirty bombs are the perfect weapons for killing lots of people

Dr. Asaf Durakovic, then Professor of Radiology and Nuclear Medicine at Georgetown University in Washington was quoted as saying, "The [US government's] Veterans Administration asked me to lie about the risks of incorporating depleted uranium in the human body." In 1997 he cited experiments, by others, in which 84 percent of dogs exposed to inhaled uranium died of cancer of the lungs.

At that time Dr. Durakovic was a colonel in the U.S. Army. He has since left the military, to found the Uranium Medical Research Center, a privately funded organization with headquarters in Canada. (Note about Dr. Durakovic; first, he was warned to stop his work, then he was fired from his position, then his house was ransacked, and he has also reported receiving death threats. Evidently the U.S. D.O.D is very keen on censoring DU whistle-blowers!)

Diagnostic distinction was shown between natural uranium and DU using the technique of Thermal Ionization Mass Spectrometry – TIMS. Dr. Durakovic, UMRC research associates Patricia Horan and Leonard Dietz, published a unique study in the August 2002 issue of Military Medicine Medical Journal. The study is believed to be the first to look at inhaled DU among Gulf War veterans, using the ultra-sensitive technique of thermal ionization mass spectrometry, which enabled them to easily distinguish between natural uranium and DU. The study, which examined British, Canadian and U.S. veterans, all suffering typical Gulf War Syndrome ailments, found that, nine years after the war, 14 of 27 veterans studied had DU in their urine. DU also was found in the lung and bone of a deceased Gulf War veteran. That no governmental study has been done on inhaled DU "amounts to a massive malpractice," Dietz said in an interview.

Ross B. Mirkarimi, a spokesman at The Arms Control Research Centre stated: "Unborn children of the region are being asked to pay the highest price, the integrity of their DNA." "The depleted uranium left by the U.S. bombing campaign has turned Iraq into a cancer-infested country. For hundreds of years to come, the effects of the uranium will continue to wreak havoc on Iraq and its surrounding areas."

A 2001 study of DU's effect on DNA done by Dr. Alexandra C. Miller for the Armed Forces Radiobiology Research Institute in Bethesda, Md., indicates that DU's chemical instability causes 1 million times more genetic damage than would be expected from its radiation effect alone. It should be noted that her studies shows that DU is "neoplastically transforming and genotoxic" are based on *in vitro* cellular research.

British toxico-pathologist Vyvyan Howard has reported that the increased toxicity of the nanoparticle is due to its size. A University of Rochester study exposed nano-particles of Teflon for 15 minutes in mice nearly all died within 4 hours.

Leuren Moret is Past President of the Association for Women Geoscientists, has a background in the Geosciences. Has conducted extensive scientific research on atmospheric dust, the transport and cycling of radionuclides through the environment and through biological systems. She is recognized as an international expert, on the impact on global public health and the health of the environment, from radiation caused by atmospheric testing, nuclear power plants and depleted uranium.

"Exposure pathways for depleted uranium can be through the skin, by inhalation, and ingestion," Leuren Moret wrote. "Nano-particles have high mobility and can easily enter the body. Inhalation of nano-particles of depleted uranium is the most hazardous exposure, because the particles pass through the lung-blood barrier directly into the blood.

"When inhaled through the nose, nano-particles can cross the olfactory bulb directly into the brain through the blood brain barrier, where they migrate all through the brain," she wrote. "Many Gulf era soldiers exposed to depleted uranium have been diagnosed with brain tumors, brain damage and impaired thought processes. Uranium can interfere with the mitochondria, which provide energy for the nerve processes, and transmittal of the nerve signal across synapses in the brain. "Damage to the mitochondria, which provide all energy to the cells and nerves, can cause chronic fatigue syndrome, Lou Gehrig's disease, Parkinson's disease and Hodgkin's disease."

#### THREE EFFECTS OF DEPLETED URANIUM INTERNAL EXPOSURE

1. Chemical – changes in a substance due to an alteration of its chemical composition caused by changes in its atoms or molecules;
2. Radiological – changes when the nucleus of an isotope undergoes disintegration and releases energy in the form of alpha or beta particles and/or gamma rays. About 30% of radiation damage to cells is caused by the "bullet effect" of the alpha and beta particles tearing through the cells. About 70% of the damage is caused by changes in the cells and biological molecules from the energy dissipated along the pathway of the alpha and beta particles and gamma rays;
3. Particulate – changes caused by the particle size, the most harmful being nano-particles which are defined as particles with a diameter of 0.1 micron and smaller.

The "particulate effect" of exploded Depleted Uranium creates gas and dust, formed on the battlefield. This produces large numbers of extremely fine particles. The greatest number by mass on the battlefield is formed in the nano-particle range – 0.1 microns and smaller (1). There is a particulate effect caused by these nano-particles in living tissues. There are now 16 peer-reviewed journals devoted to the new field of nano-technology.

Dr. Helen Caldicott "the two Gulf wars have been nuclear wars because they have scattered nuclear material across the land, and people—particularly children— are condemned to die of malignancy and congenital disease essentially for eternity." Because of the extremely long half-life of uranium 238, one of the radioactive elements in the shells fired, "the food, the air, and the water in the cradle of civilization have been forever contaminated," Dr. Caldicott explained.

Doug Rokke, formerly the top U.S. Army DU clean-up officer and now anti-DU crusader, says Israeli tankers fired radioactive shells during the invasion of Lebanon last year. U.S. and NATO forces also used DU ammunition in Kosovo. Rokke says he is quite ill from the effects of DU and that members of his clean-up crew have died from it.

Dr. Keith Baverstock, The World Health Organization's chief expert on radiation and health for 11 years and author of an unpublished study has charged that his report "on the cancer risk to civilians in Iraq from breathing uranium contaminated dust was deliberately suppressed. Dr. Keith Baverstock informed the media; Iraq's arid climate would increase exposure from its tiny particles as they are blown about and inhaled by the civilian population for years to come.

As a special advisor to the World Health Organization, the United Nations, and the Iraqi Ministry of Health, Dr. Ahmad Hardan has documented the effects of DU in Iraq between 1991 and 2002. "American forces admit to using over 300 tons of DU weapons in 1991. The actual figure is closer to 800. This has caused a health crisis that has affected almost a third of a million people.

As if that was not enough, America went on and used 200 tons more in Baghdad alone during the recent invasion. With over 250,000 Nagasaki bombs used that works out to over one million pounds of radioactive dust scattered throughout Iraq.

Dr. Hardan also states: "I arranged for a delegation from Japan's Hiroshima Hospital to come and share their expertise in the radiological diseases we are likely to face over time. The delegation told me the Americans had objected and they decided not to come. Similarly, a world famous German cancer specialist agreed to come, only to be told later that he would not be given permission to enter Iraq."

**Not only are we poisoning the people of Iraq and Afghanistan, but we are making a concerted effort to keep out specialists from other countries that can help. The U.S. Military doesn't want the rest of the world to find out what we have done.**

The Japanese began studying DU effects in southern Iraq in the summer of 2003. They had a Geiger counter which they watched go off the scale on many occasions. During their visit, a local hospital was treating upwards of 600 children per day, many of which suffered symptoms of internal poisoning by radiation. 600 children per day? How many of these children will get cancer and suffer an early and painful death?

Dr. Yuko Fujita, an assistant professor at Keio University, Japan who examined the effects of radioactivity in Iraq from May to June, 2003, said: "I doubt that Iraq is fabricating data because in fact there are many children suffering from leukemia in hospitals," Fujita said. "As a result of the Iraq wars, the situation will be even more desperate starting in five to 10 years and beyond."

The March 14, 2004 Tokyo Citizen's Tribunal that "convicted" President Bush of war crimes gave the following summation regarding DU weapons: (This court was a citizen's court with no binding legal authority)

1. Their use has indiscriminate effects;
2. Their use is out of proportion with the pursuit of military objectives;
3. Their use adversely affects the environment in a widespread, long term and severe manner;
4. Their use causes superfluous injury and unnecessary suffering. (To enemies, civilians, troops and American weapons makers.)

Chalmers Johnson, president of the Japan Policy Research Institute, writes in his "The Sorrows of Empire"(Henry Holt and Co.) that, given the abnormal clusters of childhood cancers and deformities in Iraq as well as Kosovo, the evidence points "toward a significant role for DU."

"Ingested DU particles can cause up to 1000 times the damage of an X-ray", said Mary Olson, a nuclear waste specialist and biologist at the Nuclear Information and Resource Service in Washington D.C.

Dr. Alim Yacoub of Basra University conducted an epidemiological study into incidences of malignancies in children under fifteen years old, in the Basra area (an area bombed with DU during the first Gulf War). They found over the 1990 to 1999 period, there was a 242% rise. That was before the recent invasion.

In the fall of 2002, the Uranium Medical Research Center -UMRC field team went back to Afghanistan for a broader survey, and revealed a potentially larger exposure than initially anticipated. Approximately 30% of those interviewed in the affected areas displayed symptoms of radiation sickness. New born babies were among those displaying symptoms, with village elders reporting that over 25% of the infants were inexplicably ill. In Afghanistan, unlike Iraq, UMRC lab results indicated high concentrations of Non-depleted Uranium, with the concentrations being much higher than in DU victims from Iraq. Afghanistan was used as a testing ground for a new generation of "bunker buster" bombs containing high concentrations of other uranium alloys.

It appears that by going after a handful of terrorists in Afghanistan we have poisoned a huge number of innocent civilians, with a disproportionate number of them being children.

The Pentagon/Department of Defense have interfered with UMRC's ability to have its studies published by managing, a progressive and persistent misinformation program in the press against UMRC, and through the use of its control of science research grants to refute UMRC's scientific findings and destroy the reputation of UMRC's scientific staff, physicians and laboratories. UMRC is the first independent research organization to find Depleted Uranium in the bodies of US, UK and Canadian Gulf War I veterans and has subsequently, following Operation Iraqi Freedom, found Depleted Uranium in the water, soils and atmosphere of Iraq as well as biological samples donated by Iraqi civilians. Yet the first thing that comes up on Internet searches are these supposed "studies repeatedly showing DU to be harmless." The technique is to approach the story as a debate between government and independent experts in which public interest is stimulated by polarizing the issues rather than telling the scientific and medical truth. The issues are systematically confused and misinformed by government, UN regulatory agencies (WHO, UNEP, IAEA, CDC, DOE, etc) and defense sector (military and the weapons developers and manufacturers).

In Kosovo, similar spikes in cancer and birth defects were noticed by numerous international experts, although the quantity of DU weapons used was only a small fraction of what was used in Iraq.

#### Conclusions

If terrorists succeeded in spreading something throughout the U.S. that ended up causing hundreds of thousands of cancer cases and birth defects over a period of many years, they would be guilty of a crime against humanity that far surpasses the Sept. 11th attacks in scope and severity. Although not deliberate, with our military campaigns in Iraq and Afghanistan, we have done just that. If the physical environment is so unsafe and unhealthy that one cannot safely breathe, then the outer trappings of democracy have little meaning. At least under Saddam, the Iraqi people could stay healthy and conceive normal children. Few Americans are aware that in getting rid of Saddam, we left something much worse in his place.

Depleted uranium (DU) weaponry meets the definition of weapon of mass destruction in two out of three categories under U.S. Federal Code Title 50 Chapter 40 Section 2302.

DU weaponry violates all international treaties and agreements, Hague and Geneva war conventions, the 1925 Geneva gas protocol, U.S. laws and U.S. military law. By insisting on its use, Johnson adds, "the military is deliberately flouting a 1996 United Nations resolution that classifies DU ammunition as an illegal weapon of mass destruction."

By insisting on its use, Chalmers Johnson, president of the Japan Policy Research Institute said, "the military is deliberately flouting a 1996 United Nations resolution that classifies DU ammunition as an illegal weapon of mass destruction."

Terry Jemison at the U.S. Department of Veterans Affairs stated in August 2004 that over 518,000 Gulf-era veterans (14-year period) are now on medical disability, and that 7,039 were wounded on the battlefield in that same period. Over 500,000 U.S. veterans are homeless. In some studies of soldiers who had normal babies before the war, 67 percent of the post-war babies are born with severe birth defects - missing brains, eyes, organs, legs and arms, and blood diseases.

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Cancer starts with one alpha particle under the right conditions. One gram of DU is the size of a period in this sentence and releases 12,000 alpha particles per second.

"How Depleted Uranium (war debris) could cause cancer." Source: [http://www.pharmacychoice.com/news/article.cfm?Article\\_ID+93531](http://www.pharmacychoice.com/news/article.cfm?Article_ID+93531) on [www.GulfWarVets.org](http://www.GulfWarVets.org) web site.

"Depleted Uranium: Pernicious Killer Keeps on Killing" by Graig Etchison, Ph.D. [http://www.truthout.org/docs\\_2006/021907G.shtml](http://www.truthout.org/docs_2006/021907G.shtml). Also on [www.GulfWarVets.org](http://www.GulfWarVets.org) web site.

What we can do to halt the use of genocidal DU weapons.

Because DU weapons violate the 1925 Geneva Protocol that prohibits "the use in war of asphyxiating, poisonous or other gases and of all analogous liquids, material or devices". DU weapons in nano-particle form are a "poisonous gas".

Francis Boyle, Professor of International Law at the University of Illinois and author of The Criminality of Nuclear Deterrence thinks so. He has launched a campaign for a global pact against uranium weapons. The Government of France is the official depository for the 1925 Geneva Protocol. Boyle contends every state submit a letter to the French government to enforce a ban. "All that needs to be done is for anti-DU citizens, activists and NGO's in every country to pressure their Foreign Minister to write to their French counterpart, drawing attention to the "Protocol for the Prohibition of the use in War of Asphyxiating, Poisonous or Other Gases and of Bacteriological Methods of Warfare", of 17th June 1925, prohibiting uses as above. The letter should add that this Protocol is believed to: "already prohibit the use in war of depleted uranium ammunition, uranium Armour plate and all other uranium weapons". Belgium, last month, outlawed uranium weapons.

A request should be made that the letter is circulated to all other High Contracting Parties to the 1925 Protocol and addressed to: His Excellency, The Foreign Minister, Republic of France, 37, Quai d'Orsay, 75351 Paris, France. Or Fax: 33-1-43-17-4275

1. "Characteristics of Particles and Particle Dispersoids", HANDBOOK OF CHEMISTRY AND PHYSICS 53rd Edition (1961). <http://www.mindfully.org/Nucs/Particle-Dispersoids-TableSep61.htm>

USA weapons designed, manufacture and sold to Israel two new categories of genocidal weapons. Hundreds of children have lost their legs and soon after their lives from:

DIME bombs-Dense Inert Metal Explosives: are genotoxic, 100% carcinogenic bomb, developed and manufactured by the USA. The undetectable shrapnel from this highly-developed explosive attacks the immune system, and causes thousands of amputations, which only stave off the spread of cancer in its victims for 4 to 6 months. In other words, while the fighting may end with a death count of several hundred, months later the numbers will be ten times higher, when the focus is no longer Israel's attacks on Gaza. Essentially, with the tax dollar support and assistance from the United States, Israel is committing genocide and so are we.

White phosphorous was used in Lebanon and Gaza and made in the USA for Israel. The burns, blackish in color, reached deep into the muscles and bones. Even after treatment was begun, the blackish color returned. When autopsies were done, reports showed that the cause of death was poisoning from elements of white phosphorous that had entered their systems, causing

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(Document 4 of 4 TmkG)

## Marine Mammal Deaths and U.S. Naval Hubris

Abstract of articles assembled by and comments by Theresa Marie K. Gandhi.

The U.S. Navy is being sued for exploding ordinance in Puget Sound waters near NSA Whidbey, allegedly killing thousands of fish and potentially harming federally protected species such as Chinook salmon, Stellar sea lions, humpback whales and bull trout filed in U.S. District Court in Seattle on July 29, 2008 by Public Employees for Environmental Responsibility (PEER) and the Wild Fish Conservancy. "Juvenile salmon and the food web of Puget Sound would be much better protected if the Navy would simply take the measures suggested by the government's own scientists," said Kurt Beardslee, executive director of Wild Fish Conservancy.

LOS ANGELES (August 12, 2008) – The U.S. Navy's use of low and mid-frequency active sonar will remain restricted to certain military training areas of the Pacific Ocean, according to an agreement approved by a U.S. district court in San Francisco today. The comprehensive agreement between the Navy and conservation organizations follows a court injunction issued early this year against the Navy's Surveillance Towed Array Sensor System Low Frequency Active (LFA) sonar system, which blasts vast areas of ocean with harmful levels of underwater noise. In that decision, the court agreed with a coalition of organizations, led by the Natural Resources Defense Council (NRDC), that the Navy's proposed LFA deployment in more than 70 percent of the world's oceans was illegal. A separate lawsuit challenging the U.S. Navy's use of mid-frequency active sonar is currently under consideration in the U.S. Supreme Court.

"We don't have to choose between national security and protecting the environment," said Michael Jasny, senior policy analyst with NRDC. "Today's agreement maintains the Navy's ability to test and train, while shielding whales and other vulnerable species from harmful underwater noise."

Under the agreement, LFA testing and training is limited to defined areas of the North Pacific Ocean, and the Navy must adhere to other protective measures, including seasonal and coastal exclusions that will protect breeding grounds and other important whale habitat.

In Hawaii, for example, LFA training cannot occur near the Hawaii Humpback Whale National Marine Sanctuary or the Papahānaumokuākea Marine National Monument, and is limited to waters beyond 50 nautical miles of the main islands, an area known to contain vital habitat for several unique marine mammal populations.

LFA sonar relies on extremely loud, low-frequency sound to detect submarines at great distances. According to the Navy's own studies, the LFA system generates noise intense enough to significantly disrupt whale behavior more than 300 miles away. Scientists have observed that, under certain oceanic conditions, sound from a single LFA system could be detected across entire oceans.

"Limiting sonar use in breeding grounds and other key habitat areas is essential for the conservation of whales, dolphins, and other marine mammals," said Naomi Rose, Ph.D., marine mammal scientist for The Humane Society of the United States (HSUS). "This agreement protects both national security and our most treasured natural resources."

The lawsuit asserted that a permit issued last year by the National Marine Fisheries Service, allowing deployment of the sonar system around the world, violated a number of federal laws including the Marine Mammal Protection Act and the National Environmental Policy Act. The district court agreed, noting in particular that the government had failed to protect marine life with adequate mitigation measures as required by law. In 2002, this same court held a prior permit unlawful, after which NRDC and the U.S. Navy entered into a negotiated agreement that restricted LFA training from important habitat until last year's permit was issued.

The coalition consists of the Natural Resources Defense Council, International Fund for Animal Welfare, The Humane Society of the United States, Cetacean Society International, League for Coastal Protection, and Ocean Futures Society and its president and founder Jean-Michel Cousteau.

The military employs two types of active sonar: mid-frequency and low-frequency. Low-frequency sonar travels enormous distances in seawater. During testing off the California coast, noise from SURTASS LFA, the Navy's main low-frequency system, was detected across the breadth of the North Pacific. By the Navy's own estimates, even 300 miles from the source these sonic waves can retain an intensity of 140 decibels -- a hundred times more intense than the level known to alter the behavior of large whales. Mid-frequency sonar is more widely used and has been associated with mortalities of whales.

But stranded whales are only the most visible symptom of a problem affecting much larger numbers of marine lives. In the darkness of the ocean, marine mammals and many fish rely on sound to follow migratory routes, to locate each other over great distances, to find food, to breed and to care for their young. Naval sonar has been shown to disrupt feeding and other vital behavior and to cause a wide range of species to panic and flee. Scientists are concerned about the cumulative effect of all of these impacts on populations of animals.

Numerous mass stranding events and whale deaths across the globe have been linked to military sonar use.

October 1989: At least 20 whales of three species strand during naval exercises near the Canary Islands.

December 1991: Two Cuvier's beaked whales strand during naval exercises near the Canary Islands.

The Canary Islands authorities have asked NATO to halt a naval exercise in the area, fearing it may be responsible for the death of 17 whales washed up on the coast of Fuerteventura and Lanzarote this week. NATO participants included the US frigate De Wert, which specializes in anti-submarine warfare.

May 1996: Twelve Cuvier's beaked whales strand on the west coast of Greece as NATO ships sweep the area with low- and mid-frequency active sonar.

October 1999: Four beaked whales strand in the U.S. Virgin Islands during Navy maneuvers offshore.

May 2000: A beaked whale strands in Vieques as naval exercises are about to begin offshore.

May 2000: Three beaked whales strand on the beaches of Madeira during NATO naval exercises near shore.

March 2000: 13 beaked whales that stranded in the Bahamas in after exposure to active sonar, seven died.

April 2002: A beaked whale and a humpback whale strand near Vieques during an offshore battle group training exercise.

September 2002: At least 14 beaked whales from three different species strand in the Canary Islands during an anti-submarine warfare exercise in the area. Four additional beaked whales strand over the next several days.

May 2003: As many as 11 harbor porpoises beached along the shores of the Haro Strait,

Washington State, as the USS Shoup tests its mid-frequency sonar system.

June 2004: As many as six beaked whales strand during a Navy sonar training exercise off Alaska.

July 2004: Four beaked whales strand during naval exercises near the Canary Islands.

January 2005: At least 34 whales of three species strand along the Outer Banks of North Carolina as Navy sonar training goes on offshore.

2008: A federal court prohibits the Navy from conducting major mid-frequency sonar exercises in California without safety measures in place and rejects a White House bid to excuse the Navy from environmental compliance. The Navy petitions to appeal the decision and the case will go before the U.S. Supreme Court during fall 2008.

2008: A federal court limits the regions where low-frequency sonar may be used and deemed certain species-rich areas, such as the Galapagos Islands and the Great Barrier Reef, off-limits.

2006: Two years after an earlier exercise caused the stranding of 200 whales in Hanalei Bay, a federal court halts sonar use during the Navy's massive Rim of the Pacific (RIMPAC) exercise off Hawaii. The Navy agrees to additional mitigation to remove the injunction.

2006: After years of pressure from NRDC, the Navy begins to conduct environmental reviews and seek permits for mid-frequency sonar training off the U.S. coasts. The first review, for a proposed training range off North Carolina, is so heavily criticized that the Navy takes the unusual step of withdrawing it and starting from scratch.

2005: An NRDC-led coalition sues the Navy in U.S. federal court after years of attempts at constructive dialogue could not convince the Navy to take common-sense precautions during peacetime training with mid-frequency sonar.

2004: Responding to NRDC and other groups, a suite of intergovernmental bodies begins to take action on sonar. The European Parliament calls on its 25 member states to stop deploying active sonar without more information about the harm to whales and other marine life. ACCOBAMS, a European agreement for marine mammals, commits to develop guidelines for sonar and other noise-producing activities in the Mediterranean and Black seas. The World Conservation Congress of the World Conservation Union calls for international action.

2003: NRDC wins a major victory when a federal court rules illegal the Navy's plan to deploy low-frequency sonar through 75 percent of the world's oceans. The Navy agrees to limit use of the system to a fraction of the area originally proposed, and that use of low-frequency sonar will be guided by negotiated geographical limits and seasonal exclusions. Ongoing NRDC campaigns have made strides toward requiring the Navy to use proper safeguards when employing sonar.

**Naval Sonar Experts Know it Kills Marine Mammals:  
Secures Exception to law to Kill, i.e., Take Marine Mammals within Sanctuaries!**

July 2002 Surtass LFA was authorized for US naval use, despite having been responsible for the mass death of whales in the Mediterranean and off the Bahamas. Surtass LFA transmits signals as powerful as 215 decibels; a whale's eardrums can explode at 180 decibels. US navy says its use is vital in helping to detect super-quiet submarines.

Since 2002, the National Marine Fisheries Service and the U.S. Fish and Wildlife Service, the two civilian agencies charged with enforcing the Endangered Species Act, have urged the Navy to undertake alternative training practices to minimize damage to marine life, such as using bubble curtains or other containers to minimize blast impacts, or conducting the training in quarries, lakes or the open ocean rather than in the waters of Puget Sound.

**Navy Requests LOA for Keyport Range Complex Extension**

On July 3, 2008, the U.S. National Marine Fisheries Service provided public notice that

the U.S. Navy has applied to NMFS for a five-year Letter of Authorization -LOA for the incidental harassment of marine mammals incidental to the research, development, test, and evaluation (RDT&E) activities within the NAVSEA NUWC Keyport Range Complex Extension. The Navy wants the LOA to cover the period September 2009 through April 2014. If granted, the LOA would be issued under the Marine Mammal Protection Act.

The Navy's application further explains that "the mission activities conducted within the Naval Sea Systems Command (NAVSEA) Naval Undersea Warfare Center (NUWC) Keyport Range Complex and the associated proposed extensions that could result in Level B harassment and possibly Level A harassment."

There are between 700 and 4,000 stranding events per year. Adding the stress of Surtass LFA that transmits signals as powerful as 215 decibels when a whale's eardrums can explode at 180 decibels. And Navy Sonar Experts reporting that marine mammals can hear these transmissions over 300 miles away the number of stranding events will raise and extinction will come faster. The justification for the probable extinction of multiple marine species is that the US navy says its use is vital in helping to detect super-quiet submarines.

**This technology could mean the end of whales in our oceans in our lifetime.**

Another issue not addressed within the draft EIS/OEIS NWTRC is the effect on the magnetic fields, magma and geological faults within a geologically active region. Repeated undersea sonic pulses from 20 # bombs and frequency penetration could unzip a huge volcanic ridge off the west coast from Vancouver Island south to Oregon.

Sound pulses fired into a similar Indonesian volcanic ridge for oil exploration unleashed the 2004 Tsunami.

**January 26, 2009**

Mrs. Kimberly KlerNWTRC EIS/OEIS  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203,  
Silverdale, WA 98315-1101

**Re: Northwest Training Range Complex Draft Environmental Impact Statement**

**A. An extension of the comment period is needed** on grounds the website to submit comments was non-functional during more than half of the comment period. The Navy's principal mechanism for public information and input about the EIS, their website: ( [www.nwtrangecomplexeis.com/EIS.aspx](http://www.nwtrangecomplexeis.com/EIS.aspx)), was seriously compromised between the Dec. 29, 08 inception of the EIS Public Response Period and Jan. 21.

Attempts to make comments via the website were not allowed due to "abort issue" (Navy's term) from Dec 29 until Jan. 20. The website was not accessible whatsoever between Jan 15 and Jan 21. This represents 51% of the comment time frame and is a breach of process established by the Navy.

We contest the Navy's breach of their own EIS comment process and respectfully request an extension of at least one month.

**B.** Due to the decline in numerous marine species and the lack of information available to assess the impacts of the Navy's proposed expansion on those species, especially with proposed testing of new systems and inadequate marine mammal monitoring, a "**No Action Alternative**" is the preferred option.

**C.** Prior to supporting any expansion of training activities the Navy needs to **fund independent research on the seasonal presence of marine fish, birds and mammals** found within their training ranges rather than rely on outdated surveys.

**D.** The Navy needs to provide the **public access to non-classified ambient acoustic information** in their training ranges to confirm compliance with their operations.

**E.** The Navy needs to demonstrate a means to **respond to environmental consequences of a maritime incident** in all their operating areas including interactions between their ships and commercial vessels.

**F.** We have been involved in observing and researching several species of cetaceans since 1981. We are well acquainted with the difficulty of recognizing brief sightings or faint acoustic signals. In our judgment the mitigation measures detailed in this EIS are not sufficient to reliably identify the presence of cetaceans in most instances.

Recognition of marine mammals at sea either by sight or by sound is highly problematic even for experienced personnel. The Navy should improve the mitigation measures to include **training of monitoring personnel by experienced whale biologists** to improve recognition of marine mammals by visual and acoustic monitoring. Recognizing acoustic calls is difficult for most

species in calm conditions. Currently proposed monitoring by inexperienced personnel is not likely to be effective even in normal sea-state conditions due to the difficulty of recognizing brief visual or acoustic cues. These exercises would take place in the midst of multiple ships and high-powered and explosive sonars and munitions, often making recognition impossible. Training monitors with visual and audio examples interpreted by experienced cetacean observers would improve reliability.

Even with the best monitoring by experienced people, the mitigation measures are inadequate. It's usually difficult to reliably detect marine mammals underwater or in rough weather, even more so when compounded by training conditions.

**G.** The **long-term** challenge is to dial down the need for these training exercises altogether, which is a problem of international relations and diplomacy. President Obama and Sec. of State Clinton can prevent this danger to marine life by fostering improved international communications and reducing hostilities.



Howard Garrett  
Susan Berta  
Orca Network  
2403 North Bluff Road  
Greenbank WA 98253  
[howard@orcaneetwork.org](mailto:howard@orcaneetwork.org)  
360-678-3451

Naval Facilities Engineering Command Northwest,  
1101 Tautog Circle, Suite 203  
Silverdale, Washington 98315  
Att: Ms. Kimberly Kier – NWTRC EIS

Re: Against Naval Warfare Testing Program Expansion

March 29, 2009

Dear Ms. Kier:

The United States Navy requests permissions from the United States Department of Commerce (NOAA), to kill thirty two species of marine mammals over five years in their Pacific Ocean Warfare testing program. The expansion of their area of operation will include the State of Washington, the State of Oregon, part of the state of Idaho, and Northern California. The final date for public comment is April 13, 2009.

These designated areas will also include large areas of the Pacific Ocean from California to the State of Washington and areas along the border between the United States and Canada. Once implemented there is no date specified in E.I.S. for this Navy Warfare Testing Program to end although various documents show that this is a five-year Navy Warfare Testing program.

The United States Navy has also published an application, as an addendum to their program, in the U.S. Federal Register, dated March 11, 2009. This application from the Navy "... requests authorization to take individuals of 32 species of marine mammals during upcoming Navy Warfare testing and training to be conducted in the NWTR areas off the Pacific coasts of Washington, Oregon, and northern California over the course of 5 years."

The Navy Warfare Testing Program will "...utilize mid- and high frequency active sonar sources and explosive detonations. These sonar and explosive sources will be utilized during Antisubmarine Warfare (ASW) Tracking Exercises, Mine Avoidance Training, Extended Echo Ranging and Improved Extended Echo Ranging (EER/IEER) events, Missile Exercises, Gunnery Exercises, Bombing Exercises, Sinking Exercises, and Mine Warfare Training..."

The Pacific and Atlantic Ocean belong to all the people of the world not just the United States. This "taking" of marine mammals negatively impacts the entire ecology of our oceans and the life in them which feeds large numbers of people and other species around the world. Now the United States government has decided that California, Oregon, Washington, and Idaho, and the Pacific Ocean marine life in those areas, are expendable in order to test more war weapons of mass destruction. It should be noted that the list of

**NO NEED FOR REPLY  
SAVE RESOURCES**

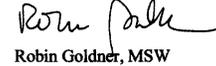
toxic chemicals is a long one as noted in the Navy E.I.S. Depleted uranium, red and white phosphorus, and a whole host of chemicals known to be toxic not only to man, but to marine life, are being served up on the "Navy Warfare Chemical Menu" that will contaminate our air, water, and soil.

White Phosphorus is just one of the chemicals on Navy Toxic Menu: Berkowitz et.al (1981), in assessing the potential hazards associated with the use of phosphorus smoke munitions, reported that White Phosphorus residues in aquatic systems can be extremely toxic. Berkowitz stated that the deposition of washout of... White Phosphorus, especially in water bodies may create exposure risks to resident finfish, invertebrates and waterfowl, even if resultant White Phosphorus concentrations are in the low ppb range. 1996)

The ocean areas off the coast of Northern California are not a suitable venue for the use of chemical tests, nor is it efficacious to test live ammunition, explosions of aerial or underwater ordnance. Aquatic mammals, fish, invertebrates and birds are resident and migratory animals in these waters that likely will be negatively impacted. Furthermore, the possible resulting damage to downwind human population seems highly suspect and may be the subject of future litigation.

I therefore implore you to not expand the Navy's test areas.

Yours truly



Robin Goldner, MSW

Cc: NOAA Public Comments

Mendocino Board of Supervisors

**From:** [Murray, Sheila A CIV CNRNW, N00P](mailto:Murray, Sheila A CIV CNRNW, N00P)  
**To:** ["dangoldstein@yahoo.com"](mailto:dangoldstein@yahoo.com);  
**Subject:** RE: Comment on Navy EIS  
**Date:** Sunday, March 08, 2009 13:25:59

---

Good afternoon Mr. Goldstein. I sure will. Thanks for taking the time to comment on the Northwest Training Range Complex EIS. Respectfully, Sheila Murray

Sheila Murray  
NAVMAG/Environmental Public Affairs  
1100 Hunley Rd.  
Silverdale, WA 98315  
(360)396-4981- (360)340-5398(c)  
-----Original Message-----

From: Dan Goldstein [<mailto:dangoldstein@yahoo.com>]  
Sent: Sunday, March 08, 2009 13:15  
To: Murray, Sheila A CIV CNRNW, N00P  
Subject: Comment on Navy EIS

I have heard there might be a problem with the website. If so, could you make sure that this comment is recorded?

Thank you

Dan Goldstein

Comment on Navy EIS on Expansion of activities in the Northwest Training range Submitted to <http://www.nwtrangecomplexeis.com/NtrcCommentForm.aspx>

The proposed expansion of the Northwest Training Range is unwarranted due to its excessive impacts on the Puget Sound and coastal waters. The EIS does not address the actual impacts associated with a large increase in explosions and ammunition expended. For this reason I would oppose any increase in activities in the training range. In fact, I would seriously question whether the current level of military action (training, explosions, use of ammunition and toxic materials) is warranted.

The EIS makes reference to the "taking" of marine mammals but gives no details of how many mammals would be killed or injured. It is not clear that anybody knows the extent of the damage, either from current levels or the

proposed expansion. As you know, orcas in the north Puget Sound area and coastal waters have been declining in population lately. It is known that underwater explosions and sonar such as are proposed can damage their echolocation and be dangerous to them.

Increases of explosions in Port Townsend Bay are a concern because the bay is a relatively small area that sees a lot of civilian uses. The potential for accidents is thus increased, especially with the increases proposed. The Navy solution of ever increasing restricted areas is not a good solution because much of the civilian traffic consists of unregulated small pleasure boats who are not necessarily up to date on exactly where they are allowed to go. Aside from a blanket assurance that all will be well, there is no analysis of how the increased activities will impact the environment, including sensitive shoreline areas, shellfish, salmon. There has been no serious study of the cumulative impact of the expansion of Naval Magazine Indian Island over the past few years. This proposal represents yet another increase in activity that has significantly increased environmental impacts without a comprehensive study.

I am concerned with these issues, not only in Port Townsend Bay, but throughout the Training Range. There are numerous sensitive areas and marine sanctuaries in the affected area, all of which would be affected. The Navy is proposing an increase in the use of toxic materials in these sensitive waters without any serious analysis. Uranium munitions pose an unstudied toxic threat to marine life both due to the toxic chemical properties of uranium and the low level but extremely persistent radioactivity. When small particles are absorbed into living organisms the point source radioactivity within the organism have effects that have not been fully studied but which appear to be quite damaging. Tungsten or DIME weapons also contain toxic materials with potentially damaging effects on the environment that are not addressed in the EIS.

The Navy, and the US military in general, have not been good environmental stewards. They have generated many superfund sites over the years, including some within this area. At a time when the environment is increasingly at peril, the Navy must join in with all of us in making sure that its activities are safe and environmentally responsible. The plan for this area should be rethought and thoroughly studied to find ways to avoid further environmental degradation.



U. S. Navy  
Northwest Training Range Complex EIS/OEIS

**Disturbing the Peace**

Comments concerning Very High Noise Conditions  
in approach corridor to runway 7 -25 at NASWI

By

Richard F. Haines, Ph.D.

The U. S. Navy has requested comments to its application to change its Annual Level of Activities within the Northwest Region. Specific details of these proposed changes are found in

[www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)

All comments must be received **no later than February 18, 2009** either by e-mail or regular mail.

Send regular comments by mail to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle  
Suite 203  
Silverdale, WA 98315-1101  
Attn. Mrs. Kimberly Kler, NWTRC EIS

My family and I live very nearly under the approach path to east of NASWI runway 7 - 25 on Whidbey Island and have done so for about five years. The noise level associated with certain high performance jet airplanes is excessive and definitely disturbs our peace.

The Navy refers to both people and selected places as "sensitive receptors."

"Sensitive receptors are those noise-sensitive areas, including developed and undeveloped areas for land uses such as residences, businesses, schools, churches, libraries, hospitals, and parks. Military personnel are not considered to be sensitive receptors of airborne noise for purposes of environmental impact analysis...(Page 3.5-13 "Acoustic Environment")

We civilians are sensitive receptors even though the many active military personnel in this area are not defined as such! Indeed, when one or two EA-6B jets are flying overhead to

takeoff and land and we are outside our home, normal speech is impossible for about 30 - 60

seconds each time. All conversation comes to a complete stop. Those with hearing impairments must cover their ears for fear of possible neural damage. And even when I am indoors, after-dark, these same jet aircraft keep me awake, sometimes well after midnight. The spacing between aircraft during intense training and operational periods is approximately one flyby every forty-five seconds (sometimes longer). As far as some of my neighbors and I are concerned this jet noise constitutes a disturbance of the peace that would not be tolerated in the civilian community.

The above-cited Environmental Impact Study (EIS) is a long and complex report containing many facts. One of them pertains primarily to all residents living within the higher noise contours established by the EA-6B and EA-18G jet aircraft that takeoff and land at the air station.

The official noise contour for these runways is given in Figure 3.5-3 of the Environmental Impact Statement cited above and dated December 2008. This diagram shows dB levels as high as 75 or more (depending on various factors). As is well known, the high noise level of the Grumman EA-6B aircraft is worst with other high performance jet aircraft being somewhat less noisy. I can readily tolerate the P-3 as well as the B737 noise levels. Sometimes the EA-6B jet flying on auto-throttle will produce significantly louder noises than the published 75 dB.

Fact. A substantial increase in planned takeoffs and landings is being proposed. Reference to Table 2-9 "Current and Proposed Annual Level of Activities" on Pp. 35 - 37 of this EIS provide the following numbers. Only numbers of sorties made by the very noisy EA-6B, EA-18G, FA-18, and F-16 jet aircraft are cited here and are combined into one number per type of range activity. Other aircraft types are of little concern.

Range Activity	No Action Alternative	Alternative 1	Alternative 2
Anti-Air Warfare	1,353	2,000	2,000
Anti-Surface Warfare	2,724	3,000	3,000
Support Activities	94	100	100
Total =	4,171	5,100	5,100
Avg. per day*	11.4	13.9	13.9
No. per day (weekdays only)+	13.1	16	16
Percent increase over "no action"	-----	22%	22%

\* Assumes 365 days per year.

+ Assumes 317 days per year

If one sortie consists of one takeoff and one full-stop landing per aircraft the above numbers would not be particularly bad. However, during carrier qualification training especially, particularly after dark, each aircraft makes more than one approach, sometimes up

to six or more. On several nights I recorded over seventy five almost consecutive EA-6B

flybys that continued as late as midnight. I have noticed that on some days and nights there are a significantly larger number of fly-overs than the above daily average would account for.

If even 25 percent of the above proposed total *increased* (929) sorties involves six (ea.) approaches and takeoffs there will be an additional 1,393 flybys or another 4.3 per day on the average!

Isn't there any way that the total number of takeoffs and landings at NASWI can be reduced, as long as these very noisy jets continue to be used?

It is assumed that all of the proposed jet sorties in this EIS will originate at NASWI. However, the number of sorties given in the above table that will potentially fly over any given area on north Whidbey Island will be determined by wind direction and velocity (i.e., runway assignment). In calm wind conditions why can't ATC direct these aircraft to runway 14 - 32 on a fifty-fifty percent basis so that this excessive noise can be redistributed a little?

I look forward to your response to the above questions and, of course, corrections to my calculations if they are needed.

Very sincerely,

  
Richard F. Haines  
arc1@att.net

**RICHARD HAINES**  
839 SHORECREST DR.  
OAK HARBOR, WA 98277

cc: files  
Senator M. Cantwell  
Senator P. Murray  
M. M. Waller, Esq.

**PETITION TO STOP THE PROPOSED NAVY WARFARE TESTING PROGRAM EXPANSION & THE KILLING OF 32 SPECIES OF MARINE MAMMALS OVER 5 YEARS IN THE PACIFIC OCEAN**

Whereas, a wide variety of marine mammals have already died due to Navy Warfare Testing of Weapons currently underway in the Hawaiian Islands, the Mariana Islands, the Pacific Ocean off the coastline of Oregon, Washington, Southern California, and other areas where testing is now conducted in both the Pacific and Atlantic oceans;

Whereas, the Navy proposes to expand its NWT Range Complex warfare testing range to encompass more land areas of Oregon, Washington, Idaho, California and the Pacific Ocean; (<http://www.nwtrangecomplexeis.com/Documents.aspx> Navy Environmental Impact Statement)

Whereas, many chemicals, like white phosphorus, used in this program are toxic to humans, marine mammals, all wildlife, and birds; Whereas, the Navy has violated NEPA laws by not informing the majority of the citizens of the United States about this program;

Whereas, the Navy admits that there are severe declines in some marine mammal populations;

**Whereas, the Navy will "take", harm, maim or kill approximately 2.3 million marine mammals per year over five years;**

Whereas, the Navy will disrupt the fishing and whaling tourist industry near some of their weapons test areas in the Pacific Ocean;

Whereas, there are sensitive marine areas in the Pacific Ocean which need to be preserved and protected;

Whereas, airborne sky obscurants like toxic fog oils, red phosphorus, white phosphorus (which is toxic to both humans and marine life), and other military test chemicals can drift and contaminate ocean and land areas;

Whereas, bomb blasts in the Pacific Ocean, and sonic booms over land areas could trigger earthquakes (sonic booms have caused damage to homes in the past, in California and other states);

Therefore, we the undersigned, demand that our local, county, state and federal representatives take immediate action to stop the Navy

warfare testing expansion in the Pacific Ocean, Idaho, Washington, Oregon, and California, and the "taking" of marine mammals.

Act Today-Navy E.I.S. Public Comment Deadline is April 13, 2009. <http://www.nwtrangecomplexeis.com/NTRCCommentForm.aspx>

We further demand that NOAA, the National Marine Fisheries Service, and the U.S. Department of Commerce stop any attempts by the Navy to take a kill main of harmful marine mammals in the Pacific Ocean.

Act Today - NOAA Public Comment Deadline is April 13, 2009. <http://www.nwtrangecomplexeis.com/NTRCCommentForm.aspx>

Printed Name: \_\_\_\_\_ Contact Address: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

United States Navy  
Public Hearing Comment Form  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: Christina Haley

Organization/Affiliation: "NONE"

Address: P.O. Box 1161 - Laytonville, Calif

City, State, Zip Code: 95454 (Mendocino County)

Comments:

It is my opinion, the U.S. GOV AND its military should stop ALL Training AND testing in the "NWTRC" that HAS A Negative Impact on the MARINE WILDLIFE AND ENVIRONMENT of this AREA. The "SONAR" USED IN this AREA AND how it affects whales AND other MARINE MAMMALS IS A CRIME AGAINST God AND NATURE. It is A Cruel WAY for such MAJESTIC AND ENDANGERED life To Be Killed. Thank you  
Christina Haley

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

(707) ~~984~~  
349-3912

March 13, 2009

Mrs. Kimberly Kler (NWTRC EIS/OE/S)  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315 1101

Dear Ms. Kler,

I am sorry to read that the United States is thinking of expanding training activities into northern Admiralty Inlet and eastern Straight of Juan de Fuca as well as off the coast. I hope this idea will be dropped and the No Action Alternative will be chosen.

As a avid boater I am aware of the extensive population of marine mammals that use these waters, both in the summer and winter. I am well acquainted with these waters. Homeland Security should not be used as a reason to further threaten our marine mammals. As you know the orcas are already struggling to survive in Puget Sound. They regularly use these waters, as do gray whales, humpbacks, etc. The plan does not adequately cover detection of these mammals during all kinds of weather and conditions. A fin may be seen too late if at all.

Many of us believe rather than to open up killing more whales, we should face our security issues by being a less aggressive, warring country. It seems like that is what President Obama is trying to do. This is the solution to Homeland Security.

Sincerely,

Martha Hall

Martha Hall  
2617 16th St  
Anacortes, WA 98221

kingfish@fidalgo.net

cc. President Obama

**United States Navy  
Public Hearing Comment Form  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement**



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

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Naval Facilities Engineering Command Northwest  
1101 Taftog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kier - NWTRC EIS

Please check the box if  
you would like to receive a CD  
copy of the Final EIS/OEIS.  
Provide your mailing address  
below

All comments must be received no later than March 11, 2008, to be considered in the Final EIS/OEIS.

Name: Ed and MaryEllen Hanks \_\_\_\_\_

Organization/Affiliation: Visioning America \_\_\_\_\_

Address:\* 7185 Ollala Cyn. Rd. \_\_\_\_\_

City, State, Zip Code: Cashmere, WA. 98815 \_\_\_\_\_

Comments: We are very concerned that the prevailing winds will carry unknown toxic material onto our crop land and create many medical problems for our future generations. We all know the results of the Hanford tests and being downwinders get very nervous of any testing the Navy plans to do on this Training range complex..

Please consider moving these tests away from our coast lines. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
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Please reduce  
military training in  
all pacific ocean waters.

Thankyou for listening,

But M

July 10, 2007

Attn: Mrs. Kimberly Kler  
Naval Facilities

You write to request that Navy  
do not extend its sonar tests  
westward. The California  
is by off coast & reduce  
sonar testing altogether.

Sincerely,

Anne Hanson

407 Landa Dr.

Santa Barbara, CA  
93105-2656

To the Naval Facilities Engineering Command NW  
1101 Tautog Circle, suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

March 11, 2009

Dear Mrs. Kler:

I live in Fort Bragg on the California north coast. I oppose the navy extending its training area along our coast. I urge you to prevent all government or private business interests from taking claim to any aspect of the ocean environment along the Northwest Pacific Coast.

The Fort Bragg/Mendocino area is a favorite tourist destination. People who visit our area come for the beautiful ocean views, the walks along the seaside bluffs, the fresh air and the quiet. We fear that the sight of naval vessels on the ocean, the sight and sound of overhead aircraft would destroy the appeal our economy depends on.

The nearly pristine ocean waters off the Northwest Coast of California, Oregon and Washington Northwest Pacific waters are perhaps one of the more environmentally intact ocean ecosystems that we have left in the world. No one should be granted the right to pollute ocean waters and inevitably harm creatures that dwell in coastal and pelagic waters. Organizations sometimes think they have a mandate, their over-riding rationale convince them that their actions are valid. Please don't let the health of the ocean be a tradeoff for the creation of new jobs or the testing of new weapons.

I am sure that you are aware that the giant kelp forests of the Northwest Pacific are home to myriad wonderful sea creatures. The grey whale makes its yearly travels between feeding and breeding grounds through the coastal waters of the Northwest Pacific. Besides pollution by chemical contaminants in the water and in whales' food sources from increased naval presence, the impacts of sonar testing are known to harm whale species. If for no other reason, don't add further negative pressure to the world's threatened fish populations by allowing the U.S. Navy to carry out this dreadful plan.

We understand that the Navy proposes to comply with all the federal rules and regulations. But can they guarantee that they will have no impact whatsoever on marine life, noise levels, and visual effects?

Those of us who live here love the ocean and the ocean life; we love the unspoiled landscapes, the quiet, and the exquisite views. We love to see the whales and the shore birds, to examine the tide pools, and to watch the sunset from the ocean bluffs.

We worry that the training will negatively affect our own lives as well as the economy, the local marine life, and the calm and peacefulness of our coastline.

Please do not conduct Naval training off of our coast.

Signed:

Anne Hanson - 29893 Madsen Ln., Ft. Bragg

cc: Congressman Mike Thompson, Fort Bragg City Council, Mendocino County Bd. of Supervisors

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Please do not conduct Naval training off of our coast.

Signed:

*Ann S. Ardes - 29893 Madsen Ln., Ft. Bragg*

cc: Congressman Mike Thompson, Fort Bragg City Council, Mendocino County Bd. of Supervisors

MEMO February 13, 2009

TO; Naval Facilities Engineering Command Northwest  
Attn: Mrs. Kimberly Kler

FROM: Char Helgesen, a concerned coastal citizen

With all due respect I submit my protest. It is incredible how the passage of time changes formerly responsible government agencies like the U. S. Navy into experimenters who appear to care little about polluting our oceans. When I was in my twenties the Navy protected our nation from harm and was highly respected. How can this be the same agency that plans to interfere with fisherman trying to make a living, poison part of our food chain, kill off marine life, and leave bombs, missiles, and God-knows what chemically leaking debris in our beautiful Pacific Ocean off the Oregon and Washington coasts.

Third graders and middle-school students that I taught were urged to do what they could to protect our environment. They cleaned up beaches in the Puget Sound and ocean areas in the State of Washington and were taught not to disturb any marine life on our field trips. Along comes the Navy, with its planned training exercises and contradicts all efforts by teachers to urge students to help save ocean environments.

I urge the Navy to go back to the drawing board and come up with a much safer project that does not endanger our food chain and marine life with needless pollution that will take years to dissipate in the ocean. Just how can you possibly predict what will happen to ocean life in the future after depositing all the debris, you plan to leave there? We could have cancer-infected shell fish, or mutations and distortions of diseased fish species. Many of us fear also for the needless pain and damage that could be caused to the magnificent whale families.

\*\*\*\*\* Don't forget the atomic bomb tests in the Nevada desert a few years ago. The Air Force said "Not to worry, our scientists are perfectly safe". Most of them died a few years later of brain cancer, including my fiancé.

Steve Heller  
Bayhill Garden  
445 Paradise Road  
Lopez Island, WA  
98261

3/06/09

## Navy to extend comment period by one more week

By PATRICK ALEXANDER  
For the Headlight-Herald

The U.S. Navy has agreed to give the public an extra week to comment on the environmental impact of expanded training activities off the Oregon Coast, shifting the deadline to Feb. 18.

The extension falls short of the 60 days requested by U.S. Rep. Kurt Schrader, who raised concerns after a recent feedback meeting in Newport only attracted about 40 people.

The Navy is seeking comment on a draft environmental impact statement (EIS) that runs more than 1,000 pages, detailing the anticipated impact of an expansion of training activities in its Northwest Training Range Complex.

The complex runs from northern Washington to northern California, taking in all of Oregon's territorial waters and extending 257 nautical miles into the Pacific Ocean.

The draft EIS outlines the environmental impact of two expansion alternatives, both of which would lead to increased use of sonar and result in more spent ordnance, including shells, bombs and missiles, being left in the ocean.

The Navy's preferred alternative would also see physical enhancements to the range, including a small dummy underwater minefield.

The document compares these alternatives with a "no action" option, which would leave current training levels unchanged.

Sheila Murray, environmental public affairs officer

most likely to affect the fishing industry rather than coastal residents.

"People who live inland or along the coast really are not going to see any difference," she said. "What you are going to see tomorrow."

Lincoln County Commissioner Terry Thompson said the Navy's representatives at the Jan. 30 meeting were "first-class individuals" who were willing to listen to the fishing industry's concerns.

Among those concerns are snagging risks posed by spent ordnance, abandoned equipment anchors and the potential dummy minefield, for which no location has yet been set.

The Navy's preferred alternative would increase the number of missiles used from 10 to 57, shells from 25,856 to 43,343, and bullets from 59,724 to 119,720. The draft EIS says a small amount of the ammunition used might remain depleted ordnance.

"We are making major efforts to try and clean up marine debris," Thompson said. "Now, all of a sudden, we find out they are going to fire a bunch of rockets into the ocean."

The Navy has said the increase in spent ordnance must be considered in the context of the vast area covered by the training complex.

Concerns have also been raised about the Navy's desire to increase the use of sonar, the majority of which would depend upon the construction of the dummy minefield.

According to the draft EIS, the Navy's preferred alterna-

son exposure incidents involving marine mammals from 106,807 to 128,583.

The document says sonar can cause behavioral shifts in marine mammals as well as temporary or, in extreme cases, permanent hearing loss.

Dr. Bruce Mate, director of the Marine Mammal Institute at Hatfield Marine Science Center, said the Navy's need to keep operational details secret makes it difficult to assess the sonar risk to particular species.

"Normally, you would ask 'who, where and when?'" he said. "We can't identify the 'who,' which is the species that will be at risk, unless we know where and when."

Mate said some scientists believe sonar can frighten beaked whales, causing them to flee to the surface without properly decompressing, risking death from a version of the bends.

The Navy's preferred alternative would also see an increase in air-combat training, which would include the use of live missiles.

However, it appears these exercises would be confined to waters off the Washington coast, with the local flight-warning area, which runs from Newport to Astoria, primarily used for surveillance training.

The draft EIS can be downloaded from [www.nwrangecomplex.com](http://www.nwrangecomplex.com).

Feedback can be submitted online or by mail to Naval Facilities Engineering Command, Attention: AEC, Mr. Kimberly Kler, 2 NWTRC Bldg., 1101 Taug Circle, Suite 208, Silverdale, WA 98315.

Dear Navy Personnel -

I would like to say the Navy is terrific... a brilliant, highly trained group of extraordinary human beings. You serve to keep our country safe.

However if there is any way to minimize the flights over the San Juan Islands please do so. We love on Lopez. We are Farmers, Animal Raisers, nature lovers and Artists. We would appreciate that you respect our desire for quiet and minimal jet flights over our region.

If there is any way to not increase flights please respect us.

If for the safety of our country you need to fly over us I understand. Safety is important and a high priority. But if there is anyway to not increase the flights that is our preference.

Thanks, Respectfully,  
Steve Heller + Family

Comments on the  
Northwest Training  
Range Complex  
EIS

To all of you who are set on using  
the "Living Ocean" as a test ground:

I beg you to "STOP" - It is  
impossible for me to understand  
how in this day and age with  
all of the research and what  
has been learned from the  
past - That MY tax paying  
dollars are being spent  
for something that will harm  
the very life force of the Ocean!

Mary Ellen Hill  
12060 Rockwood Rd  
Mendocino, CA 95468

2-13-09

Attn: Mr. Kennedy

Re: Environmental Impact Statement  
Original regarding the  
relocation of Cal/CR/WT  
Coast

I am opposed to any expansion  
of Navy activities  
on the OR coast.

Why the people don't want  
Sona drilling, other  
activities that will  
endanger marine  
mammals. I am opposing the way

Stop all activities. Generally!  
Dory Mills

PO Box  
5655  
Astoria, OR  
97103

Comments on the DEIS/OEIS.

The DEIS/OEIS & the way in which the Navy has chosen to present it, are fatally flawed both substantively and procedurally. Because of these serious & irremediable flaws, the DEIS/OEIS is inadequate. It fails NEPA's and the Navy's own regulatory standards for providing a document in which, "environmental issues are **fully considered** (emphasis added) and incorporated into the Federal decision making process." 32 CFR 775.3(b).

Procedural issues:

The notice for both of the open houses/public hearings, in Newport, Oregon, and Tillamook, Oregon, was inadequate.

The notices supplied by the Navy or KATZ & Associates for the Newport meeting were in small print<sup>1</sup> and placed in the ad sections of the few local papers who received the "notice" of the first hearing. Whoever was responsible for placing these ads either ignorantly or negligently failed to pay whatever extra fee is required to place an ad in both the print and online version of the local newspaper, thus significantly decreasing the number of readers who had opportunity to perhaps notice that small ad with all the fine print, read it and receive actual notice of the Navy's open house/hearing in Newport.

The Navy spokesperson alleged that the notice issue had been resolved when providing notice for the meeting in Tillamook (56 papers were allegedly sent notices). However, Charlotte Mills, Lincoln county activist, telephoned 16 of Oregon's coastal newspapers to discover if they had received a Navy press release or ad regarding the Tillamook meeting on February 26<sup>th</sup>. According to Ms. Mills, six of those sixteen papers, or over 25%, received neither notice nor ad. Of the remaining ten, most were, because of their weekly publishing schedule, able to offer only same day or one day notice. Only one coastal paper, the Newport News-Times, was able to publish the notice six days before the hearing, on February 20<sup>th</sup>. Unfortunately, Newport is more than 80 miles away from Tillamook, thus few Tillamook residents read the News-Times. The Navy spokesperson stated that notice had been sent to the Oregonian. This commenter reads the online version of the Oregonian (Oregonlive.com) daily, and saw no such notice. It would again appear that neither Navy personnel nor KATZ & Associates, cared enough to ask any of these newspapers if extra payment was required for the ad or notice to be carried in the online as well as the paper version. Such carelessness is inexcusable.

Clearly, the Navy personnel responsible, or the Navy's unnamed contractors, were unwilling or unable to do even a minimal amount of basic research on the internet. Had they bothered to do so, they would've discovered they had to get the (very flawed) notices/any press releases, issued much sooner than they were, for the small coastal weeklies to have time to publish the press releases, and fit the fine print ads into their weekly (or perhaps biweekly) paper editions. Again, without additional payment, nothing classified as an ad would appear in an online version, again greatly decreasing the number of people who could be afforded "notice"

<sup>1</sup>As result of the Navy's response to a FOIA request filed by Carol Van Strum, it is my understanding that the stupidly small print, etc., was mandated by the Navy for reasons as yet unstated, See, Navy's Statement of Work.

through a fine print ad/notice in a local paper.

A similar sloppiness characterized the distribution of the single hard/paper copy of the DEIS/OEIS which the Navy felt was adequate for the entire portion of the Oregon population who lack broadband and/or the time to repeatedly visit a website that worked only randomly and sometimes. For the Newport meeting, the single paper copy of the DEIS/OEIS was sent to the Driftwood public library in Lincoln City, Oregon, or not to the nearest public libraries, but to a library over 25 miles away from the meeting site. In addition, there was no documentation mailed with the hard copy to inform the librarian of why the 1000+page document should be placed where members of the public could easily see & review it.

Neither the Navy nor KATZ & Associates seemed to have learned anything from their prior mistakes, because for the Tillamook meeting, all that changed was the type of sloppy error.

A hard copy was, amazingly, sent to Tillamook, but the cover letter was addressed to the public library in Newport, and the Tillamook librarian, confused by the cover letter, and apparently unaware of the upcoming meeting, sent the hard copy over 80 miles away from the meeting site, to the Newport library. The librarian's action provides additional evidence that the Navy's notice of the 2<sup>nd</sup> open house/meeting was just as ineffective & inadequate as that for the first meeting. Had notice been adequate, the librarian would've been aware of the date and location of the second open house/public hearing and thus realized the cover letter was a mistake.

No third open house/public hearing was at a location on the southern coast of Oregon. This omission is an inexplicable failure to offer residents and property owners on the south coast to have the same, if similarly limited, opportunity as north coast residents to discuss the DEIS/OEIS with Navy representatives or simply have the existence of the DEIS/OEIS brought to their attention. The Navy has offered no explanation for why it chose to shut out south coast fishermen, residents, federal employees, state employees, resort owners and vacation and agricultural property owners. The south coast has productive fishing grounds, uniquely and exceptionally beautiful state parks, wonderful beaches, expensive resorts, a substantial tourist industry, a state university research facility, several ports, at least one proposed marine reserve and a tidal energy project area. All of these landscapes, activities and projects could be reasonably expected to be significantly affected by any of the Navy's proposed "alternative actions" yet the Navy unilaterally determined that residents & businesspeople on the southern coast of Oregon weren't entitled to an opportunity to learn more about the DEIS or to present oral comments to representatives of the Navy. Of the 16 coast newspapers Charlotte Mills contacted, 8 were south coast newspapers. Of those newspapers, 4 or 50% reported they had received neither the ad nor the press release. The remaining 50% had received one or the other, often so late that, as weeklies, they could publish the ad only a day before or on the day of the Tillamook meeting. Thus, for a south coast resident to attend the second meeting would have required that resident(s) to be have such a flexible or empty schedule that he/she could decide, on a day's notice, to make a 400+ mile roundtrip. That, apparently, is what the Navy and KATZ & Associates consider to be providing adequate notice and opportunity to comment.

Substantive issues:

No prior EA or EIS for this range or area has ever been issued. However, the DEIS/OEIS indicates that there is a current level of training activity occurring in nearshore/offshore waters, seafloor & airspace near & above Oregon. Yet NEPA was passed in the 1970's, and the Navy's own regulations implementing NEPA require that, at a minimum, an EA must be done to

determine whether not Navy activities have a "significant impact" on the natural or human environment. Why has the Navy neglected to perform the level of environmental analysis of the effects of its current activities that NEPA requires and has required since the early 1970's?

At some point after NEPA was passed, the Navy must necessarily have increased or otherwise altered its activities in the area that is now titled the Northwest Training Range Complex that the need for an EA developed. However, even a FOIA request that specifically requested copies of any EA or FONSI or any other documents that might be thought to have complied with the evaluative requirements of NEPA has met with: no response. No documents. No prior EA, no prior EIS. This lack represents a major violation of the requirements for environmental impact evaluation mandated by NEPA. This apparently comprehensive & absolute violation of NEPA must be remedied before the Navy can conclude it has complied with NEPA's requirements through the publication of this DEIS.

If the current DEIS is not withdrawn pending publication of an EA or EIS evaluating the environmental impacts of the Navy's current level of training activity throughout the entire NW range, then the Navy will have transformed NEPA into a discretionary, rather than mandated, process of environmental impact analysis. Upon reading NEPA, I found no provision that authorizes the Navy to do so and in fact, the Navy's own regulations, require that an EA or EIS be performed even if the data used and the EA/EIS itself will be classified information and therefore unavailable to the public & many other interested persons. It is my understanding that federal agencies, such as the Navy, are required to follow their own rules.

Without full NEPA analysis of the Navy's current level of activities, there is no way for any interested person, government official, elected representative, marine science researcher, or fishermen to consider the environmental impact of one of the "alternatives" presented in this DEIS, that of the mis-named "no action alternative." Thus, the Navy has violated the requirements of NEPA in several different ways: (1) failure to comply with NEPA regarding Naval training activities in NW training range complex area, i.e., apparently no prior Eas or EISs were ever performed since passage of NEPA; (2) failure to provide NEPA required analysis of current level of activities, thus making an informed analysis of the environmental impact of one of the alternatives ostensibly analysed in this DEIS. The "no action alternative", impossible.

Since such a NEPA/Navy-regulation-required study has never (apparently) been performed, the current DEIS should be withdrawn and not presented, and no "enhanced activities" go forward, until the Navy has, at a minimum, prepared & presented for public comment an EA evaluating the effects of current levels of activity. To do otherwise is to violate NEPA and the Navy's own regulations. It is my understanding that agencies are legally required to follow their own rules.

This DEIS/OEIS is fatally flawed & inadequate on an unknown number of grounds. I say unknown because the two issues on which I did spend time reviewing the relevant sections, revealed a breathtaking (or heart breaking, depending on your point of view) lack of peer-reviewed published scientific research upon which the Navy bases its conclusions. In one of those subject matters, a simple google search reveals a plethora of research that provides ample evidence of a finding that not only does not support the Navy's conclusion of "no significant impact" but directly contradicts the Navy's assertion.

The Navy has not complied with the requirements of NEPA. In this DEIS, the Navy has signally failed to, "utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision-making which may have an impact on man's environment", 42 USC 4332 (1)(A).

Instead, the Navy has refused to consider recognized & very accessible scientific data regarding the potential effects on the ecology of the several marine environments (bay, estuarine, nearshore, deep water/ocean) of its use & effective dumping of ordnance containing chromium, tungsten, lead, and mercury. In addition, the Navy fails to indicate the short term and long term effects of its current level of activity, but also fails to effectively & analytically evaluate the potential short and long term effects of either its "Proposed Action" or either of the proposed alternative actions. After reading the Executive Summary, reviewers are left wondering just what the DEIS is evaluating: the environmental & humans effects of a mysterious "Proposed Action" or one of the three Alternative Actions that, in the Executive Summary, are described primarily in various tables inserted into the Summary. What is this "Proposed Action"? The Executive Summary mentions it frequently, but supposedly, the DEIS/OEIS purports to analyze the environmental impacts of three "alternative" actions.

Surely the Navy has the time and personnel to review--effectively-- the document produced by its contractors to determine if the document is consistent throughout. However, the DEIS does not even list: (1) the contracting corporations responsible for the majority of the preparation of this DEIS; (2) the qualifications of those employees of the contractors who did the work and whatever scientific analysis, research of the existing relevant research literature and analysis that should (under NEPA) have been performed in producing this Draft EIS., let alone the qualifications of the Navy personnel who ostensibly carefully reviewed this document.

Why should I--or anyone else--find credible a document that is required to: "a detailed statement by the responsible official on- (I) the environmental impact of the proposed action, (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented . . . when only 2 irrelevant, non-peer reviewed articles are cited to support the document's conclusions, and the qualification of those producing the DEIS are not provided.

Based on my review of the DEIS/OEIS neither those unnamed contractors nor the Navy personnel bothered to actually read the Executive Summary of the DEIS. Unless neither of those sets of people could be expected to notice the glaring confusion of terms that were apparent on first impression to me and several others.

For example, the DEIS/OEIS by its own terms, is intended to consider the variety of environmental impacts or effects that the three alternative actions produce in the NW Range Complex not one Proposed Action. Yet the term "Proposed Action" frequently occurs throughout the Executive Summary, yet is never defined or properly identified. Thus, the Executive Summary is a confusing document that does not permit a member of the public to know for sure just what the DEIS is intended to accomplish, let alone to determine if the Navy has actually met NEPA's requirements through this DEIS. It is that badly written.

Finally, the DEIS/OEIS fails to effectively (or even adequately) analyse the environmental effects of a variety of metals that, in several manmade forms, are toxic to humans & marine organisms. That it is possible to do so is demonstrated by simple online searches, which reveal, for example, that EPA has issued a fact sheet on the toxicity of manmade forms of chromium (compounds). Other information indicates that uptake by marine organisms occurs & is believed to be hazards (Australian gov't fact sheet on chromium, which cites US research in support of its conclusions). The DEIS/OEIS in no place & in no way even considers this data. Nope, no significant impact is the easy finding for the use, disuse & discard in the ocean of all ordnance, shells, underwater explosives, their deterioration & decomposition, etc. There are NO research articles cited to support the conclusions of the DEIS. Yet it seems that retrieval & disposal of used or faulty ordnance & its byproducts are in fact, a real issue. Why else would the Second International Dialogue on Underwater Munitions been held in February 2009? Why would there be a presentation titled: "Risk Assessment of Chemical Agents in Marine Environments--Parameters for Evaluation of Fate & Transport and Environmental Impacts? Why is there no discussion or inclusion of the data, research results & findings of the First International Dialogue included in this DEIS? Given the Navy's likely current activities & certainly it's proposed enhanced activities, how could such information possibly NOT be relevant in the consideration of the environmental impacts of the Navy's training activities?

For that reason too, this DEIS/OEIS fails to comply with NEPA & therefore should be withdrawn and no enhanced activities should be permitted.

It is impossible to determine, from this DEIS/OEIS, what the Navy's activities currently are in the nearshore/offshore, seafloor & airspace over Oregon, what their environmental impacts are and could reasonably be expected to be in the long term. What is long term (as in, a long term effect) is not defined anywhere in this DEIS, nor, for that matter, is short term, although NEPA requires both to be considered. This DEIS/OEIS nowhere gives even a hint, let alone lists, what the Navy's "enhanced" levels of activity in or near Oregon waters, seafloor & airspace are, for Alternative 1 or Alternative 2. It is impossible for anyone to review the DEIS in this respect. The Navy, through the DEIS, simply says, "Trust us. We're not going to tell you anything useful, We're not going to say what we're going to do, we're not going to say where we'll do it, how often we'll do it, or what we're going to use, let alone give you any useful scientific studies for evaluating any possible "enhanced" activities, but trust us, it's ok, there are no significant impacts."

I say, no, this DEIS's findings of "no significant impact" were reached by failing to comply with NEPA. They are not supported by valid scientific research as presented in peer-reviewed articles.

Oregon's beaches, bays, estuaries, wetlands, harbors, nearshore waters, seafloor, fishing and crabbing grounds and airspace the Navy is talking about. This is an extremely important discussion and determination. The result will significantly effect the daily lives of fishermen and coastal residents, how economically viable the fishing, tourist and resort industries will continue to be, how suitable an environment for ocean and estuarine research the Oregon coast will be. Therefore, "trust us," is most definitely NOT good enough. Moreover, such a statement, as

embodied in this DEIS/OEIS, violates the intent, spirit and specific provisions of the National Environmental Policy Act.

Respectfully submitted,

Susan Hogg  
P.O. Box 537  
Newport, OR 97365  
shogg1977@gmail.com

*Susan Hogg*  
*P.O. Box 537*  
*Newport, Oregon 97365*  
*(541) 265-3265*  
*shogg1977@gmail.com*

*Carol Van Strum*  
*7493 E. Five Rivers Road*  
*Tidewater, Oregon 97390*  
*(541) 528-7151*  
*cvs@casco.net*

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**February 16, 2009**

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, Washington 98315-1101  
ATTN: Mrs. Kimberly Kier – NWTRC EIS

Enclosed are comments on the NWTRC EIS from Susan Hogg and Carol Van Strum. Due to the failures and crashes endemic to the Navy website and the unreliability of its e-mail function, we are forced to submit our comments by hard copy via FedEx at considerable expense. This is but another unidentified impact and expense of the Navy's EIS.

Sincerely,

Susan Hogg  
Carol Van Strum

*Susan Hogg  
P.O. Box 537  
Newport, Oregon 97365  
(541) 265-3265  
shogg1977@gmail.com*

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**February 16, 2009**

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, Washington 98315-1101  
ATTN: Mrs. Kimberly Kier – NWTRC EIS

Re: Preliminary comments on NWTRC EIS/OEIS

This letter presents my preliminary comments on the draft U.S. Navy Northwest Training Range Complex Environmental Impact Statement/Overseas Environmental Impact Statement, volumes 1 & 2, hereinafter referred to as the EIS.

I found out about the January 30 meeting only a day or two before the meeting, and then only because I happened to read a post on a coastal list serve from someone who had read an article about it in the Seattle *Post Intelligencer*. I then called and/or e-mailed a number of other people on the coast, all of whom were unaware of the meeting or the EIS. I attended the meeting and the Navy personnel I spoke to were unable to answer several of my questions regarding the lack of information in the EIS on specific activities in Oregon near-shore and off-shore waters. The Navy personnel had no explanation to offer about why that information was omitted from the EIS. Subsequently, during the comment period, every person offering comments stated clearly that notice regarding the meeting was wholly inadequate.

Because of this Naval blunder the commenters were unable to review the EIS, and were therefore unable to make effective, informed comments. Among these commenters were a research expert on marine mammals, a representative of a fishery that contributes millions of dollars to Oregon's economy, and a Lincoln County Commissioner, also a commercial fisherman, who recounted

deaths and shipwrecks of fishing boats from encounters with submarines. These are people who clearly have a great deal to contribute to any honest discussion of the impacts of Naval war games in any waters off the Oregon coast, yet the Navy excluded them from both the scoping process and the drafting of this EIS.

The Navy's failure to consult, inform, and include in the NEPA process not only members of the public and local government but also scientific, commercial, and fishing experts, invalidates the entire EIS, 42 USC §4332 (A), (D) (iv).

Because of the inadequate notice and sloppy construction of the EIS, these are merely preliminary comments based on only a cursory review of the 1000+ page document. I have urged my Congressional delegation to demand, if not a withdrawal of the entire document, then at least an extension of the comment period with a minimum of two additional public meetings to be held in large population areas of Oregon with extensive weekly notice in multiple media required, beginning at least 45 days prior to each meeting.

I reviewed most closely the EIS executive summary. The summary is marked by its inability to decide whether it is a Notice of Intent or an EIS. Most of the text discusses a "Proposed Action," which leaves the reader wondering just what this proposed action is, since the EIS discusses not one but three alternative actions. This confusion renders the executive summary useless for determining what the Navy intends to do, and how it would affect the environment.

Both the executive summary and the rest of the document fail to identify past, current, and future activities in both inland and offshore waters of Oregon and northern California, which comprise most of the area involved in the EIS. This signal omission renders this document effectively useless for any person interested in determining just what the Navy proposes to do off the shores of Oregon, to say nothing of what it has already wrought. For example, the EIS acknowledges that past and present activities off the Oregon coast have involved the use of rounds comprised of depleted uranium. Based on the data supplied in the EIS, it appears that the Navy has annually dumped some 4,040 pounds of depleted uranium in offshore waters; however, this is a minimum estimate, because the navy provides the amount of depleted uranium per round only in the very smallest caliber shells. Thus it is reasonable to assume that the actual amount is far greater,

particularly as a far greater quantity of larger caliber shells are used (Table 3.3-4). The EIS fails to specify where or for how many years these depleted uranium rounds have been used in coastal waters, rendering the document useless in evaluating any significant impacts of their use. Furthermore, no prior environmental assessment or EIS has ever been prepared to evaluate the cumulative impacts of the Navy's past and current use of depleted uranium rounds in coastal waters, despite the well-known toxicity and persistence of this material.

The EIS repeatedly claims "no significant impact" from dumping of spent and unspent ordnance, chemicals, heavy metals, and other war games detritus without any data to support their claims. Even a superficial or cursory investigation by the unidentified Navy preparers of this travesty of a NEPA-required document would have revealed that even at current levels of Naval activity, local fishermen are spending much time and money retrieving Navy trash that substantially interferes with fishing equipment. (See: oral comments offered at January 30 meeting; see also Newport News-Times, Friday, February 13, page 1.) Thus in this one small area ostensibly covered by the EIS, the Navy's finding of no significant impact violates the most basic requirement of NEPA: to perform elementary fact-finding instead of engaging in wishful thinking.

Finally, the EIS blatantly fails to examine obvious and feasible alternatives such as reducing or eliminating all testing and training actions in the inland and offshore waters of Oregon and northern California.

For the above reasons, I advise the U.S. Navy to withdraw its EIS because of the fatal shortcomings of both its content and the Navy's public notice.

Submitted by:   
Susan Hogg  
P.O. Box 537  
Newport, Oregon 97365

Feb 13 2004  
Re: Permitting of CA Coast.  
We do not wish for  
the Navy to pursue  
armor testing nor  
expand this port and  
testing area.  
Sincerely  
Janet Wolfe  
45 Rainbow Gate  
Woodville Ca  
94062

**United States Navy  
Public Hearing Comment Form**  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Depositing this form at the Comment Table before you leave tonight.
- 2) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 3) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

27 Jan 2009

All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: ANGIE HOMOLA ISLAND COUNTY COMMISSIONER

Organization/Affiliation: DIST. 2

Address: \* P.O. Box 5000

City, State, Zip Code: COVINGTON, WA

Comments: \_\_\_\_\_

I HAVE HEARD FROM SEVERAL CONSTITUENTS  
THAT THE FULL OPPORTUNITY FOR PUBLIC  
COMMENT WAS COMPROMISED DUE TO  
ON-LINE KICK BACKS & WEB SITE SYSTEM  
DOWN TIME.

IT WOULD BE IN THE NAME & THE  
PUBLIC'S INTEREST TO EXTEND THE PUBLIC  
COMMENT PERIOD.

THANK YOU FOR YOUR HARD WORK  
& GOOD WISHES

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

ANGIE  
HOMOLA

I appreciate the effort in organizing this forum and opportunity for the public to comment on the draft EIS. Sadly, many were only made aware of this opportunity this week. I would like to kindly request that you extend the public comment period by 30 days. I will provide my primary comments on the draft EIS once I have had the opportunity to study the 1000+ pages document in detail. Thank You, Marissa

**Patrick Higgins**  
**Humboldt Bay Harbor, Recreation and Conservation District**  
**Fifth Division Commissioner**  
4649 Aster Road  
McKinleyville, CA 95521  
707 839-4987

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
Attn: Mrs. Kimberly Kler – NWTRC EIS

February 4, 2009

Dear Mrs. Kler,

Thank you for the opportunity to comment on the Navy's Northwest Training Range Complex (NWTR) Environmental Impact Statement (EIS), which includes the northern coast of California southward to the Mendocino-Humboldt County line and out to sea 250 miles. I am writing as an individual but I am an elected Commissioner of the Humboldt Bay Harbor, Recreation and Conservation District. Our District's jurisdiction includes the Shelter Cover Harbor at the southern extent of your range and we often concern ourselves with regional marine issues. Our offshore area includes four submarine canyons and is one of the ten richest areas of the world's oceans and should be considered for exemption from training activities.

#### **Sonar and Potential Impact to Marine Mammals**

I attended the presentation by the Navy and its consultants in Eureka, California, on February 2 and got a great deal of valuable information, but it also left me with several questions. I am pleased that low frequency sonar (LFS), which was documented as acutely stressful to cetaceans is no longer used but I am concerned about use of mid-frequency sonar (MFS) systems. According to the DEIS, the sound imaging distance of mid-frequency sonar is 18 kilometers, but what is the extent of distance traveled by the sound waves at a level that would be audible to whales, dolphins and porpoises? Your studies focus on lethal effects to these animals, but what is the nature of the "changes in behavior" that your team of analysts acknowledge?

Your DEIS shows that there are a number of whale species that inhabit both near-shore and deep water offshore areas within the NWTR area. While a few of these species have populations that are stable or growing, most are at depleted levels and number in the hundreds or low thousands. Many are classified as at risk of extinction and listed under the Endangered Species Act. All these whales have acutely sensitive hearing that overlaps with the MFS frequencies. Any changes in behavior or range caused by training activities could potentially push some of these species closer to extinction. How can the Navy be sure that some of its non-lethal behavior changes are not causing harm to these little studied species, many of which have such low population numbers so as to make a valid study impossible?

#### **Sensitivity of Northern California Portion NWTR and Potential Mitigation**

As noted above, the area of the northern California coast included in the NWTR has four submarine canyons: Trinity, Eel, Mendocino and Gorda. We also have extraordinarily consistent upwelling that is not dependent on the Pacific decadal oscillation cycle; consequently, our area has extraordinarily high productivity. What data do you have on the distribution and abundance of cetaceans in this area, particularly those that may feed for extended periods? I have observed whales feeding off our shores throughout summer, which may increase the potential impacts of the Navy's training here. The DEIS states that officially designated marine sanctuaries or preserves may be off limits to training. I request full consideration of granting status to the California portion of the NWTR. If the State of California sets up a system protected areas under the Marine Life Protection Act, how will that effect use for Navy training?

Navy staff and consultants in Eureka assured me that the National Marine Fisheries Service (NMFS) sets mitigation measures to greatly lessen potential impacts to whale species. Does NMFS sometimes use area closures as a component of mitigation? Does NMFS have data on seasonal use of the California portion of the NWTR that assist in risk assessment of your activities and shaping such mitigations?

While the DEIS states repeatedly that training activities are usually carried out off the Washington Coast and generally greater than 3 miles from shore, I was told by Navy personnel in Eureka that the Navy reserves the right to train inside three miles anywhere within the NWTR. Will the Navy potentially conduct activities inside three miles?

I was also assured that the Navy will do reconnaissance of an area to make sure that there is no whale activity in the vicinity before training involving MFS is initiated. The high concentration of plankton and windy conditions we typically experience in spring and summer make observation of whales from aircraft problematic. How will you assure that no vulnerable species are near sonar trainings, if turbidity in the ocean is too high for aircraft observations?

#### **Data Availability**

According to Navy staff and consultants presenting in Eureka, the Navy has spent over \$100 million on studies of potential effects of NWTR operation. Are all of the data from these studies available for public or scientific review or are some unavailable? In order for the public and scientific community to trust the outcomes the DEIS predicts and to verify its findings, 100% transparency is required. I am particularly interested in data that are used in calibrating the model for potential damage to whales from MFS. Additionally, I would like to know what data you have collected on altered behavior patterns of whales in response to sonar and would like you to demonstrate that it is not a threat to the long term survival of any species. Loss of any species constitutes irretrievable and irreversible damage.

### **Necessity for Training and Military Budget**

As a fisheries and watershed scientist, I am very aware that terrestrial and freshwater aquatic ecosystems of northern California and the Pacific Northwest are impaired and often acutely stressed. The ocean ecosystem is much less impacted and we would be wise to desist from any activities that cause loss species or other disruptions that are not absolutely necessary. We in Humboldt County voted heavily for Barack Obama, many in the hope that he would bring peace to this country and the world. We see this training exercise as a continuation of "business as usual" of unlimited military spending and do not think that the risk of invasion or attack from enemy submarines is high. Conversely, damage to the ocean ecosystem is likely to result from these activities.

I also disagree with the U.S. Supreme Court\* decision that gives authority to the Navy to override the Endangered Species Act due to national security concerns and will rely concerns to the President Barack Obama, who has ultimate sway in this matter as Commander and Chief.

Thank you for your consideration of these comments.

Sincerely,



Patrick Higgins

\* U.S. Supreme Court, the case of Donald C. Winter, Secretary of the Navy, et al. v. Natural Resources Defense Council, Inc., et al., [NRDC] Case No. 07-1239 [See WIMS 10/9/08]. The case was appealed from the U.S. Court of Appeals, Ninth Circuit.



BOARD OF SUPERVISORS  
**COUNTY OF HUMBOLDT**  
825 5<sup>TH</sup> STREET  
EUREKA, CALIFORNIA 95501-1153 PHONE (707) 476-2390 FAX (707) 445-7299

April 7, 2009

Kimberly Kler, Environmental Planner  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
Phone: (360) 396-0927

**Re: Draft Environmental Impact Statement/ Overseas Environmental Impact Statement for the Northwest Training Range Complex**

Dear Ms. Kler:

Thank you for the opportunity to provide input the U.S. Navy's Draft EIS for the Northwest Training Range Complex. I respectfully submit the following for consideration:

**1. Request that the Navy provide support and funds research to evaluate how fish and marine mammals respond to these training exercises.**

There are concerns about the Environmental Impact Statement and the effects of various training types. Of particular concern are behavioral and sub-lethal impacts of mid-range sonar and the proposed underwater training minefield to the fisheries, its impacts to the Pacific Northwest fishing industry, and marine mammals.

Types of training include aircraft over-flights, vessel movements and deployment of underwater explosives, SONAR, and sonobuoys. The EIS reviews the available literature on how fish react to sound and pressure waves, since these are impacts likely from underwater explosives, SONAR, and sonobuoys. Some important items for additional consideration include:

- \* Data on how fish respond to sound is limited to relatively few species (100 species of 29,000 species).
- \* Most marine fishes are less sensitive to sound than freshwater fishes. However, bay anchovy are relatively sensitive to sound. *I request that impact considerations inclusion of the northern bay anchovy since they are in the same family.*

- \* Sensitivity to sound appears to increase with fish size.
- \* There is much variation in how fish respond to sound, even within a single species.
- \* Little is known about the chronic impact of sound on fish and nothing is known about the behavioral response of fish to these impacts. *A chronic impact is one that does not kill the fish, but results in injury or impaired activity.*
- \* The impact of pressure waves from explosives has potential to injure or kill fish. The EIS presents some data estimating that adult Chinook salmon within 320 meters (*about 3 football fields*) may be injured or killed by detonating a 20 lb bomb.

These observations suggest that U. S. Naval training exercises have potential to harm fish. Alternative 2, the preferred alternative, training regime identified in the EIS would result in the deployment of 144 bombs, 57 missiles and 9,651 sonobuoys (including 149 explosive sonobuoys) each year. Additionally, Alternative 2 would also deploy sonar devices. If *deployed evenly over the large training area*, it is unlikely to cause large impacts to fisheries. If, however, training exercises are *concentrated in limited areas*, the potential for harm would certainly increase.

The EIS suggests that the training exercises may not kill large numbers of fish, however training exercises have potential to impact the behavior of fish, and particularly migratory species such as salmon.

*Example: Migrating Chinook salmon off Trinidad, California, rise to within 1 meter of the surface every day at noon. Researchers in Norway have found that Atlantic salmon in the North Sea exhibit the same behavior. No one yet knows why salmon surface every day at mid-day, but it is likely associated with navigation during migration.*

Activities that interfere with this kind of behavior could affect Chinook salmon, and perhaps other migrating fish. The EIS emphasizes the lack of information on fish response to sound/pressure waves and calls for research on this topic.

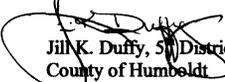
**2. NOAA National Marine Sanctuary program is conducting initial surveillance and data gathering activities in the Klamath region for the evaluation and potential establishment of a Marine Sanctuary.**

Due to time constraints, and the fact that the EIS consists of two documents totaling about 1,000 pages it was difficult to determine the location of training activities described in the EIS, and as a consequence provide meaningful comment to the EIS. Although the Pacific Northwest "Operating Area" extends from the Humboldt/Mendocino County boundary to the U.S./Canada boundary, no mention of where specific training might occur within that large area is provided.

Combined with the NOAA NMS preliminary planning, surveillance and data gathering activities in the Klamath region, I am unable to provide more specific impact/mitigation comments to the Navy other than to bring this effort to your attention.

In closing, thank you for the previous extension for to allow for additional public comment.

Sincerely,

  
Jill K. Duffy, 5th District Supervisor  
County of Humboldt

JD:kh

cc: Congressman Mike Thompson  
Senator Dianne Feinstein  
Senator Barbara Boxer  
Mendocino County Board of Supervisors  
Del Norte County Board of Supervisors  
State Senator Pat Wiggins  
State Assembly Member Wes Chesbro  
Yurok Tribal Chairwoman Tripp  
NOAA Southwest Regional - Rod McInnis



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March 30, 2009

Kimberly Kler, Environmental Planner  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
Phone: (360) 396-0927

Re: Draft Environmental Impact Statement/ Overseas Environmental Impact Statement  
for the Northwest Training Range Complex

Dear Ms. Kier:

We are writing to you regarding the Navy's proposal to expand both the area and the scope of activities within the Northwest Training Range Complex. As Humboldt County Supervisors, we have concerns both with the apparent ineffectiveness of public noticing efforts, and with the nature of the expansion itself.

We understand that the EIS/OEIS was originally published on December 30<sup>th</sup>, 2008 with public comment scheduled to close on March 11. We further understand that the comment period has since been extended to April 11<sup>th</sup>, in response to requests from the Oregon Congressional delegation, the Mendocino County Board of Supervisors and other entities.

Despite this extension, the issue itself was unknown to us until it was brought to our Board's attention by a concerned citizen on March 24<sup>th</sup>. Thus, while we appreciate the Navy's good-faith efforts to allow for more public comment, it must be recognized that a public comment period is of absolutely no value if the public is not made aware of the issue at hand and of their opportunities to provide input.

We further understand that the Navy held a public meeting in Eureka on February 2<sup>nd</sup> that was attended by Supervisor Jimmy Smith and at least one member of the public. However, a scan of the archives of our local newspapers shows no public notice in advance of the meeting, and no reporting of it afterwards. Clearly, the public cannot be expected to attend a meeting of which *they* have not been made aware.

For a public comment period to have value, it must be meaningful. The public must be made aware of the issue, they must be given access to necessary information so that they can speak knowledgeably on the issue, and they must be given ample opportunities to address their comments and concerns to the agencies and decision-makers who will then weigh that input. In this case, none of those requirements appear to have been met in any meaningful fashion.

Given the lack of public awareness of this issue, we have not had opportunity to develop informed comments on the EIS/OEIS. However, we have a number of initial concerns which we would hope to see addressed, given a reasonable and meaningful opportunity for review and comment. Among these are the behavioral and sub-lethal impacts of midrange sonar on marine mammals, the impact of the proposed underwater training minefield on our already-beleaguered fishing industry and the impact of near-shore operations on our scenic resources and quality of life.

Additionally, we find it difficult to understand the stated need for the proposed expansion, as it seems to be at odds with the stated purpose of the project. The website for this project (<http://nwtrangecomplexeis.com/EIS.aspx#atc>) describes the project's goals as:

- *Maintain current, levels of military readiness, including ships, submarines, and aviation squadrons, and accommodate future increases;*
- *Adequately support the training need for new ships, aircraft, and weapons systems;*
- *Identify and provide for range enhancements; and*
- *Maintain the long-term viability of the range complex while protecting human health and the environment.*

This language describes a maintenance effort, not an expansion. There is no substantial discussion of any need to expand the area and scope of activities in the range, as proposed by the preferred alternative. If the Navy has been adequately prepared in the past, utilizing the existing range, then clearly that must be seen as demonstrable proof that the existing facilities are adequate for maintaining future readiness.

Given this, the defined "Purpose and Need for the Proposed Action" provides a compelling argument for the "No Action" Alternative. As described; *"The No Action Alternative is comprised of baseline operations and support of existing range capabilities. Training and unit-level activities would continue at baseline levels. The Northwest Training Range Complex capabilities would not accommodate proposed force structure changes or provide range enhancements."*

It appears that there is an inconsistency between the desire to significantly expand both the area and the scope of operations, and the desire to downplay to the public that very expansion. If indeed, the purpose is to *expand* activities, then words such as 'maintain current levels' can only be seen as an inadequate and inaccurate description.

In closing, *we* again note our appreciation for the extension of the public comment period, but ask that the Navy recognize that the additional time is of little meaning if the public is only now becoming aware of the proposal. We do not feel that the addition of a few weeks' time is adequate *for* a project which is only now coming to the public's attention, and ask that the Navy restart the 45-day public comment period and provide both an adequate outreach program to inform the public of the proposal and a detailed schedule of opportunities for public input throughout the entirety of the project area.

Lastly, we hope to bring this issue to the attention of our full Board at our next meeting on April 7<sup>th</sup>, and anticipate further correspondence to follow.

Thank you for your attention to our concerns.

Sincerely,



Mark Lovelace  
Supervisor, 3<sup>rd</sup> District  
County of Humboldt



Cliff Clendenen  
Supervisor, 2<sup>k</sup> District  
County of Humboldt

cc:

Congressman Mike Thompson  
Senator Dianne Feinstein  
Senator Barbara Boxer  
Mendocino County Board of Supervisors  
State Senator Pat Wiggins  
State Assembly Member Wes Chesbro



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April 7, 2009

Kimberly Kler, Environmental Planner  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
Phone: (360) 396-0927

Re: Draft Environmental Impact Statement/ Overseas Environmental Impact Statement for the Northwest Training Range Complex

Dear Ms. Kler:

I am writing on behalf of the Humboldt County Board of Supervisors regarding the Navy's proposal to expand both the area and the scope of activities within the Northwest Training Range Complex. We are concerned both with the apparent ineffectiveness of public noticing efforts, and with the nature of the expansion itself.

We understand that the EIS/OEIS was originally published on December 30<sup>th</sup>, 2008 with public comment scheduled to close on March 11<sup>th</sup>. We further understand that the comment period has since been extended to April 11<sup>th</sup>, in response to requests from the Oregon Congressional delegation, the Mendocino County Board of Supervisors and other entities.

Nonetheless, the issue has only recently caught the public's attention. Though a public meeting was held in Eureka on February 2<sup>nd</sup>, it was poorly attended. A scan of the archives of our local newspapers shows no public notice in advance of the meeting, and no reporting of it afterwards. Clearly, the public cannot be expected to attend a meeting of which they have not been made aware.

To the best of our knowledge, the local media had not reported on this issue at all until this past Tuesday, March 31<sup>st</sup>, the same day that the Navy held a public meeting with the Mendocino Board of Supervisors. Thus, while we appreciate the Navy's good-faith efforts to allow for more public comment, it must be recognized that a public comment period is of no value if the public is not made aware of the issue at hand and of their opportunities to provide input.

For a public comment period to have value, it must be meaningful. The public must be made aware of the issue, they must be given access to necessary information so that they can speak knowledgeably on the issue, and they must be given ample opportunities to address their comments and concerns to the agencies and decision-makers who will then weigh that input. Though the Navy has provided information on the project's website, we believe there has been inadequate public outreach to drive people to that resource, making it of little value.

Beyond these procedural issues, our Board also has concerns with the behavioral and sub-lethal impacts of mid-range sonar on marine mammals, the impact of the proposed underwater training minefield on our already-beleaguered fishing industry and the impact of near-shore operations on our scenic resources and quality of life.

Additionally, we find it difficult to understand the stated need for the proposed expansion, as it seems to be at odds with the stated purpose of the project. The website for this project (<http://nwtrangecomplexeis.com/EIS.aspx#atc>) describes the project's goals as:

- *Maintain current levels of military readiness, including ships, submarines, and aviation squadrons, and accommodate future increases;*
- *Adequately support the training need for new ships, aircraft, and weapons systems;*
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- *Maintain the long-term viability of the range complex while protecting human health and the environment.*

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Given this, the defined "Purpose and Need for the Proposed Action" provides a compelling argument for the "No Action" Alternative. As described, *"The No Action Alternative is comprised of baseline operations and support of existing range capabilities. Training and unit-level activities would continue at baseline levels. The Northwest Training Range Complex capabilities would not accommodate proposed force structure changes or provide range enhancements."*

It appears that there is an inconsistency between the desire to significantly expand both the area and the scope of operations, and the desire to downplay to the public that very expansion. If indeed, the purpose is to *expand* activities, then words such as *'maintain current levels'* can only be seen as an inadequate and inaccurate description.

In closing, we again note our appreciation for the extension of the public comment period, but ask that the Navy recognize that the additional time is of little meaning if the public is only now becoming aware of the proposal. We do not feel that the addition of a few weeks' time is adequate for a project which is only now coming to the public's attention, and ask that the Navy restart the 45-day public comment period and provide both an adequate outreach program to inform the public of the proposal and a detailed schedule of opportunities for public input throughout the entirety of the project area.

Thank you for your attention to our concerns.

Sincerely,



Jimmy Smith, Chair  
Humboldt County Board of Supervisors

JS:kh

cc: Congressman Mike Thompson  
Senator Dianne Feinstein  
Senator Barbara Boxer  
Mendocino County Board of Supervisors  
Del Norte County Board of Supervisors  
State Senator Pat Wiggins  
State Assembly Member Wes Chesbro

# Humboldt County Democrats

Post Office Box 1392 ❖ Eureka, California 95502-1392

## Democratic Headquarters

129 Fifth Street, Eureka

### District 1 Members

Carol Conners  
Greg Conners  
Bill Henneberry  
Phillis A. Taborski  
Julie Timmons  
James R. Topping

February 12, 2009

### District 2 Members

Barbara Kennedy  
Patrick Riggs

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, Washington 98315-1101

### District 3 Members

Chris Beresford  
Milton Boyd  
Pam Cahill  
Barbara Carolan  
Brandon Chapin  
Michael Winkler

Attn: Mrs. Kimberly Kler-NWTRC EIS

### District 4 Members

Charlene Cutler-Ploss  
Richard P. Marks  
Bob Service  
Pam Service

Dear Mrs. Kler:

The Humboldt County Democratic Central Committee (HCDCC) takes this opportunity to comment on the Navy's Northwest Training Range Complex (NWTR) Environmental Impact Statement.

### District 5 Members

Larry Hourany  
Steve Newman  
Roger L. Smith

At our meeting on February 11, 2009, the full HCDCC passed the attached Resolution endorsing the comments of Patrick Higgins dated February 4, 2009, also attached.

### Ex-Officio Members

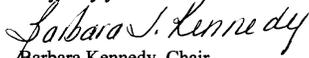
Zuretti Goosby  
Elizabeth Murguia  
Greg Paoli

### Associate Members

Linda Atkins  
Diana Berliner  
Bette Boyd  
Shane Brinton  
Jean Caldwell  
Karen Childers  
Mary E. Dennison  
Chuck DeWitt  
Sheryl Esparza  
Bob Garcia  
Jan Garcia  
Mark Greenleaf  
Chuck Harvey  
Ginny Hedgecock  
Irene Hedgecock  
Patrick T. Higgins  
Mel Krebs  
Ron Kuhnel  
Duane B. Leal  
Larry Levine  
Mark Lovelace  
Joe MacTurk  
Robin L. Marks  
Tom Meyer  
Sofia Pereira  
Claire S. Perricelli  
Gene Perricelli  
Linda Rush  
Shelia Steinberg, Ph.D.  
Steven J. Steinberg, Ph.D.  
Mary Ann Lyons-Tinsley  
Carole Ziskin

We would like this resolution endorsing the comments of Patrick Higgins to be entered into the public record on behalf of the HCDCC and to have these comments responded to in the final version of the Environmental Impact Statement.

Very truly yours



Barbara Kennedy, Chair  
Subcommittee on Communication and Education  
Humboldt County Democratic Central Committee

Enclosures

RESOLUTION ENDORSING THE COMMENTS OF PATRICK HIGGINS TO THE NAVY'S NORTHWEST TRAINING RANGE (NWTR) COMPLEX DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)

WHEREAS, the U.S. Navy is planning to conduct training exercises in an area which includes the northern coast of California southward to the Mendocino-Humboldt County line; and

WHEREAS, the Navy has presented a DEIS for public comment; and

WHEREAS, Patrick Higgins, an elected Commissioner of the Humboldt Bay Harbor, Recreation and Conservation District and a member of the Humboldt County Democratic Central Committee and a fisheries and watershed scientist, has submitted his comments of concern which comments dated February 4, 2009 are attached as part of this resolution.

THEREFORE BE IT RESOLVED, that the Humboldt County Democratic Central Committee endorses the comments of concern of Patrick Higgins and calls upon the U.S. Navy to duly note and incorporate these comments into the public record of the Navy's Northwest Training Range Complex Draft Environmental Impact Statement on behalf of the Humboldt County Democratic Central Committee and respond to these comments in the final version of the Environmental Impact Statement.

(voted upon and passed 2/11/09)

4/8/09

Dear Sirs:

"You should rule a country as you would cook a small fish"

We will see a time when there will only be plankton & jelly fish in the ocean

Don't blow up the ocean!

NO, NO, NO!

Those marine mammals and other sea life <sup>are</sup> fragile.

Don't blow up the ocean!

Tom Hinnicutt  
Box 257  
Laytonville, Ca.  
93454

Hurd email.txt

-----Original Message-----

From: John Hurd [mailto:azure@whidbey.com]  
Sent: Friday, February 06, 2009 10:54  
To: Hughes, Sean A CIV CNRNW, N00P  
Cc: Congressman Rick Larsen; mark.middaugh@mail.house.gov;  
sanjeev.sharma@parsons.com  
Subject: Re: NWTRC EIS/OIES feedback

To:  
Sean Hughes  
Deputy Director of Public Affairs  
Commander, Navy Region Northwest  
1100 Hunley Rd., Suite 213  
Silverdale, WA 98315  
(360) 396-4973

Mr. Hughes:

Since the NWTRC eis response period started 12-29-09 until today I had not been able to make any response online.

Thanks to the efforts on the part of Mr. Sanjee Sharma and others with your website contractor Parson's 703-801-7025, the Navy's comment webpage <http://www.nwtrange.com/complexeis.com/NtrcCommentForm.aspx> actually took my comment today for the first time in many attempts. By my reckoning it's now 38 days into your 44 day comment period. That means that I and others have been rebuffed 86% of the comment timeframe...with the following message (copied here):

\*\*\*\*\*  
\*\*\*\*\*

Server Error in '/' Application.

Failed to add comment

Description: An unhandled exception occurred during the execution of the current web request. Please review the stack trace for more information about the error and where it originated in the code.

Exception Details: System.Exception: Failed to add comment

Source Error:

```
Line 54:         catch
Line 55:         {
Line 56:             throw new Exception("Failed to add comment");
Line 57:         }
Line 58:         finally
```

Source File: d:\NWTRC\NtrcCommentForm.aspx.cs Line: 56

Stack Trace:

[Exception: Failed to add comment]  
\_Default.lnkAddUser\_Click(Object sender, EventArgs e) in  
d:\NWTRC\NtrcCommentForm.aspx.cs:56

Page 1

```
Hurd_email.txt
System.Web.UI.WebControls.LinkButton.OnClick(EventArgs e) +90
System.Web.UI.WebControls.LinkButton.RaisePostBackEvent(String
eventArgument) +76
System.Web.UI.WebControls.LinkButton.System.Web.UI.IPostBackEventHandler
.RaisePostBackEvent(String eventArgument) +7
System.Web.UI.Page.RaisePostBackEvent(IPostBackEventHandler
sourceControl, String eventArgument) +11
System.Web.UI.Page.RaisePostBackEvent(NameValueCollection postData)
+177
System.Web.UI.Page.ProcessRequestMain(Boolean
includeStagesBeforeAsyncPoint, Boolean includeStagesAfterAsyncPoint)
+1746
```

Version Information: Microsoft .NET Framework Version:2.0.50727.1433; ASP.NET
Version:2.0.50727.1433
\*\*\*\*\*
\*\*\*\*\*

Thank you for putting Mr. Sharma in touch. I emailed him the above and
apparently he and his cohorts resolved this issue yesterday, for the time being at
least.

I find it astonishing that you indicate that you've received only 40 some responses
online todate, 38 days into your 44 day "response period"
on this far reaching issue you've been planning. Perhaps others were confused or
put off by being "required" to enter an "organization" (one
of 4 "required" fields) in order to comment. what about unaffiliated
individuals? your response webpage offer no option to them. I'd
really appreciate hearing an explanation for the rationale for this "organization"
requirement that appears to be an impediment to the process. were the 40 some
responses you received allowed into the system because they came from members of the
"right" organizations?

In light of these delays and communication difficulties, it is only reasonable that
the eis response period be extended.

My response to the NWTRC draft eis follows and I submit it here (please pass it onto
the eis people) in the context of not having gotten any feedback other than the
"thank you" message after sending via the webpage today that my comments actually
got to the Navy. You, for instance, got a reply indicating I'd opened your email to
me.

Response/comment on the Navy's NWTRC draft eis from John Hurd WA 98236 on 2-6-09:

Access to the 1068 page EIS documents was unavailable from the Navy's
website: www.nwtrangecomplexeis.com/EIS.aspx from Jan 15 -21 (15% of Public Review
Period). Further, it appears the Navy's primary mechanism to receive public comment:
was non-functional (due to an "abort" issue
online) for some from the Dec. 29, 2008 until Feb 6 (86% of Public Review Period
ending Feb 11). Therefore I request an extension of response period.

While recognizing the need for readiness through training, the No Action Alternative
is all that we can support due to lack of information available to assess the impact
on numerous endangered and declining marine species, especially with proposed
testing of new systems.

Prior to supporting proposed changes in training activities the Navy needs to fund
independent research on the seasonal presence of marine mammals, fish and birds
found with their training ranges rather than rely on outdated surveys.

Hurd\_email.txt

The Navy needs to provide the public access to non-classified ambient acoustic
information in their training ranges to confirm compliance with their operations

The Navy needs to have demonstrated a means to respond to a maritime incident in all
areas including interactions between ships and commercial vessels.

The Navy needs to research and quantify the presence of currently existing
radioactive spent munitions (depleted uranium) from it's past activities and
establish current levels of those materials in fisheries, fish, and other marine
fauna. Safety to human consumption of fish taken from fisheries must be researched
and assured.

Once these conditions have been met to assess the impacts of their current
operations, proposals for testing new systems and expanded operations can be
considered.

I see the Navy as the "can do" heroes of America's defense, capable of amazing
feats, including mid-air refueling and other seemingly impossible things in the
execution of their mission. I would hope that taking seriously the protection of
our nation's heritage marine environment would be viewed as part of their mission
statement...and it's execution as flawless as all other endeavors.

Sincerely,
John Hurd
WA 98236

----- Original Message -----
From: Hughes, Sean A CIV CNRNW, N00P
<mailto:sean.a.hughes@navy.mil>
To: azure@whidbey.com
Sent: Thursday, February 05, 2009 11:08 AM
Subject: NWTRC EIS/OIES feedback

Hello Mr. Hurd,

I just wanted to follow up on our phone conversation yesterday afternoon
to make sure we are doing what we can to help you comment on the
Northwest Training Range Complex (NWTRC) EIS/OEIS project. I got your
e-mail address from the sign-in form you filled out at the Oak Harbor
public hearing last week.

I understand you have had issues with submitting comments from your
computer on the NWTRC "Comment Form" at
http://www.nwtrangecomplexeis.com/NtrcCommentForm.aspx. Our team has
made dozens of attempts to access and use the online submission form
with different computers, browsers and online connections, and we
haven't run across the same issue you cited yesterday. All seems to
continue working well. So far, over 40 other public comments have been
received via this form.

That said, there are probably thousands of possible
[computer/browser/Internet Service Provider] combinations that make
online interaction anywhere on the web an occasional challenge.

I

passed along your version of Internet Explorer to our technicians
immediately after our phone call to try and isolate the problem, and I
understand our technical representatives have left you a couple of
messages to try to help you directly with those specific browser issues
you mentioned.

We want your comments on this project and we'll do whatever we can to
Page 3

Hurd\_email.txt  
reasonably accommodate this exchange. If you do not wish to attempt to use the online comment form any longer, you may also submit your comments by mail using this comment form:

[http://www.nwtrangecomplexeis.com/Documents/NWTRC\\_Comment%20Form-website.doc](http://www.nwtrangecomplexeis.com/Documents/NWTRC_Comment%20Form-website.doc). As long as the envelope is postmarked by Feb. 11, 2009 (deadline for submission) we will accept it.

And as we discussed yesterday, in light of these circumstances, you may also send your comments directly to me in the most convenient format (attached Word document, plain text, etc.) at:  
sean.a.hughes@navy.mil.

Please feel free to call me if you have any questions.

I hope it helps.

Sincerely,  
Sean

Sean Hughes  
Deputy Director of Public Affairs  
Commander, Navy Region Northwest  
1100 Hunley Rd., Suite 213  
Silverdale, WA 98315  
(360) 396-4973  
<http://www.cnrc.navy.mil/cnrnw>  
<http://www.northwestnavigator.com>

To  
NWTRC eic public comment process  
From  
John Hurd  
Clinton WA 98236

2-10-09

NWTRC PROCESS FATALLY FLAWED  
WERE PUBLIC RESPONSES CHERRY-PICKED?

The Navy's NWTRC public comment webpage  
<http://www.nwtrangecomplexeis.com/NtrcCommentForm.aspx>  
finally worked for me on Friday 2-6-09 I had a conversation on that Friday with Sean Hughes, Deputy Director of Public Affairs, Commander, Navy Region Northwest, who opined that I was unique in raising a complaint about not having been able to comment online prior to that. It's not true that I'm unique in finding the site nonfunctional.

I can imagine that many who had their online comment attempts rebuffed lacked the temperament or intestinal fortitude to follow up with a formal complaint. Nonetheless, in this tech age, the website is the primary communication organ and ought to function for all during all of the comment period established.

The Navy would like to construe this technical issue to be an isolated incident. It's not. Here's some information to refute the "isolated incident" (better construed as the "blame the victim") idea and to put it in context: 6 emails from others (copied below) who had the same "abort" issues I had including one wherein the Navy acknowledges on Jan 20 there was an "abort issue".

Deputy Director Hughes writes on 2-5-09: "So far, over 40 other public comments have been received via this form." A mere 40-some online comments from a possible 300 million Americans 38 days into the comment period on a project this big leads me to believe that the Navy has succeeded in keeping comments to a minimum. If those comments got through before 2-5-09 was it because those folks happened to enter the "right" organization in the "required" organization field? Sorry, but in this era of "crisis in trust" I'm uneasy that some comments got through and others didn't. Smells fishy. There is a window of doubt.

The issue here is not just my own or any one individual's comments being heard or accepted online. This issue I raise is that the Navy has done less than a competent job making the public response process work for all. Mr. Hughes implied the problem was with my computer.

The fact is that the problem was solved without any changes to my computer equipment or connection when the good folks at Parsons (Navy's web contractor) finally fixed the Navy's dysfunctional comment webpage - <http://www.nwtrangecomplexeis.com/NtrcCommentForm.aspx> after talking with me on the phone on 2-5-09. The problem which untold numbers of individuals had encountered was resolved on that day. That's 38 of 44 comment days (now 51 days with the Navy having just granted a mere 7 day extension because of this mess). There is no evidence that the system

worked for all from the beginning (12-29-08). There is plenty of evidence that for 38/51 or 75% of the comment period many individuals' attempts to comment were "aborted" (Navy's term).

The Navy's process was broken for more than a month and more than a week's extension is required to compensate, as expressed by attorney Zak Smith with NRDC. Please provide a month's extension beyond 2-18-09 or start over. The process is broken.

Thank you.  
Sincerely,

John Hurd  
Clinton WA

\*\*\*\*\*

----- Original Message -----

From: Drew Kampion  
To: John Hurd  
Sent: Tuesday, January 13, 2009 9:07 PM  
Subject: Re: Northwest Military Training Range Complex EIS

Hmm ... got this:

Server Error in '/' Application.

Failed to add comment

Description: An unhandled exception occurred during the execution of the current web request. Please review the stack trace for more information about the error and where it originated in the code.

Exception Details: System.Exception: Failed to add comment

Source Error:

```
Line 52:     catch
Line 53:     {
Line 54:         throw new Exception("Failed to add comment");
Line 55:     }
Line 56:     finally
```

Source File: d:\NWTRC\NtrcCommentForm.aspx.cs Line: 54

Stack Trace:

[Exception: Failed to add comment]

```
Default.InkAddUser_Click(Object sender, EventArgs e) in d:\NWTRC
\NtrcCommentForm.aspx.cs:54
System.Web.UI.WebControls.LinkButton.OnClick(EventArgs e) +90
System.Web.UI.WebControls.LinkButton.RaisePostBackEvent(String eventArgument) +76
```

```
System.Web.UI.WebControls.LinkButton.System.Web.UI.IPostBackEventHandler.RaisePostBackEvent(String eventArgument) +7
System.Web.UI.Page.RaisePostBackEvent(IPostBackEventHandler sourceControl, String eventArgument) +11
System.Web.UI.Page.RaisePostBackEvent(NameValueCollection postData) +177
System.Web.UI.Page.ProcessRequestMain(Boolean includeStagesBeforeAsyncPoint, Boolean includeStagesAfterAsyncPoint) +1746
```

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Version information: Microsoft .NET Framework Version:2.0.50727.1433; ASP.NET Version:2.0.50727.1433

\*\*\*\*\*  
----- Original Message -----

From: joelshrut@aol.com  
To: azurc@whidbey.com  
Sent: Wednesday, January 14, 2009 7:36 AM  
Subject: Re: Northwest Military Training Range Complex EIS

John, thanks for this forward. I will be back on the 29th and can't make this hearing. I did try to make a comment on line and they require that an organization be listed.. I tried several that I belong to i.e. Sierra club, mountaineers, etc... but the comment would not send.... Any ideas... did you make a comment on line? I really want my voice heard.... joel

\*\*\*\*\*

----- Original Message -----

From: Howard Garrett  
To: John Hurd  
Sent: Tuesday, January 20, 2009 6:06 PM  
Subject: Re: Response Re: Navy project & Navy maps

John,

Adm. Symonds answered and referred my concerns to a techie who is working on it. Here is there response.

Good points from Fred.

Howard

Good afternoon Howard.

The form has been repaired to accept the organization and the abort issue should be resolved. The availability of the site is still being resolved. It is a main server issue in D.C. The info I received today said that inauguration took priority on everything in D.C. today, but that it is being treated as an urgent issue and should be resolved shortly. I will keep an eye on it in the next day or two to ensure it came back up and will let you know.

Sorry for the problems,

Renee

B. Renee Wallis, P.E.  
CNRNW N40  
(360) 315-5400

-----Original Message-----

From: Symonds, James RDML Commander, Navy Region Northwest  
Sent: Monday, January 19, 2009 12:21  
To: 'howard@orcnetwork.org'; Wallis, Renee B CIV CNRNW, N40  
Subject: Re: Draft of article for the Navigator

You bet, Howard.

Renee, Would you please look into this for Howard? Let me know when his concerns are satisfied.

Thanks, JAS

-----Original Message-----

From: Dr. Jeanie Bein  
To: John Hurd  
Sent: Wednesday, January 28, 2009 5:23 PM  
Subject: Re: Whales on the radio

Hi John,

I went to the Navy's website and wrote a comment and submitted it. The site rejected the comment, saying "Failed to add comment." I can't figure it out!

Jeanie

\*\*\*\*\*

----- Original Message -----

From: Howard Garrett  
To: John Hurd  
Sent: Wednesday, February 04, 2009 11:45 PM  
Subject: Admiral Symonds is looking into it

John,

I tried to send my comments via the web page and got the same problem. So I wrote to Adm. Symonds and said I had heard from friends that couldn't submit comments either and I really think there should be an extension for comments, and that the problems are burning up the blogs and emails. He got back within minutes, at 9:12 PM, and said he would look into it.

Howard

\*\*\*\*\*

----- Original Message -----

From: Mark Wahl  
To: azure@whidbey.com  
Sent: Wednesday, February 04, 2009 8:05 AM  
Subject: can get comment to submit

Hi John,

I am having trouble getting the comment page for the Marine Sanctuary to pass on the comment. an error comes up each time and the comment won't go through. It's on <http://www.nwtrangecomplexeis.com/NtrcCommentForm.aspx>.

Have you had trouble with this recently?

Here's the letter I am trying to send -- try it and see if it goes through for you or someone else. If I can get the comment page to work I will send word out more widely to trigger more comment submission.

Mark

\*\*\*\*\*

From: John Hurd [mailto:azure@whidbey.com]  
Sent: Wednesday, February 04, 2009 3:17 PM  
To: Middaugh, Mark  
Subject: attn Mark Middaugh Navy eis extension

Mark,

The following (copied below) is what I get when attempting today to comment on the Navy's NWTR eis

This has been the experience of several others who have attempted to comment.

This has been the situation in spite of communications with the Navy, the Commander, the environ. planner on the project for the Navy etc. and assurances this (which they refer to as an "abort" issue) has been fixed. (See attached email from the NW commander). It has not.

An extension of the comment period is necessitated.

Please ask the Navy for an extension.

Thanks.

John Hurd

Server Error in '/' Application.

Failed to add comment

Description: An unhandled exception occurred during the execution of the current web request. Please review the stack trace for more information about the error and where it originated in the code.

Exception Details: System.Exception: Failed to add comment

Source Error:

```
Line 54:     catch
Line 55:     {
Line 56:         throw new Exception("Failed to add comment");
Line 57:     }
Line 58:     finally
```

Source File: d:\NWTRC\NtrcCommentForm.aspx.cs Line: 56

Stack Trace:

[Exception: Failed to add comment]

Default.InkAddUser\_Click(Object sender, EventArgs e) in d:\NWTRC

NtrcCommentForm.aspx.cs:56

System.Web.UI.WebControls.LinkButton.OnClick(EventArgs e) +90

System.Web.UI.WebControls.LinkButton.RaisePostBackEvent(String eventArgument) +76

System.Web.UI.WebControls.LinkButton.System.Web.UI.IPostBackEventHandler.RaisePostBackEvent(String eventArgument) +7

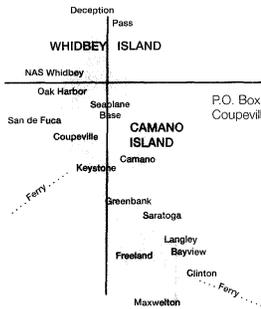
System.Web.UI.Page.RaisePostBackEvent(IPostBackEventHandler sourceControl, String eventArgument) +11

System.Web.UI.Page.RaisePostBackEvent(NameValueCollection postData) +177

System.Web.UI.Page.ProcessRequestMain(Boolean includeStagesBeforeAsyncPoint, Boolean includeStagesAfterAsyncPoint) +1746

Version Information: Microsoft .NET Framework Version:2.0.50727.1433; ASP.NET

Version:2.0.50727.1433



**Island County Board of Commissioners**

P.O. Box 5000  
Coupeville, Washington 98239-5000

Phone: (360) 679-7354  
From Camano: (360) 629-4522  
From S. Whidbey: (360) 321-5111  
Fax: (360) 679-7381  
www.islandcounty.net

February 2, 2009

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Ste. 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler – NWTRC EIS/OEIS

Dear Representative:

The Board of Island County Commissioners wishes to extend its gratitude for the in-depth draft EIS/OEIS of the Northwest Training Range Complex (NWTRC) you have prepared. This is a complex and highly detailed study. Understanding the full ramifications of the No Action, Alternative 1 and Alternative 2 proposals requires many hours of scrutiny.

As government agency representatives, we realize the importance of transparency and public participation. We understand that there were glitches with the NWTRC web site that prevented downloading of the document, denied web site access and aborted submissions. This resulted in many denied days for public comment.

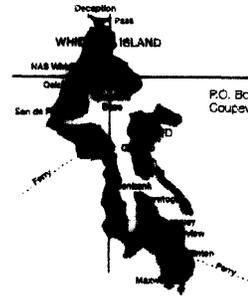
It is our shared interest to provide citizens the opportunity to review this complex proposal and to allow ample time for comment. We respectfully request that you extend the public comment period to February 28, 2009. This will send a clear message that the United States Navy is an earnest supporter of the citizens of this country.

Board of County Commissioners  
Island County, WA

*John Dean*  
John Dean, Chairman

*Helen Price Johnson*  
Helen Price Johnson, Member

*Angie Homola*  
Angie Homola, Member



**Island County Board of Commissioners**

P.O. Box 5000  
Coupeville, Washington 98239-5000

Phone: (360) 679-7354  
From Camano: (360) 629-4522  
From S. Whidbey: (360) 321-5111  
Fax: (360) 679-7381  
www.islandcounty.net

March 11, 2009

United States Navy  
Northwest Training Range Complex  
Draft Environmental Impact Study/  
Over Water Environmental Impact Study

Dear Representative,

We thank you for the extension to 11 March for public comment on the EIS/OEIS for the Northwest Training Range Complex (NWTRC). Although this was helpful, we are receiving resounding concerns that citizens need more time and more answers.

The Navy's role in protecting our citizens is crucial, but protection has many facets that must work in concert.

It is our job as public officials to find and support that balance of man and nature that will keep our citizens safe, fed and healthy while affording the highest quality of life possible.

There have been many questions raised by citizens with regard to the science applied and data used in the EIS/OEIS. Many are concerned that a large section of the training ground overlaps with a critical habitat designation of Southern Killer Whales, which are protected by the Endangered Species Act. A portion of the training ground almost totally encompasses the Olympic National Marine Sanctuary, a habitat of great importance for marine life including commercial fish and shellfish.

Because there are so many citizens concerned with the scientific data used or not used, and the potential for severe marine impacts, we earnestly request that you extend

United States Navy  
Page two  
March 11, 2009

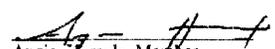
the public comment period to May 29, 2009. This will allow for further public notification and will avail the Navy time to provide answers to citizens' concerns.

Respectfully,

Board of County Commissioners  
Island County, WA

  
John Dean, Chairman

  
Helen Price Johnson, Member

  
Angie Homola, Member

95 Eagles Roost Lane  
Lopez Island, WA 98261  
March 7, 2009

Mrs. Kimberly Kler  
NWTRC ES/OEIS  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle  
Silverdale, WA 98315-1101

Dear Mrs. Kler:

It is my understanding that the U.S. Navy is proposing an increase of training activity on the coast of Washington State.

I am a resident of Lopez Island in the San Juan Islands which will be affected directly by the increased takeoffs and landings from the not too distant Whidbey Naval Air base. I am concerned about the anticipated increased number of over flights of San Juan County and the noise levels that will result from the increased traffic. Some of the increased noise is expected to be the result of replacement of the EA6-B Prowlers by the noisier E-18 Growlers. Training on the coast with live ammunition is also a concern.

Is this increased training necessary at this time? Do we really need to replace the Prowlers with Growlers? I would like to see our financial resources transferred from this war preparedness activity to sustainable long-term jobs and industries which might result in a more peaceful world.

I would urge you to reconsider the planned Whidbey Naval Air base anti terrorism activity.

Sincerely yours,

  
Charles Janeway, MD



**United States Navy  
Public Hearing Comment Form**

**Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement**



April 10, 2009  
Kassandra Kersting  
1322 Port Williams Road  
Sequim, WA 98382

Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

1) Submitting your comments via the project Web site at  
**www.NWTRangeComplexEIS.com**

2) Mailing this form to:

Naval Facilities Engineering Command North  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box  
if you would like to  
receive a CD copy of the  
Final EIS/OEIS. Provide  
your mailing address

**All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.**

Name: Janet E. Johnson

Organization/Affiliation: \_\_\_\_\_

Address:\* 556 NE 20th Pl.

City, State, Zip Code: Newport OR 97365

Comments: NO Navy takeover of National Guard.  
No expansion of Naval training. NO mine  
fields. NO sonar practice.

This is madness. We need to protect the  
environment, fishing industry, marine life,  
develop wave energy.

I am totally against any military  
activity off the Oregon coast.

Janet E. Johnson

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

Re: Northwest Training Range Complex:

Many of the request I will make are the same as others so I am putting my personal remarks now. I can not help but wonder what earth you expect to be able to live on when this earth is no longer viable. There are dead spots in many places on our earth. That the earth can sustain the damage being done is no longer debatable by unbiased scientists and is observable by the common person.

I request that none of the Alternatives offered in the Navy's DEIS be accepted. There is already a level of damage to the earth and its species that is to me unacceptable. To increase the level of destruction is not acceptable.

I request that the Navy and all military cease the use of depleted uranium. To poison the earth and all life dependent on the earth is not acceptable to me. You are poisoning yourselves.

Ban at sea dumping, set aside the Olympic Coast National Marine Sanctuary from all training uses and cease sonar exercises in Puget Sound and Haro Strait. Avoid as much as human and technically possible, killing, and harming whales and the creatures of the sea.

I also request the Navy's support of an establishment of A Department of Peace so that in time, with Gods help it will no longer necessary to kill and destroy humans, animals and the very earth that sustains us.

Blessings,

Kassandra Kersting

Kassandra Kersting, LMP

**United States Navy**  
**Public Hearing Comment Form**  
**Northwest Training Range Complex**  
**Environmental Impact Statement /**  
**Overseas Environmental Impact Statement**



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
 1101 Tautog Circle, Suite 203  
 Silverdale, WA 98315-1101  
 ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: Jerome "Benji" Kiff

Organization/Affiliation: Healdsburg Tribune

Address: 4015 Alexander Vly Lane

City, State, Zip Code: Healdsburg, CA, 95448

Comments: Please do not harm the ocean's whales & dolphins whose brains bleed & whose communication + directional systems get harmed when you do sonar testing.

Watch PBS' Costello's program on the Beluga whales. It was on PBS this evening. Please help save these marvelous creatures.

note: This enclosed column is in H.A. Tribune Apr. 9, 2009, I am the author.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

\*Provide your mailing address to receive future notices about the Northwest Training Range Complex EIS/OEIS.

My mother taught me to love flowers and gardening; a quiet, intense young Sophomore boy taught me to love whales. I was working in the Career Center at Healdsburg High School when the boy, Eddie Burton, came in and said, "Mrs. Kiff, I have an idea for a field trip - whale watching!"

Inwardly, I began to wonder how I could connect any careers with whale watching but the earnestness and excitement of Eddie was too much to ignore.

"That is a great idea, Eddie, let me get information about it."

Since it was my job to fill any students' interest in the career(s) of their choice by exposing them to books, pamphlets, college catalogs, guest speakers, and, yes, field trips, I needed to know where their interests were. In the beginning of each school year, I would have every student fill out a questionnaire and list their first three career interests. Most of them took it seriously and that information guided me as to what programs and/or speakers to invite to talk to the students.

So, after perusing the career information provided by the student body, I found that about twenty students had an interest in marine biology or oceanography. If I could find an excursion boat I probably could come up with the students to go aboard.

Of course, I discovered that there were plenty of whale-watching trips which I never knew existed, let alone participated in. But, all that changed as one sunny day the students, my oldest son, Joel, and I boarded the Merry Jane out of Bodega Bay with a whale watch guide and a package of Meridian. (I had to get permission from every parent to give it to their child thirty minutes before the boat left the dock and no one got seasick because of it.)

That day was a life changer. From that trip on, I have always read anything I could about whales and, with my daughter, Sarah, we enrolled in a fantastic marine mammal biology class at SRJC a few years later. It was taught by Dr. Bob Rubin and he is most probably responsible for many, many folks in Sonoma County taking up the cause of the whale and other assorted creatures of the sea.

I know that whales are a long way from a farm garden but the news that the Navy is resuming their sonar testing in waters off Northern California is just another irritating reminder that we humans should not mess up the planet any more than we have. Why can't we keep our damaging practices confined to the land for goodness sake? At least on land we have a chance to sop up the problem before it floats away, like the landfill issue, the mining hazardous waste, the river dams, overland pipe lines.

In the vast ocean, it seems such an insignificant act to just toss some nuclear waste in a drum into the depths where our secret will be kept and no one will be wiser. But, the creatures off the Farallon Islands know the difference.

The Navy needs to practice their sonar from their submarines. They try really hard not to blast it near any whales or dolphins whose communication, memory, direction are all dependent upon their sonar ability. I liked the quote in the S.F. Chronicle this morning from a lady at a public hearing in Mendocino when she listened to the Navy representative explain that they needed to test their sonar in

order to wage war. She answered something to the effect that they had already learned well enough how to wage war. They should practice waging peace now.

The Gray whales the day of our first excursion were exceedingly friendly and the tour guide was blown away by one of the females who kept following in the wake of the Merry Jane, even diving under it on one side and emerging on the other. We, of course, being all "freshmen whale watchers" couldn't initially appreciate his excitement. We assumed whales always acted like this. But, he succeeded in convincing us that he had never encountered such friendliness in a Gray before and that what we were witnessing was truly amazing.

Sarah and I went on numerous other excursions with Dr. Rubin's class: to Anyo Nuevo Park to see the elephant seals; to Steinhart Aquarium; and at least three other sea trips out of Monterey Bay and Bodega. Out from Monterey Bay we were all greatly taken by the sea otters, floating on their backs in the kelp, carefully holding an abalone shell. An hour or so later we spied a Blue whale, the one that comes up smiling when it breaks the surface of the sea.

I've never been to Hawaii so I cannot marvel at the Humpback Whales that rise completely out of the water, spinning and smacking the water. I've only seen them in pictures but I know that many of you, readers, have watched them in wonder.

And speaking of wonder, I wonder if you will join me in contacting the United States Navy Northwest Training Range Complex (NWTRC) and submit an opinion by April 13<sup>th</sup>? They have a web site, which you should check out: [nwtrangecomplexeis.com](http://nwtrangecomplexeis.com) and an address by snail mail:

Naval Facilities Engineering Command Northwest

1101 Tautog Circle, Suite 203

Silverdale, WA 98315-1101

ATTN: Mrs. Kimberly Kler - NWTRC EIS

There is a public comment form that you can use, but I'll be darned if I can download any such animal from that Navy web site, so, there are copies at the Tribune office in Healdsburg for your convenience.

And, that neat kid, Eddie Burton, who was responsible for opening up the hearts and minds of so many of us regarding those gentle giants of the sea - he grew up to be the talented artist he was in high school, but he never saw any whales that day. His dad told Eddie that he was needed to work on the building of their home and so he couldn't go on the field trip. When Eddie told me this, a day or two before the trip, I thought I'd cry. It was, and still is, one of the saddest moments of my life, just recalling it, and that was twenty years ago!

Eddie, if you're out there, call me up some time and tell me you've gone whale watching many, many times. (And, I think I'll just send this entire story to the Navy by clipping it to their form.)

February 13, 2009

Dear Sir,

I am a resident of Duquella Bay flight area and I am very concerned about the proposed increase of Navy flights over our area. I understand that flights cannot be doubled. The increased noise over extended periods of time would make it almost impossible to do outside. Also, the value of my property would decrease significantly because of these over-flights. There are also problems with the effect the flights will have on the local environment - and over the large area in which noise was possible to change from these planes will take place. I request that there be 100 increase in flights over my area.

Sincerely: Marjory Kimball  
550 Birch St.  
Oak Harbor, WA 98277

Marjory Kimball  
550 Birch Street  
Oak Harbor, WA 98277

EVERETT WA 982

17 FEB 2009 14 31



Naval Facilities Engineering Command NW  
1101 Tautog Circle  
Silverdale, WA

98315-1101

Attn: Mrs Kimberly Kler  
NWTRC EIS/DEIS

1515+1101



United States Navy  
**Public Hearing Comment Form**  
 Northwest Training Range Complex  
 Environmental Impact Statement /  
 Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Depositing this form at the Comment Table before you leave tonight.
- 2) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 3) Mailing this form to:

Naval Facilities Engineering Command Northwest  
 1101 Tautog Circle, Suite 203  
 Silverdale, WA 98315-1101  
 ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: Susan Kroff  
 Organization/Affiliation: \_\_\_\_\_  
 Address\*: 460 Todd Road  
 City, State, Zip Code: Ukiah CA 95482  
 Comments: \_\_\_\_\_

- ① In view of our local, national + worldwide economic collapse, I believe that wasting resources cannot be justified. This includes blowing up perfectly good bombs as well as destroying any marine life's fisheries.
- ② Release of toxics in air and water is unacceptable under any circumstances.
- ③ Torturing marine life + marine mammals with sonar and explosions is abhorrent. Your tolerance of it lowers the bar of behavior in the society.
- ④ End these practices, do not expand them.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

\*Provide your mailing address to receive future notices about the Northwest Training Range Complex EIS/OEIS.

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All comments must be received no later than ~~February~~ <sup>March</sup> 11, 2009, to be considered in the Final EIS/OEIS.

Name: Kathleen Kolody  
 Organization/Affiliation: CITIZEN  
 Address\*: PO BOX 312  
 City, State, Zip Code: OCEANSIDE, OR. 97134  
 Comments: THANK YOU - US NAVY FOR

ALL YOUR SERVICE! There must be a reason to expand maneuvers in the Northwest - China? North Korea? So I trust President Obama why you need to increase your work - However, I AM VERY CONCERNED about effects on MARINE MAMMALS. The materials provided on web site & at meeting did NOT provide enough detail. If NOAA standards are used for protecting our sea lions, this is INADEQUATE, as they allow

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.



NO NEED FOR REPLY  
SAVE RESOURCES

Marc Komer  
17400 Shafer Ranch Rd.  
Willits, CA 95490

Naval Facilities Engineering Command Northwest,  
1101 Tautog Circle, Suite 203  
Silverdale, Washington 98315  
Att: Ms. Kimberly Kier - NWTRC EIS

Re: Against Naval Warfare Testing Program Expansion

March 29, 2009

Dear Ms. Kier:

The United States Navy requests permissions from the United States Department of Commerce (NOAA), to kill thirty two species of marine mammals over five years in their Pacific Ocean Warfare testing program. The expansion of their area of operation will include the State of Washington, the State of Oregon, part of the state of Idaho, and Northern California. The final date for public comment is April 13, 2009.

These designated areas will also include large areas of the Pacific Ocean from California to the State of Washington and areas along the border between the United States and Canada. Once implemented there is no date specified in E.I.S. for this Navy Warfare Testing Program to end although various documents show that this is a five-year Navy Warfare Testing program.

The United States Navy has also published an application, as an addendum to their program, in the U.S. Federal Register, dated March 11, 2009. This application from the Navy "...requests authorization to take individuals of 32 species of marine mammals during upcoming Navy Warfare testing and training to be conducted in the NWTR areas off the Pacific coasts of Washington, Oregon, and northern California over the course of 5 years."

The Navy Warfare Testing Program will "...utilize mid- and high frequency active sonar sources and explosive detonations. These sonar and explosive sources will be utilized during Antisubmarine Warfare (ASW) Tracking Exercises, Mine Avoidance Training, Extended Echo Ranging and Improved Extended Echo Ranging (EER/IEER) events, Missile Exercises, Gunnery Exercises, Bombing Exercises, Sinking Exercises, and Mine Warfare Training..."

The Pacific and Atlantic Ocean belong to all the people of the world not just the United States. This "taking" of marine mammals negatively impacts the entire ecology of our oceans and the life in them which feeds large numbers of people and other species around the world. Now the United States government has decided that California, Oregon,

the killing of them! This is unacceptable AS they will go the way of the MANATEE whose "SPORT FISHERMAN'S" boat propellers killed off MANY almost to extinction.  
SEA LIONS NEED SALMON TO SURVIVE!  
MAN CAN ALTER HIS EATING HABITS.  
NAVY NEEDS HIGHER STANDARDS TO PROTECT AND NOT HARASS MARINE MAMMALS & BIRDS. PLEASE!

Washington, and Idaho, and the Pacific Ocean marine life in those areas, are expendable in order to test more war weapons of mass destruction. It should be noted that the list of toxic chemicals is a long one as noted in the Navy E.I.S. Depleted uranium, red and white phosphorus, and a whole host of chemicals known to be toxic not only to man, but to marine life, are being served up on the "Navy Warfare Chemical Menu" that will contaminate our air, water, and soil.

White Phosphorus is just one of the chemicals on Navy Toxic Menu: Berkowitz et.al (1981), in assessing the potential hazards associated with the use of phosphorus smoke munitions, reported that White Phosphorus residues in aquatic systems can be extremely toxic. Berkowitz stated that the deposition of washout of... White Phosphorus, especially in water bodies may create exposure risks to resident finfish, invertebrates and waterfowl, even if resultant White Phosphorus concentrations are in the low ppb range. 1996)

The ocean areas off the coast of Northern California are not a suitable venue for the use of chemical tests, nor is it efficacious to test live ammunition, explosions of aerial or underwater ordnance. Aquatic mammals, fish, invertebrates and birds are resident and migratory animals in these waters that likely will be negatively impacted. Furthermore, the possible resulting damage to downwind human population seems highly suspect and may be the subject of future litigation.

I therefore implore you to not expand the Navy's test areas.

Yours truly



Marc Komer

Cc: NOAA Public Comments  
Mendocino Board of Supervisors

Feb. 13, 09

Comment on Navy training Plan:

STOP!!!

Needless unseen but deadly  
Consequences of New Weapons  
Systems, involving ships, jets  
Submarines and advanced  
Sonar and the sinking of  
depleted uranium munitions to the  
Sea Floor.

Have you no sense of  
what havoc can occur to our  
environment in our Beautiful but  
Fragile Waters of Puget Sound?

My Son in law has already  
suffered the effects of depleted  
uranium usage in the  
1st Gulf War.

A Veteran.

George Komer



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Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: Rebecca Kress  
Organization/Affiliation: Concerned Citizen  
Address\*: POB 242  
City, State, Zip Code: Ukiah, CA, 95482  
Comments: See Enclosed Letter

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

\*Provide your mailing address to receive future notices about the Northwest Training Range Complex EIS/OEIS.

*Rebecca Kress*

POB 242  
Ukiah, CA. 95482  
[riverkress@hotmail.com](mailto:riverkress@hotmail.com)

April 7, 2009

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA. 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Dear Mrs Kler,

*I am writing to you today to ask that the United States Navy curtail it's proposed increase in training activities on the Northwest Training Range Complex. I was not aware of the public meeting held here in Ukiah until 5 minutes before it started, and I stayed for the 5 hours the meeting lasted. The room was full of concerned citizens like myself, and many of them stated they had learned about the meeting just by chance and at the last minute, as well. Many drove 1-2 hours to attend.*

*Very clear signals were given to the Navy that evening that the communities in this county will not stand for the loss of marine life and habitat, noise, pollution, and other detrimental behaviors proposed by the representatives who came to speak with us. Every single person in the room except for one opposed the idea that the Navy could "take" the lives of even one marine mammal, let alone 32 species and 3.5 million over the next 5 years! Even if it's just potential effects, they don't stop at some imaginary line in the ocean. I didn't believe you, Mrs. Kler, when you stated that the Navy was "a steward of the environment"! Actions speaks louder than words, and the consequences of your actions will and have proved that everything is connected.*

*Yes, we need a strong military. As a U.S. veteran, I am aware of the need for national security, but at what cost? How about conducting training in a dead zone? How do you mitigate death? How do you justify "ambient" noise, like it has no potential harmful effects on all wildlife? If the Navy's mission is to prepare for war, what would it take to change the mission? How about cleaning up the North Pacific Gyre? Are we really looking for oil?*

*It seems strange that you would have only one or two government agencies, including the National Oceanic and Atmosphere Administration, who is responsible for the largest fish-kill in U.S. history, oversee your operations. We cannot trust their reports, and this is not an adequate check and balance system. More than NOAA and Fish and Wildlife Service needs to be involved, and just because you've been there for years doesn't mean you have to stay. The public has the right to know if the earth's natural resources are being squandered.*

*Also, it was stated that there "may be" an increase of unmanned aerial systems from 12 to 112 missions, "most likely" in Puget Sound. There "may also be" a 57% increase in training activities. I have to say that much of what was stated at this meeting was so ambiguous, and left the door open for the Navy to do basically what ever it wanted wherever it wanted. Commander John Mosher stated, "The Navy is vague intentionally - bad weather, mammals, ships - may drive us to different complex areas". What reassurance do United States citizens (who you work for) have that you're not harming animals and plants, or polluting our waters? How would we even know? It was stated that what went on in the last 10 years is what we can expect - most of us didn't even know about that! And it was hard for me to believe that Commander Mosher is a kayaker and diver. Most people who dive love the oceans, and would go to great lengths to protect them.*

*You have access to some of the best science on the planet, and are either in denial or are not taking advantage of a great resource. Thank goodness the Navy is under greater scrutiny. In the next 5 years, whales will migrate 10 times - how do we know you won't hurt them? In addition, the Pacific Coast is an upwelling area, making it nutrient-rich and attracting diverse populations of sea life, providing food and oxygen - allowing life to exist. Nearly all the marine resources we depend on come from a few small regions of the total ocean.*

*What about white phosphorous, sonar, EM's, CO2 and nano-particles? Bioaccumulation of drift in our water and air? Do bombs add to global warming? Why have more than one pod of whales stranded themselves in your complex and died? The Navy has a toxic legacy, and how do we know if the Navy cleans up it's mess? Is it even cleanup-able?*

*Our planet and oceans have almost reached the tipping point. The point of no return. We've lost 90% of our big fish, and 40% of the oceans and seas have grave damage done to them. We have dead zones around the world. Without the oceans, we cannot survive.*

*As I listened to everyone in the room, I kept looking at our county logo on the wall, which depicts an orchard, a wave, and two redwood trees. We are rural communities who value the incredible bounty and serenity this area has to offer. The wave represents our Pacific Ocean which we rely on for food, recreation, diversity, and life itself. Please do not compromise the values that we hold in the highest esteem. And please do not underestimate the tenacity and power dedicated community members hold. An ounce of prevention is worth a life worth living.*

*Sincerely,*

*Rebecca Kress*  
Rebecca Kress

Greg Krouse

Box 42, Philo  
CA 95466

707.895.3842 Page 1 of 1  
gkrouse@saber.net

3/31/2009

New Facilities Engineering Command NW;  
1101 Tautog Circle-Suite 203  
Silverdale, CA 98315-1101  
Attn: Mrs. Kimberley Kier

RE: Navy Testing on North Coast of the US.

Attention Sirs, Ms.s and Officers

This is my response to the Navy EIR. I feel that your study does not realistically evaluate the true impact of your testing proposal on threatened and unthreatened marine species, consider existing marine protection programs, nor does it consider the impacts on those citizens, who inhabit the Pacific Ocean and utilize it for their welfare. Your testing and game plan has too many problems in it. It puts too much at risk in our bountiful ocean and could bring some of those toxins on shore. I am concerned about the impacts on marine mammal communication (many considered endangered,) friendly fish kills by explosive shock, toxicity of phosphorous, fuel leakage, and depleted uranium. I am also concerned about the impact on our commerce, which is focused on our ocean including tourism, sea weed harvest, and fisheries. Furthermore, I am worried about the impacts of weather modification and atmospheric releases used to enhance communication and radar. Aluminum and barium and the bacteria they bring down is not good for our respiration or the animals that live here, nor is the exhaust from over flights or missiles that may release propellants into our air and ground water. Depleted Uranium is not necessary as Tungsten alloys are just as effective and do not have the radioactive nature that reeks havoc on all life. Many European countries use the safer tungsten technology. Depleted Uranium is dangerous according to testing and the reports of Veterans where this weapon was used. I do not want the Gulf war here. You can use virtual simulation to train your soldiers, air personnel and sailors at a significant savings to the American people and the resources that get consumed in weapon testing. I value the air, water and natural organisms and resources that make up this coast line and do not want it compromised.

The North Coast of California and coast of Oregon and Washington are strong upwelling of fresh clean salt water that provides a unique ecology that I do not want to see compromised.

I am aware of the negative impacts in Hawaii, Puerto Rico and other testing sites and we do not want them here. Therefore we respectfully ask you not to do this testing in our precious ocean.

Thank you for hearing concerns,

Greg Krouse



THEODORE R. KULONGOSKI  
GOVERNOR

February 18, 2009

The Honorable Donald C. Winter  
Secretary of the Navy  
1000 Navy Pentagon  
Washington, DC 20350-1000

Dear Secretary Winter:

I am writing in regard to the draft Environmental Impact Statement/Overseas Environmental impact statement (EIS/OEIS) for the U.S. Navy's expanded use of the Northwest Training Range Complex off the Oregon coast. I recognize the importance of ensuring that our armed forces are well trained. Unfortunately, numerous Oregonians have contacted my office expressing frustration with the methods used by the Navy to inform them of the proposal. Many are also concerned about the potential effects that increased naval activity would have on marine wildlife, ocean access and safety, and water quality.

While I appreciate the recent decision to extend the EIS/OEIS comment period to February 18, 2009, one additional week does not provide the time required for the public to fully review and prepare comments on 1000 pages of technical information. Due to the Navy's failure to meaningfully engage the public in the development and review of this extremely complex proposal, I ask that you extend the comment deadline a full 60 days to April 11, 2009.

The history of the Navy's outreach to Oregon residents on the Training Range Complex is an important factor in my decision to request a longer comment period. Practically the entire coast of Oregon is affected by the proposal, yet only two public meetings have been held: one during scoping and one recently as a part of the draft EIS process. According to Navy representatives, the scoping meeting in the small community of Depoe Bay drew only four or five residents. The Navy's failure to conduct more extensive notification and outreach contributed to the lack of Oregonians tracking the proposal as it evolved. When the Navy held their January 30 public meeting in Newport on the draft EIS, many people were learning about this project for the first time.

As Navy representatives witnessed during their visit to Oregon last month, local residents and state resource managers had many questions about the draft EIS. Therefore I also ask that two additional public meetings be held along the Oregon coast as soon as possible to allow for

STATE CAPITOL, SALEM 97301-4047 (503) 378-3111 FAX (503) 378-4863 TTY (503) 378-4859  
WWW.GOVERNOR.STATE.OR.US

The Honorable Donald C. Winter  
February 18, 2009  
Page Two

further exchange of information and perspectives. I will ask my staff as well as representatives of several state agencies to attend those meetings in order to encourage a productive dialogue.

Please anticipate receiving formal comment letters from state agencies such as the Oregon Department of Fish and Wildlife and the Oregon Department of Environmental Quality regarding the Navy's activities proposed in the draft EIS. I encourage you to seriously consider their concerns and accept their recommendations. Should you have any questions about the State of Oregon's interest in the Northwest Training Range Complex, please contact Jessica Hamilton on my staff at (503) 986-6543.

Sincerely,

  
THEODORE R. KULONOSKI  
Governor

TRK:jh:ab  
c: Mrs. Kimberly Kler, Department of the Navy

**United States Navy**  
**Public Hearing Comment Form**  
**Northwest Training Range Complex**  
**Environmental Impact Statement /**  
**Overseas Environmental Impact Statement**



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Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler – NWTRC EIS

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All comments must be received no later than February 18, 2009, to be considered in the Final EIS/OEIS.

Name: Christine Laing \_\_\_\_\_

Organization/Affiliation: Private citizen \_\_\_\_\_

Address:\* 729 La Cana St. \_\_\_\_\_

City, State, Zip Code: Coupeville, WA 98239 \_\_\_\_\_

Comments: . I can only support the "No Action Alternative."

Everyone in Washington State knows that Puget Sound is a very vulnerable habitat. The health of the Sound has been continually deteriorating over the years. Declining fish populations and toxicity of sea mammals are a concern. For example, orcas now have so many toxic contaminants in their bodies, that if a dead one washes up on shore, its carcass has to be carefully disposed of in a toxic waste dump. They are vulnerable to harm from sonar. And Orcas are only one species that would suffer. All would suffer, we just don't know to what degree.

Recently I attended the daylong conference sponsored by WSU called "Sound Waters." It was a full day of classes held where I live, on Whidbey Island, on how as citizens, we can all work together to save and improve Puget Sound. Citizens are doing a whole wide variety of things to improve the health of Puget Sound.

Many of us on Whidbey Island do a wide variety of things to help preserve ocean life in general and the health of Puget Sound in particular. We use minimal pesticides because eventually those chemicals end up in the sea. We bring our own bags to the grocery store to avoid plastic bags which so often end up in the sea causing the death of sea turtles and other creatures. We have learned not to collect creatures from tide pools. We carefully clean up after our dogs on the beach. At low tide we avoid stepping on seaweed because of the critters that live underneath. When we pick up rocks to explore what's underneath, we put it back in its original position so that those who hide and live beneath the rocks won't be disturbed or exposed. People who live on the water's edge and along stream banks do many more things to prevent pollution of the water. Many people on Whidbey Island volunteer time as Beach Watchers and Beach Stewards.



People here are much invested in the health of Puget Sound.

But what is the point of citizens being so conscientious if the Navy does wholesale damage to the Sound with increased explosives and damage to marine life with increased sonar? I feel that for the Navy to even consider expanding its activities in this area, shows that it is totally out of step with awareness and desires of people who live here. To increase testing of weapons and sonar is an uninformed step backwards. We need to do everything possible to preserve Puget Sound, not destroy it.

I have carefully read the Navy's materials on this proposal. I understand the need to train rookies on weaponry. I also understand the need to test out new technologies. But the Navy has not shown to me a reason to increase its activities in this area. I see no urgency to increase these tests, but I do see an urgency to reduce harm to marine wildlife and the quality of the water in Puget Sound.

Therefore, I support the "No Action Alternative."

Respectfully Yours,

Christine Laing

March 30 2009

comments from Antonia Lamb  
re: NWTRC EIS/OEIS, volumes 1 & 2  
(draft U.S. Navy Northwest Training Range Complex Environmental Impact Statement/Overseas Environmental Impact Statement)

Reading the EIS I was struck by how this enormous number of words & terms could be used so vaguely. I found a constant lack of clarity about just exactly what would be done, where, and a 'hedging of bets' that allowed pretty much anything to be done anywhere to the ocean and the air above it by the Navy from Washington down to the edge of northern Mendocino County in the vague name of "national defense" and "security."

The greatest dangers we face now are the rampaging pollution of our environment, devastating climate changes threatening all life as we know it, and the continuing arrogance of those who don't clean up their mess.

Life began in the ocean and life is now dying in the ocean. This is not just about "not in my backyard." The entire Northwest Pacific is one of the richest and most productive marine ecosystems on earth. We need to protect it, not destroy it in the name of saving "us" from "them".

The Navy (indeed the whole defense department) needs to downsize its destructive experiments & focus its resources on the protection & restoration of the marine environment which it so cheerfully damages with bombs, white phosphorus, depleted uranium rounds, etc.

The Navy needs to clean up its mess. To pause & accurately assess the damage it has already done and continues to do to the precious waters that give us life and be part of the solution, rather than the problem...

This EIS belittles or ignores the gross environmental damage to the ocean created by Navy war games & weapons tests. The vagueness continues with statements like "may have coastal effects" (re Washington) or (re Oregon & California) "the Navy has determined that its Proposed Action will have no coastal effects." We are not told what action is proposed or how they arrived at their determinations.

There is no description, for instance, of just how the past and present use of so-called depleted uranium rounds will be mitigated in terms of the marine environment. (nor white phosphorus, sonar, et al) Nobody knows just how the phytoplankton, the whales, the fish & the rest of the life of the ocean absorb and respond to these toxins.

The Navy should withdraw this EIS and do its homework. Do the research to scientifically describe what actually has happened to the marine environment when different types of weapons testing etc are done, and clarify its objectives in the light of the immediate, devastating environmental crisis we face. Then let's discuss this with all the info in the table...

Sincerely

Antonia Lamb

Antonia Lamb • PO Box 395 • Mendocino CA 95460 • (707) 937-0119 • antonia@mcn.org

United States Navy  
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ATTN: Mrs. Kimberly Kler - NWTRC EIS

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All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: Col Robert A. Leach, USAF (Ret) \_\_\_\_\_

Organization/Affiliation: Guemes Island Resident \_\_\_\_\_

Address: \* 6151 S Shore Rd \_\_\_\_\_

City, State, Zip Code: A tacortes WA 98221 \_\_\_\_\_

Comments: As the father of a Naval Aviator, and as a retired Air Force officer among who's duties was command of an RC-135 squadron I appreciate the absolute need for the best training possible for aircrews. The value of an integrated and enhanced training range, specifically as proposed for the NWTRC, is that it will provide a broad area (sub-surface to exo-atmospheric) in which to train and exercise multi discipline platforms in a fully integrated fashion. The impact of the proposed enhancements to the NWTRC that will be apparent to me and my good neighbors on Guemes Island will differ little from that experienced today and will at worst be a mild and transient inconvenience. I am far more concerned with the potential costs—both as a citizen of the United States and the father of a Naval Aviator, if we should deny adequate training to weapon system operators in the coming years. I support the full range of enhancements proposed for the NWTRC.

*Robert A Leach*

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

*RE: article in The Whidbey Examiner  
Mar. 25, 09*

*Dear Kimberly,*

*Just a note to tell you that this family has no problem with the training and experiments that the USN is/will conduct in the Pacific Northwest area.*

*We appreciate all that you do to keep us safe.*

*Dan & Nicole Leach*



**OFFICE OF LINCOLN COUNTY LEGAL COUNSEL**

225 West Olive Street, Room 110  
Newport, Oregon 97365  
(541) 265-4108  
Fax: (541) 265-4176

**Wayne Belmont**  
County Counsel  
**Kristin Yuille**  
Assistant County Counsel  
**Janet Harrison**  
Paralegal

**Congress of the United States**  
**Washington, DC 20515**

February 11, 2009

Att: Mrs. Kimberly Kler  
NWT RC EIS  
Naval Facilities Engineering and Command Northwest  
1101 Taulog Circle, Suite 203  
Silverdale, WA 98315-1101

RE: Northwest Training Range Complex / Environmental Impact Statement / Overseas Environmental Impact Statement

Dear Ms. Kler:

On behalf the Lincoln County, Oregon Board of Commissioners and joining Oregon's Congressional Delegation (see attached letter) in requesting an extension of the comment period for the above referenced EIS/OEIS in order to fully review and comment on the proposal.

Sincerely,

Wayne Belmont  
County Counsel

Enclosure

J:\LC\EAMES\Wave Action\Navy Proposal\let navy proposal.doc

February 6, 2009

The Honorable Donald C. Winter  
Secretary of the Navy  
1000 Navy Pentagon  
Washington, DC 20350-1000

Dear Secretary Winter:

We are writing to request an extension to the February 18, 2009 public comment deadline set for the draft Environmental Impact Statement/ Overseas Environmental impact statement (EIS/OEIS) for the U.S. Navy's expanded use of the Northwest Training Range Complex off the Oregon coast.

The EIS/OEIS was released on December 29, 2008 with an electronic copy available on the Northwest Training Range Complex website. However, many citizens who live in potentially affected areas along the Oregon coast have expressed concern and frustration at the lack of public notice and the limited time to provide official comments to the U.S. Navy. The EIS/OEIS is 1,068 pages of dense technical language and yet most Oregon coast residents were not aware of the proposal's existence until a January 30, 2009 public meeting in Newport, Oregon. In addition, coastal residents have raised questions and serious concerns about the impact of the Navy's plans on coastal fisheries, tourism, ongoing efforts to develop alternative energy sources, and marine mammal research.

We believe that successful and innovative projects in Oregon require an open, fair communication process between private businesses, government, and citizens. In light of the complex issues at stake and unanswered questions regarding the potential impact of the Navy's plans, we ask that you both extend the public comment period to April 11, 2009 and hold at least two additional public meetings in Oregon, including one in Tillamook County, to ensure that those who may be affected and wish to comment on the project may do so.

We appreciate your immediate attention on this matter. If you have any additional questions, please contact Alison Craig in Congressman Schrader's Oregon office at (503) 588-9100.

Sincerely,

RON WYDEN      JEFF MERKLEY      KURT SCHRADER  
United States Senator      United States Senator      Member of Congress

EARL BLUMENAUER      PETER DEFAZIO      DAVID WU  
Member of Congress      Member of Congress      Member of Congress

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**Wayne Belmont**  
County Counsel  
**Kristin Yuille**  
Assistant County  
Counsel  
**Janet Harrison**  
Paralegal

March 9, 2009

Via Electronic Comments and Mailed Copy

Att: Mrs. Kimberly Kler  
NWT RC EIS  
Naval Facilities Engineering and Command Northwest  
1101 Taulog Circle, Suite 203  
Silverdale, WA 98315-1101

RE: Northwest Training Range Complex / Environmental Impact Statement (EIS) / Overseas  
Environmental Impact Statement (OEIS) / Comments of Lincoln County Oregon

Dear Mrs. Kler:

On behalf the Board of Commissioners, Lincoln County is submitting the following comments concerning the above referenced EIS and OEIS. Lincoln County joins with many local groups and individuals commenting on the proposal and specifically references, supports and incorporates the comments of the Port of Newport and Dr. Bruce Mate concerning the proposal into its position on this matter. We offer the following additional comments:

1. There is clearly a lack of understanding and knowledge expressed in the EIS and OEIS about both the operations of, and the potential conflicts with, Oregon's commercial fishing fleets. A glaring example of that basic lack of understanding is the inability to distinguish between the trawl and troll fleets as it relates to bottom fish. That is unacceptable. Commercial fishing involves different gear, fishing strategies, and locations depending on the ocean resource being harvested. The EIS / OEIS inadequately identify those resources and harvesting techniques and locations and therefore fail to adequately address potential conflicts. Much more work is needed in this area in both risk assessment and mitigation. The Port of Newport's letter stresses the importance to Oregon Coastal economies of the fishing industry. That must be recognized and protected. There needs to be increased communication between the Navy and Oregon's commercial and recreational fishing interests for this to go forward.

2. Marine mammal impacts and integration with the Marine Mammal Act are concerns that need to be further addressed. The comments of Dr. Bruce Mate clearly identify deficiencies in the assessment of risk and in mitigation that must be corrected. We support Dr. Mate's comments and concerns.

Mrs. Kimberly Kler  
Navy EIS/OEIS  
Page 2

3. We are very concerned with the potential environmental and economic impact of planned residual marine debris (from shells and other sources) from the increased training proposed. A much more thorough examination of the impacts on our ocean ecosystem is needed.

Thank you for the opportunity to submit these comments during the expanded comment period. Further opportunities to provide detailed information and understanding of our concerns, and to insure that adequate assessment of the proposal occurs before decisions are made, remains a priority for Lincoln County. Given the width and breadth of other comments made by concerned citizens, groups and local and state governments, we request that the Navy further expand its public involvement process to insure that proper stewardship of the ocean resources remains the first priority while meeting the Navy's training needs.

Sincerely,

Wayne Belmont  
County Counsel

- c. Lincoln County Board of Commissioners  
Senator Ron Wyden  
Senator Jeff Merkley  
Congressman Kurt Schrader  
Governor Ted Kulongoski  
Port of Newport  
Dr. Bruce Mate

**United States Navy  
Public Hearing Comment Form**  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: Ruth Lipscomb

Organization/Affiliation: Board member, Oregon State University Foundation, concerned citizen

Address:\* 103 Cascade Key

City, State, Zip Code: Bellevue, WA 98006

Comments: \_\_\_\_\_

As a lifelong resident of the Pacific NW, and as a supporter of the Oregon State University Marine Mammal Institute, I am shocked that the Navy is considering increasing the use of high energy sonar along the West Coast. I spent a week last year observing and learning about the migration and communication of grey and blue whales; I am convinced they are some of the most advanced mammals on the planet. Their numbers are dwindling and must be protected, especially from such senseless weapons of mass underwater destruction as high energy sonar.

With all the technological resources available to the Navy, can't you figure out a way to get the results you want without causing untold damage to the most magnificent creatures in the oceans?

Please consider the long-term impact of these "experiments" and limit them to the absolute minimum necessary, both in volume, and in number of applications. Thank you for your consideration.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

**United States Navy  
Public Hearing Comment Form**  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Depositing this form at the Comment Table before you leave tonight.
- 2) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 3) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: Sherry Glaser Love + Sheba Love

Organization/Affiliation: Breasts Not Bombs

Address:\* P.O. Box 556

City, State, Zip Code: Albion, CA 95410

Comments: WAR PRACTICE LEADS TO GLOBAL WARMING  
SIMULATION ONLY!!  
NO BOMBING OFF NORTHERN CALIFORNIA !!!

THE DEFINITION OF  
PACIFIC

↓ ↓  
IS PEACE

No training for WAR - PLAN FOR PEACE

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

\*Provide your mailing address to receive future notices about the Northwest Training Range Complex EIS/OEIS.

Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)

Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

All comments must be received no later than March 11, 2009, to be considered in the Final EIS/OEIS.

Name: Leslie Lucco

Organization/Affiliation:

Address:\* 363 Morrow

City, State, Zip Code: Fort Bragg, CA 95437

Comments:

As a concerned citizen and resident of Fort Bragg, CA, I strongly object to weapons testing in the waters off our coast. This is a unique area known for productive upwellings, whale migration paths and sensitive fisheries. The community relies on what fishing remains plus tourism. These could be severely impacted by weapons testing.

*Leslie Lucco*



## MAKAH TRIBE

P.O. BOX 115 • NEAH BAY, WA 98357 • 360-645-2201



February 10, 2009

Kimberly Kler, Environmental Planner  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
Phone: (360) 396-0927

Re: Draft Environmental Impact Statement/ Overseas Environmental Impact Statement for the Northwest Training Range Complex

Dear Ms. Kler:

The Makah Tribal Council (MTC) appreciates the efforts of the US Navy in protecting our great country and recognizes that training must occur for our forces to be prepared for any and all threats. The Makah Tribe has many proud members who are Veterans of Foreign Wars and live in Neah Bay. The MTC recognizes the importance to the United States of maintaining strong armed forces through training. That said we hope to see that all training measures are conducted in as safe and responsible manner as possible to reduce risk to living marine resources to which the Makah Tribe depends.

The MTC would like to thank the Navy for previously extending an opportunity for consultation to the MTC prior to the release of the DEIS. Now that we have reviewed the document in some detail, it is apparent that there are a number of issues associated with the Navy's existing training exercises within our Treaty protected Usual and Accustomed Area (U&A) that we would like to present.

### Risk of Damage to Treaty Protected Area from Oil Spills

When our ancestors signed the 1855 Treaty of Neah Bay with the United States they ceded 300 thousand acres of forested lands to the United States in exchange to reserve the right to continue to derive our traditional lifestyle from the sea. Our treaty area extends west from Port Angeles, Washington approximately 60 miles along the Strait of Juan Fuca to Cape Flattery and then continues west into the Pacific Ocean approximately another 50 miles. Our southern boundary proceeds south from Cape Flattery along the Outer Washington Coast approximately 25 miles. It is the protection of our various

fisheries and marine resources that the MTC views as one of our fundamental responsibilities for our people and ancestors. Over one hundred and fifty years after we signed our treaty with the United States government, the Strait of Juan de Fuca has become a primary waterway route for oil tankers, cargo and passenger vessels and Navy ships bound to and from port facilities in Washington and British Columbia.

Being the “People of the Cape” situated in the northwest most corner of the contiguous United States, we understand our exposure to oil spill risk is high and is increasing. The Makah have the largest combined ocean fisheries of federally recognized Indian Tribes in the United States. Our Usual and Accustomed (U&A) marine treaty area is located at the crossroads of the Strait of Juan de Fuca and the Pacific Ocean. This places us at the entrance to a U.S. High Volume Port Complex, Canada’s largest port and the world’s third largest naval complex. These unique circumstances, combined with our experience as a “Resource Trustee” in addressing the impacts of the four largest persistent oil spills in Washington State history<sup>1</sup> totaling approximately 3 million gallons of oil spilled on our natural and cultural resources, afford us extensive experience in this field.

The MTC wishes to acknowledge the Navy’s contribution to the initial stationing of the Neah Bay rescue tug. We view the multi-mission capability of the rescue tug as an essential piece to the overall protection of the Washington outer coastal region from the impacts of oil spills. For over 15 years the MTC has expended tribal resources to work closely with federal and state regulators and industry representatives to improve the recognition of including tribal governments into their oil pollution policies. These efforts have resulted in significant improvement to the region’s oil spill capabilities and the appointment of Chad Bowe chop on behalf of the MTC to the Regional Response Team/NW Area Committee.

With the Puget Sound area being the homeport for the Navy’s third largest port complex means that commercial vessels are not our only source of risk. The largest oil spill to occur in Washington waters was a result of the Navy vessel General Meiggs. More recently, on August 4, 2006 the USS Nevada, a Navy Trident submarine based at Naval Base Kitsap-Bangor severed the towline of the tug Phyllis Dunlap and its barge at the entrance to the Strait of Juan de Fuca. The tug Phyllis Dunlap was transiting with two empty barges when the incident took place. This incident is very similar to one that occurred off of Cape Flattery in October 2003 when the US Navy sub Topeka separated an empty oil barge from its tow underscoring our diversity of risks. The MTC recognizes the Navy’s Supervisor of Salvage has tremendous expertise and equipment to respond to such incidents but only a nominal amount of those assets are stockpiled in the Pacific Northwest. As a result the MTC believes it is more likely that Makah fisheries and marine resources will be impacted by oil spills, as well as by response technologies such as dispersant use and shoreline remediation.

---

<sup>1</sup>(General Meiggs, 2,300,000 gallons in 1972; ARCO Anchorage, 239,000 gallons in 1985; Nestucca, 231,000 gallons in 1988, Tenyo Maru, 400,000 gallons in 1991)

After reviewing the Navy’s Oil Spill Contingency plan referred to in the DEIS it is the MTC’s belief that the Navy could improve the levels of equipment stationed near the Olympic Coast to mitigate their existing activities and assist in addressing the expansion being proposed which will increase the number of Navy vessels transiting through the Makah’s U&A. We have appreciated the relationship the Makah Tribe has maintained with Tammy Brown who has generously shared her expertise. We believe that this new proposal affords us an opportunity to implement some of the ideas that we have discussed with Tammy over the years and are prepared to bring this up in our consultation. Section 1-27- Describes Government-to-Government consultations and Agency briefings, while the concerns that were raised during these discussions are described, the document does not clearly state how these concerns were responded to in the DEIS.

#### Impacts to Tribal Fishing Rights

Any training activities that restrict fishing activity during important fishery seasons, or activities that damage fishing gear, could drastically affect the economic welfare of our treaty fishermen.

Some fishing seasons, like sablefish (black cod) and halibut have management schemes that limit fishing pressure by limiting fishing to small periods of time called fishing openers. We would like the Navy to ensure that Naval training exercises will not be conducted when they can exclude treaty fishermen from usual and accustomed grounds during important openers.

Section 2.6.2.2 states concrete and sandbag anchors will be deployed for a portable undersea tracking range and that the anchors will be left at the site after the end of the test. Concrete anchors are likely to persist in the environment and could damage trawl gear of treaty fishermen. Our treaty trawl fishermen have learned where they can tow safely without damaging gear through trial and error and knowledge passed from father to son or from fishermen to fishermen. Adding an anchor to an area that our fishermen would normally have considered a safe trawl area will increase the risk of damaging and possibly losing fishing nets. Sandbags are more likely to disintegrate and have a lower potential to damage fishing gear. To minimize possible impacts to our treaty trawl fleet could you please state in the FEIS where the anchors will be deployed? Further, it would be beneficial for an analysis to be performed on where deployment of anchors will have the lowest likelihood of damaging fishing gear (i.e. areas of low bottom fish productivity). If anchors must be deployed in actively fished areas please include a requirement to only use sandbag anchors.

In section 2.4.1.4 there is an analysis of electronic attack tactics, such as electronics jamming. Is there potential that bystander vessels will be impacted? If so, we fear for the safety of our fishermen and the recreational boaters that utilize the Port of Neah Bay due to the possible impacts of electronic attacks. Furthermore, the loss of electronics to large container ships or oil freighters may increase the risk of a catastrophic oil spill. There needs to be analysis that any closure areas for training exercises will be of

sufficient size to avoid impacts to bystander vessels. There should be analysis on possible impacts to bystander vessels from electronic attack tactics in the FEIS in general.

#### Impacts of Training Exercises on Living Marine Resources

We have reviewed the analysis of environmental effects with particular interest on analysis on marine fish and marine mammals. The potential for risk to marine mammals was computed with the base assumption that marine mammal distributions are uniform in space. This assumption is an important tool for analysis but does not truly represent the distribution of marine mammals, and other living marine resources, in the environment. Marine mammals, seabirds, turtles, and fishes are known to concentrate in areas of high productivity. These areas are often associated with bathymetric features that lead to upwelling or oceanic sea surface temperature or sea surface height frontal zones. We appreciate the mitigation and monitoring measures that the Navy plans to use to minimize impacts on marine mammals, however, we believe impacts would be minimized to a much greater extent if training exercises avoided oceanic areas of high productivity. Avoiding areas of high ocean productivity will also reduce the likelihood that naval exercises will be stalled due to the presence of marine mammals.

Areas of high oceanic productivity can be detected using remotely sensed oceanographic data. Chlorophyll *a* can be monitored to identify areas of high productivity. Sea surface temperature and sea surface heights can also be used to identify highly productive frontal zones. Other areas have known bathymetry, like the continental shelf break, and have consistently high levels of productivity. We would like to see the addition of avoiding high productivity areas as a means to mitigation to reduce possible impacts of training exercises on living marine resources. We understand that some training exercises are designed to take advantage of bathymetric features and require certain training locations. If however training locations are elastic, we would like to see assurances in writing that remotely sensed oceanographic data will be used to determine high productivity areas to avoid.

#### Injury due to sound

Throughout the analysis of impacts on fish, turtles, and mammals there was an overriding assumption that only sounds within the audible range of an animal could affect or injure the animal. This assumption may not be valid. Sound outside hearing range of man has been used in modern medicine to manipulate the body. Ultrasound is commonly used in physical therapy offices to encourage blood flow in injured joints. This process shows that sound outside hearing range can affect tissues of the body. Furthermore, the process causing gas bubble lesions in marine mammals is not well understood. Tissues other than tissues involved in hearing have shown gas bubble lesions in beaked whales thought to have been exposed to mid frequency sonar. For these reasons, it would be advisable to analyze the impacts of all sounds emitted at high energy levels on living marine resources and not just sounds within the audible range of the animal in question.

Thank you for your consideration. If you have any questions on the comments provided please contact Jonathan Scordino (360) 645-3176 or Chad Bowe chop (360) 645-2130 from my staff.

Sincerely,

Michael Lawrence  
Chairman  
Makah Tribal Council

**MARINE MAMMAL COMMISSION  
4340 EAST-WEST HIGHWAY, ROOM 700  
BETHESDA, MD 20814-4447**

17 February 2009

Naval Facilities Engineering Command, Northwest  
Attention: Ms. Kimberley Kler – NWTRC EIS/OEIS  
1101 Tautog Circle, Suite 203  
Silverdale WA 98315-1101

To Whom It May Concern:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the Navy's Draft Environmental Impact Statement/Overseas Environmental Impact Statement (DEIS) evaluating proposed activities in the Northwest Training Range Complex. The complex includes approximately 122,440 nmi<sup>2</sup> of surface and subsurface ocean operating areas located both inside and outside U.S. territorial waters off Washington, Oregon, and northern California, plus additional restricted land areas and air space. The analyzed activities include aircraft combat maneuvers; missile, bombing and gunnery exercises; use of explosives in ship-sinking exercises; mine warfare; special warfare; explosive ordnance disposal; and the use of ship- and helicopter-based sonars and sonabuys in anti-submarine warfare exercises.

Three alternatives are considered in the DEIS: one purportedly consistent with the levels of activity in prior years (the Navy's "No Action" alternative), another with an anticipated increase in activity (alternative 1), and the last with a further increase in activity (alternative 2). The Navy prefers alternative 2.

#### RECOMMENDATIONS

The Marine Mammal Commission recommends that the Navy—

- revise its Northwest Training Range Complex DEIS to include a description of past activity levels to verify that the activity level proposed under the no-action alternative is indeed appropriate;
- revise its DEIS by incorporating a set of explicit and clear metrics that the public and decision-makers can use to make more informed judgments about the benefits and costs of various types and levels of activity;
- revise its DEIS to include an alternative involving a reduction in activity to ensure that decision-makers are fully informed and presented with a full range of alternatives;
- revise its DEIS by limiting its scope to those proposed activities that can be described in sufficient detail to provide a reliable basis for assessing benefits and costs;
- subject its reviews of marine mammal density, distribution, behavior, and habitat use to scientific peer review; and
- develop and implement a plan to validate the effectiveness of monitoring and mitigation measures before beginning, or in conjunction with, operations under the final environmental impact statement and anticipated issuance by the National Marine Fisheries Service of an incidental harassment authorization.

Northwest Facilities Engineering Command  
17 February 2009  
Page 2

#### RATIONALE

The Commission's rationale for its recommendations is as follows.

#### Selection of Alternatives

In an environmental analysis, the no-action alternative provides an essential baseline to ensure that the full effects of a proposed action are described to the public and decision-makers. At its most basic level, "No Action" means just that—the action agency does not undertake the proposed action in any form. An action agency also can use the no-action alternative to represent its current level of activity. However, it should only do so if the effects of the current level of activity have been described in a previous analysis (the preferred approach) or are described in the current analysis. In this DEIS, the Navy is using the no-action alternative to indicate its current level of activity. The implication is that the type and level of activity and its environmental effects will not change. However, the type and level of activity in previous years have not been described, and it is therefore not possible for the public or decision-makers to verify that such is indeed the case. Although readers could simply assume that the activities described in the no-action alternative are consistent with those in past years, that assumption seems inconsistent with the generally increasing trend in naval activities in recent years. Furthermore, failure to provide supporting information for such a key element of the DEIS seems inconsistent with the intent of the National Environmental Policy Act. For that reason, the Marine Mammal Commission recommends that the Navy revise its Northwest Training Range Complex DEIS to include a description of past activity levels to verify that the activity level proposed under the no-action alternative is indeed appropriate.

The underlying premise for this analysis (and similar analyses for other Navy ranges) is that certain levels of activity are essential to maintain national security readiness. However, in this and previous DEISs, the Navy does not describe metrics that the public and decision-makers can use to evaluate the various activity levels in terms of their potential benefits to readiness and their potential costs to the environment. Rather, the Navy simply asserts that certain levels of activity are necessary to achieve readiness without substantiating that claim. The Commission believes that the public and decision-makers can make informed decisions only if they have clear measures of benefits and costs over a wide range of activity levels. To that end, the Marine Mammal Commission recommends that the Navy revise its DEIS by incorporating a set of explicit and clear metrics that the Navy, the public, and decision-makers all can use to make more informed judgments about the benefits and costs of various types and levels of activity.

Further, the Navy's DEIS for the Northwest Training Range Complex does not sharply define the issues because it excludes alternatives that involve a reduction in activity. A decision-maker informed solely by this DEIS would only be able to evaluate and choose between maintaining the current level of activity or increasing it. However, a decrease in activity may be required under certain fiscal conditions, reasonable under certain security-related conditions, or necessary under certain environmental conditions. The approach taken in this DEIS constrains the public and decision-makers rather than fully informing them because the Navy has not described the benefits and costs associated with a reduction of activity. Therefore, the Marine Mammal Commission

PHONE: (301) 504-0087  
FAX: (301) 504-0099

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recommends that the Navy revise its Northwest Training Range Complex DEIS to include an alternative involving a reduction in activity to ensure that decision-makers are fully informed and presented with a full range of alternatives.

Finally, the Navy prefers alternative 2, which involves the highest level of activity but also is dependent upon factors not yet determined or reliably predicted (e.g., congressional direction and funding, internal Department of Defense strategic decisions, future national security concerns). It therefore seems premature, and out of keeping with the intent of the National Environmental Policy Act, to request what amounts to a blank check for speculative increases in future activity. If those future activities cannot be described in detail, then their environmental costs also cannot be described and decision-makers cannot make informed decisions about them. To comply with the National Environmental Policy Act, the Navy should base its alternatives only on those types and levels of activity that can be described in sufficient detail for a meaningful risk-benefit analysis. It can then supplement its analyses and any related permits or authorizations at the point when future circumstances can be described with sufficient detail to inform decision-makers about the potential costs and benefits of alternative actions. History tells us that many of the factors that should be considered in determining the effects of future Navy actions (e.g., budget, threats to security, military technology, environmental conditions) will change over time. Therefore, the Marine Mammal Commission recommends that the Navy revise its DEIS by limiting its scope to those proposed activities that can be described in sufficient detail to provide a reliable basis for assessing benefits and costs.

#### Scientific Peer Review of Marine Mammal Density and Distribution Estimates

The Navy has done a commendable job of reviewing the existing literature on marine mammal density, distribution, behavior, and habitat use in this and similar documents. The resulting reviews are used to estimate animal density and distribution and therefore are an important element of the risk estimation procedure. However, the manner in which the literature is used to form conclusions about density, distribution, behavior, and habitat use has not been subjected to normal scientific process. In particular, the numbers used in the DEIS to estimate risks are derived mainly from two Navy-contracted reports that have not been subjected to scientific peer review; these reports are Marine Mammal and Sea Turtle Density Estimates for the Pacific Northwest Study Area and Marine Resources Assessment for the Pacific Northwest Operating Area. The Commission has previously recommended that the Navy subject its analytical procedures to scientific peer review, which constitutes one of the fundamental elements of the scientific process. Because the Navy bases its training decisions, in part, on perceived risks to marine mammals, and the Navy's use of existing data to estimate those risks has not been subjected to peer review, the reliability of the Navy's decisions is called into question. To reduce such uncertainty, the Marine Mammal Commission recommends that the Navy subject its reviews of marine mammal density, distribution, behavior, and habitat use to scientific peer review.

#### Monitoring and Mitigation

Monitoring and mitigation measures determine, at least in part, the extent to which anticipated risks are detected and managed effectively. The Navy has established an Integrated Comprehensive Monitoring Plan to monitor, mitigate, and assess the effects of its activities over time. If properly implemented, the plan will improve both our understanding of the effects of sound from military activities and our ability to monitor and mitigate such effects. The Marine Mammal Commission strongly supports the development and implementation of this plan.

At present, however, the DEIS for the Northwest Training Range Complex seems inconsistent with that long-term assessment plan because it does not convey realistic estimates of performance for proposed mitigation measures and does not contain a concrete plan to verify and validate the levels of performance of watchstanders or other mitigation measures. The Commission continues to believe that the probability of detecting marine mammals using existing monitoring measures, and the subsequent likelihood of implementing necessary source-level reductions and other mitigation measures, are far lower than implied in the Navy's DEIS. The Commission also believes that the Navy is capable of conducting the tests needed to characterize the effectiveness of monitoring and mitigation measures. The knowledge gained from such tests would justify the relatively small effort and time required. Such assessments of system performance are standard Navy procedure, and the Navy has conducted such tests to evaluate the effectiveness of monitoring and mitigation measures for similar operations (e.g., SURTASS LFA). For these reasons, the Marine Mammal Commission recommends that the Navy develop and implement a plan to evaluate the effectiveness of monitoring and mitigation measures before beginning, or in conjunction with, operations under the final environmental impact statement and anticipated issuance by the National Marine Fisheries Service of an incidental harassment authorization.

Please contact me if you have questions about any of our recommendations or comments.

Sincerely,



Timothy J. Ragen, Ph.D.  
Executive Director

Cc: Craig Johnson, NOAA/NMFS OPR  
RADM Larry Rice, CNO N45  
Hon. Donald Schregardus, DASN E

United States Navy  
**Public Hearing Comment Form**  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than March 11, 2009, to be considered in the Final EIS/OEIS.

Name: Nicole Paisley Martensen

Organization/Affiliation: \_\_\_\_\_

Address:\* 310 N. School St.

City, State, Zip Code: Ukiah, CA 95402

Comments: I have read the EIS report, but I have

also read conflicting information from  
marine biologists and scientists confirming that  
underwater sonar testing is damaging to marine  
animals who rely on their own sounds  
for navigation. The proposed plan seems to be  
at odds with the current administration's  
moves to downsize military spending. Both  
the environmental risks and the expansion  
costs are concern enough to be opposed to  
this plan.

Nicole Martensen

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

Wendy Martin

From: "Wendy Martin" <[wendmartin@cablerocket.com](mailto:wendmartin@cablerocket.com)>  
Sent: Tuesday, January 27, 2009 2:28 PM  
Subject: United States Navy Public Hearing Comment Form

United States Navy  
**Public Hearing Comment Form**  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement

All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: Wendy Martin \_\_\_\_\_

Organization/Affiliation: Private Citizen \_\_\_\_\_

Address:\* 7844 West Shore Drive

City, State, Zip Code: Anacortes 98221 \_\_\_\_\_

Comments:

I'm writing in regards to the proposal of having increased flyover Operations from NAS Whidbey. I have lived on Guemes Island for over 25 years and have patiently had to put up with Naval jets flying low and dirty over my house disturbing my peaceful way of life here (we contested this years ago, but to no avail). When your jets fly over, everything has to pause (telephone conversations etc.) while we wait for the deafening sound to pass until all of nature can once again try to resume its peaceful way of life. If the Naval Base is truly considering doubling these flyovers, then I'll most likely be forced to move somewhere else for my own sanctity and quiet. I don't think NAS Whidbey should be allowed to inflict this kind of noise invasion *at any time* (day or night) on innocent citizens and nature - it just isn't right.

Feb 17, 2009

Re: North West to NW Impact

~~DO NOT~~ EXPAND ESTUARY

Along the

Coast.

Sincerely,

Heather McKee

**United States Navy**  
**Public Hearing Comment Form**  
 Northwest Training Range Complex  
 Environmental Impact Statement /  
 Overseas Environmental Impact Statement



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Naval Facilities Engineering Command Northwest  
 1101 Tautog Circle, Suite 203  
 Silverdale, WA 98315-1101  
 ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address *halmw*

All comments must be received no later than March 11, 2009, to be considered in the Final EIS/OEIS.

Name: Heather McKee  
 Organization/Affiliation: Project Sanctuary resident  
 Address: P.O. Box 450  
 City, State, Zip Code:  Ukiah, CA 95482  
 Comments:

The Mendocino Coast is one of the few pristine, untouched habitats the whales and other oceanic species have left on the Pacific Northwest. The sonar based testing is most disturbing to me because of the undoubtable damage it will cause whales and dolphins. There are many existing military bases such as San Diego where the sea life has already been damaged; the oceanic ecosystem already disturbed. Why not conduct testing there?

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

Please don't desecrate our sacred Mendocino coast. Sincerely, Heather McKee

KRISTI FURMAN  
Clerk of the Board



**COUNTY OF MENDOCINO**  
BOARD OF SUPERVISORS  
501 Low Gap Road • Room 1090  
Ukiah, California 95482

TELEPHONE: (707) 463-4221  
FAX: (707) 463-4245  
EMAIL: bos@co.mendocino.ca.us  
www.co.mendocino.ca.us/bos

Ms. Kimberly Kler - NWTRC EIS  
Naval Facilities Engineering Command Northwest  
Page 2 of 2

March 3, 2009

March 3, 2009

Ms. Kimberly Kler - NWTRC EIS  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101

RE: Serious Concern regarding the Northwest Training Range Complex

Dear Ms. Kler:

On behalf of the Mendocino County Board of Supervisors, I am writing to express our serious concern regarding the United States Navy's Weapons Testing Program Draft Environmental Impact Statement (EIS/OEIS).

Unfortunately, the US Commander of the Pacific Fleet has given the citizens in the service area a very short time period in which to comment on the draft EIS/OEIS, published on December 30, 2008. The public comment period for the United States Navy's Weapons Testing Program Environmental Impact Statement (EIS) concludes on March 11, 2009. This document consists of approximately 1,000 pages of highly technical, complex materials for which the public should be afforded the opportunity to adequately assess and respond to the proposed environmental document.

The County of Mendocino strongly urges the US Navy and US Department of Defense to extend the public comment period by 30 days, to end on April 11th, 2009 to allow time for the County to fully review the Draft EIS/OEIS.

The proposed expansion of the service area of operation will include areas of northern, coastal Mendocino County, yet no public hearings were held anywhere throughout the county during the comment period and no notification was publicly distributed in our area prior to the February 2, 2009, hearing in Humboldt County.

The current proposal to expand ocean and land-based operations, conduct underwater demolitions, and test electronic communications, explosives and surveillance systems so as to increase baseline levels of training activities, may have considerable negative impacts to human and marine life in Mendocino County. We are seriously concerned about potentially harmful impacts to water quality,

**THE BOARD OF SUPERVISORS**

CARRE BROWN First District	JOHN MCCOWEN Second District	JOHN PINCHES Third District	KENDALL SMITH Fourth District	J. DAVID COLFAX Fifth District
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marine habitat, fisheries, the local commercial and recreational fishing industry, and the nesting and migration of numerous avian species. More specifically, we are highly concerned about the project's potential to cause psychological, physiological and behavioral harm to marine life from the introduction of new, non-native, mid and high-frequency active sonar. This is of great concern to the County, as it would be a first-time introduction of this technology to Mendocino County's delicate marine environment.

Should you have any questions or comments, please do not hesitate to contact me.

Sincerely,

John Pinches, Chair  
Mendocino County Board of Supervisors

cc: **California Delegation**  
US Senator Barbara Boxer  
US Senator Dianne Feinstein  
Congressman Mike Thompson, 1<sup>st</sup> District  
Congressman Wally Herger, 2<sup>nd</sup> District  
Congressman Tom McClintock, 4<sup>th</sup> District  
State Senator Patricia Wiggins, 2<sup>nd</sup> District  
State Senator Sam Aanestad, 4<sup>th</sup> District  
State Senator Dave Cox, 1<sup>st</sup> District  
Assemblymember Wesley Chesbro, 1<sup>st</sup> District  
Assemblymember Jim Nielsen, 2<sup>nd</sup> District  
Assemblymember Dan Logue, 3<sup>rd</sup> District

**Oregon and Washington Delegation**  
US Senator Jeff Merkley  
US Senator Ron Wyden  
US Senator Maria Cantwell  
US Senator Patty Murray

KRISTI FURMAN  
Clerk of the Board



COUNTY OF MENDOCINO  
BOARD OF SUPERVISORS  
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EMAIL: bos@co.mendocino.ca.us  
www.co.mendocino.ca.us/bos

Naval Facilities Engineering Command Northwest  
Page 2 of 3

April 7, 2009

April 7, 2009

Naval Facilities Engineering Command Northwest  
ATTN: Mrs. Kimberly Kler - NWTRC EIS  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101

RE: Letter of Opposition to Preferred Alternative No. 2 for the Navy's Northwest Training Range Complex

Dear Mrs. Kler:

We would like to express our gratitude to Commander John Mosher, Project Manager; Kimberly Kler, Environmental Planner and Project Technical Representative; and Brian Wauer, Project Operations Specialist, who appeared before the Mendocino County Board of Supervisors on March 31, 2009, pursuant to our request, and at the urging of Congressman Mike Thompson, where they made an informational presentation and responded to the concerns, questions, opposition, and in one case, support, for the project, expressed by over thirty speakers at a public meeting attended by more than 100 citizens. They also responded to questions and concerns by individual Board members. We appreciate their professional and informational presentation, and especially their stamina in presenting and fielding responses for the nearly five hour meeting.

We are writing to express our opposition to Preferred Alternative No. 2 for the Navy's Northwest Training Range Complex as described in the Environmental Impact Statement (EIS) and Overseas Environmental Impact Statement (OEIS) for the U.S. Navy Weapons Testing Program. We are concerned that the relevant documents do not adequately describe existing environmental conditions, baseline training operations or future training operations. Further, we do not believe that the environmental and cumulative impacts are properly analyzed and therefore it is not surprising that the proposed mitigation measures are inadequate to protect marine mammals and other marine species. We are particularly concerned about the unnecessary and preventable impacts to fisheries and marine mammals attributable to sonar that will be the likely result of implementation of Preferred Alternative No. 2.

THE BOARD OF SUPERVISORS

CARRE BROWN  
First District

JOHN MCCOWEN  
Second District

JOHN PINCHES  
Third District

KENDALL SMITH  
Fourth District

J. DAVID COLFAX  
Fifth District

We believe the EIS and/or Alternative No. 2 are environmentally deficient for the following reasons:

- Incomplete data. The EIS contains a paucity of data regarding existing environmental conditions, baseline data for populations of marine mammals and fish species, baseline data for existing training activities and impacts to marine species, as well as projected impacts of future training activities.
- Environmental impacts. The Navy does not properly analyze environmental impacts that its sonar training will likely have on the endangered Southern Resident killer whale, migrating gray whales and marine mammals and species in general. We are concerned that the Navy has adopted methodologies that are not accepted in the scientific community while at the same time ignoring relevant information that favors a more protective approach. Therefore, the thresholds established by the Navy for assessing impacts to marine mammals are likely set too high and as a consequence, the 129,112 annual estimated "takes" of marine mammals is likely to be significantly understated. We also question whether all mammals that are exposed to sonar above ambient noise levels are included in those counted as "takes," as the Navy stated at the meeting. It is our understanding that the threshold level for temporary and permanent injury, as well as behavioral effects, are set significantly higher than ambient levels.
- Fisheries impacts. Fisheries resources in California have declined precipitously in recent years due to a variety of causes. The presence of a viable fishing industry helps define the rural character of Mendocino County and contributes directly and indirectly to our local economy, including providing a significant cultural and epicurean backdrop for the local tourist industry. Anything that negatively impacts the fishing industry also negatively impacts our local tourist industry, economy and character. We are concerned that there seems to have been no meaningful effort to identify essential fisheries habitat for commercial fish species or to quantify in any meaningful way the potential impacts. The EIS acknowledges that there will be mortality and injury associated with training activities but without providing any meaningful analysis peremptorily concludes that there will be no significant impacts.
- Cumulative Impacts. The EIS lists projects that could have a potential cumulative impact, but does not provide the appropriate analysis. We are also concerned that statements were made at the meeting that indicated a lack of knowledge of or effort to discover, quantify or assess the degree to which other branches of the armed forces might be operating in the same areas and therefore creating further need for cumulative impacts analysis.
- Alternative analysis. The alternative analysis only considers three options: maintain the status quo, conduct training, or conduct more training. A meaningful alternatives analysis would have included a broader range of options.
- Mitigation Measures. The Navy fails to propose measures that would effectively limit the harmful impacts of sonar and other training activities on marine wildlife. The Navy has adopted more practical safeguards to limit the impacts of sonar for other training exercises and should do so here. Training exercises should be excluded from all coastal waters between the shoreline and the 100 meter depth contour. Consideration should also be given to avoiding lower continental shelf waters behind the 500 and 2,000 meter depth contours. Further, the Navy should rely on the technique called 'simulated geography' in order to avoid undersea canyons; should identify and avoid essential fisheries habitat; should restrict sonar use at night when marine mammals are harder to detect; and should minimize the use of sonar from multiple sources at the same time. In addition to avoiding areas of high marine mammal populations, the Navy should also schedule training exercises to avoid conflicts with the gray whale migration season and routes.

April 7, 2009

- Target vessels. Concern has been expressed that the target vessels proposed to be sunk at sea may contain unacceptable levels of toxic contamination. The EIS should discuss the steps that will be taken to alleviate this concern.
- California Coastal Commission (CCC) Consistency Determination. We urge the Navy to seek a consistency determination from the CCC without further delay, and urge the Navy to voluntarily adopt comparable mitigations to those required by the CCC for the Southern California Training Range.

We wish to reiterate our concern regarding potential significant impacts to our already dwindling fisheries resources. Our fisheries are already subject to species specific harvest reductions and prohibitions as well as reduced or closed seasons. We can ill afford any further impacts to this irreplaceable resource. We note with some frustration that it is difficult to get a definitive answer regarding the level of training that may take place off the Northern California Coast, but we are assured that the level of activity is likely to be modest. However, there appears to be nothing to guarantee that should the training range be approved. Accordingly, we urge you to avoid any training activities in our waters that are likely to have a negative impact on fish or fisheries habitat.

We are fully supportive of the need for the Navy to properly train to maintain a high state of proficiency and readiness to safeguard our nation and our naval personnel. However, we are confident that the training mission of the Navy can be accomplished in a way that is compliant with environmental principles and relevant environmental laws. We urge the Navy to adopt mitigations that will be protective of the marine environment and that will limit the potential adverse environmental impacts to marine mammals and fish species from the Navy's proposed alternative No. 2 for the NWTRC.

If it is true that the Navy does "everything we can" to mitigate potentially significant impacts of the training exercises, as was stated at the meeting, then it should not be difficult to adopt the mitigations requested here, many of which have been adopted in other areas. This would be consistent with the statement made at the meeting that the Navy takes a proactive approach with regard to environmental compliance.

Further, we request Congressional hearings be held to review the issues we have raised and to assure that optimum training levels are maintained while environmental values are protected.

Thank you for your consideration of these comments.

Sincerely,



Carre Brown, Vice-Chair  
Mendocino County Board of Supervisors

cc: Congressional Delegations of Coastal California, Oregon and Washington  
Coastal Counties of Northern California, Oregon and Washington  
National Marine Fisheries Service

Joseph Miller

February 3, 2009

Captain Gerral David  
Commanding Officer

Naval Air Station Whidbey Island  
3730 North Charles Porter Avenue  
Oak Harbor WA 98278-5000

RE: Noise Reduction Study for NAS Whidbey

Back in the late 1980s, a sharp rise in operations at NAS Whidbey and the resulting spike in noise complaints led the Navy to concentrate A-6 and EA-6 traffic over Guemes Island. The community organized and very effectively expressed their outrage for more than two years until the Navy rescinded their decision and resumed a more random distribution of flights over the region.

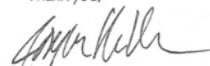
Now, the Navy considers nearly doubling operations for the Northwest Training Range Complex of what may be noisier aircraft and we are alert and wary.

We came across a recent RFP entitled "Noise Reduction for Military Airfields and Surrounding Areas" [Navy SBIR 2009.1 -Topic N091-016] which proposes to study and apply noise mitigation procedures employed by civilian air traffic to military overflights of civilian populations, specifically listing the F/A-18 and EA-18 aircraft.

We thought NAS Whidbey might be an ideal candidate and participant, given its plans and nascent procedures in converting to EA-18 aircraft. Optimizing flight parameters here could really make a difference in the local noise politics and potentially temper civilian reaction to expanded operations.

My question for you, then, Captain David, is this: Will the communities surrounding NAS Whidbey suffer a sharp increase in noise levels and the same indifference to our experience we did almost twenty years ago or will the Navy choose another way?

Thank you,



Joseph Miller

Noise Reduction for Military Airfields and Surrounding Areas:  
[http://www.navysbir.com/n09\\_1/N091-016.htm](http://www.navysbir.com/n09_1/N091-016.htm)

An article originally published in Guemes Island newsletter late 1990:  
<http://giet.octopia.com/pages/2851/Intruder-Roulette/>

7914 TIDEWATER ROAD, ANACORTES WA 98221  
160.293.8878 : FAX 360.293.9697  
MAIL@JOSEPHMILLER.NAME

32831 Park View Drive  
Fort Bragg, CA 95437  
April 10, 2009

Mrs. Kimberly Kier  
Permits Conservation and Education Division  
1101 Tautog Circle, Suite 203  
Silverdale, Washington 98315

Dear Mrs. Kier:

I am writing this letter to register my opposition to the Navy Warfare Testing program Expansion on the coast of northern California.

Historically our costal waters have been home to some of the richest and most diverse plant and animal life in the oceans of the world. In this era of declining resources and increasing risk to our planet we can not afford to put our costal ecosystem at further risk. It is short sighted and irresponsible.

As a U.S. citizen and voter I vote NO to the Navy Warfare Testing Program Expansion.

Respectfully,

*Martin Miller*

Martin Miller

FAX - (360) 396-7127 - ATTN: Shelia Murray - NWTRC - Silverdale WA.

**United States Navy**  
**Public Hearing Comment Form**  
**Northwest Training Range Complex**  
**Environmental Impact Statement /**  
**Overseas Environmental Impact Statement**



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Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kier - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: Charlotte Mills

Organization/Affiliation: Oregon Shores Conservation Coalition/ Our Ocean/ Marine Reserves Action Team.

Address: 480 Buck Creek Road

City, State, Zip Code: Tadewater OR 97390

Comments: Comments included here should be attached to the documents FED-Exed to Kimberly Kier at your facilities 2/16/2009 to arrive by noon on 2/17/2009.

Tracking # 9263 6361 4423.

These are preliminary comments on NWTRC EIS/OEIS. Because more information and documents are being researched, further comments and attachments are planned when the Sec. of the Navy extends the Public Comment period and more Public Hearings are scheduled with adequate notification required by the National Environmental Policy Act (NEPA).

A copy of NEPA policies and requirements referenced and included here. provided our group with the necessary guidelines in determining that the materials provided by the Navy on NWTRC EIS/OEIS failed to meet NEPA requirements.

(Continued)

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

**Opposed to Weaponizing Oregon**  
480 E. Buck Creek Rd.  
Tidewater, Oregon 97390

\*Regarding U.S. Navy's Plan to Deploy  
Mines, Explosives, and Target Devices  
Along Oregon Coastline

ATTN: Kimberly Kler  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale WA 98315-1101

February 16, 2009

As one who attended and spoke at the Jan. 30 public hearing in Newport after learning of it at 4 p.m. the day before (Jan. 29) from a Portland contact who read of the meeting in the Seattle Post-Intelligencer, I make the following comments with no reservations that the public comment period be extended and at least three more public hearings be scheduled at three locations along the 362-mile Oregon coastline. Why? Because three hearings were held in three Washington communities along a Pacific coastline half the size of Oregon's and with smaller populations than a number of Oregon's larger commercial and recreational fishing and seafood communities.

As a journalist and long-time board member of the unnotified Oregon Shores Conservation Coalition, my major objection about the Jan. 30 hearing is with the abjectly inadequate efforts made by the Navy to inform the Oregon public about the public hearing held at the Hatfield Marine Science Center in Newport.

In fact, in calls made by our group to the one Oregon newspaper listed in the EIS Executive Summary to be notified and the one Oregon library where the EIS two-volume document was to be available for public review, we learned that the Lincoln City News-Guard learned of the Jan. 30 hearing on Feb. 3 after citizen questions and going online to find out on its own.

Our group then contacted a Lincoln City Driftwood Library staff person who found the 1000-page EIS still in a shipping box with no cover-letter explaining its time-related purpose. So on Feb. 9, 10 days after the Jan. 30 hearing, the two-volume document was finally cataloged and shelved.

In point of fact, no print media, no public library and no Oregon citizen was properly notified of the Jan. 30 public hearing.

The few citizens who did attend on the 30th learned overnight or only a few hours before the hearing mostly by word-of-mouth. By failing to comply with NEPA public hearing requirements, the Jan. 30 hearing is invalid and the Feb. 18 public comment period is invalid. Consequently, the Oregon Congressional Delegation's request to the Sec. of the Navy, William Winter, to extend the public comment period to April 11 and to provide more public hearings should happen immediately and Oregon citizens should be informed immediately.

Then the Navy's Public Affairs staff should send notices of the hearings to all 15 Oregon coastal newspapers in the seven coastal counties. See attachments FED-Exed on 2/16/2009 for their listings.

Copies of the two-volume EIS should also be placed in at least three coastal community libraries with notices of their locations included in the 15 coastal newspapers.

One minor exception to the Navy's inadequate efforts to inform the Oregon public of the Jan. 30 hearing was a poorly designed 3 1/2" X 6" ad which appeared in several back-page issues of the Newport News-Times. The five hearing locations in Washington, Oregon and California were stacked in black ink and set in 6 and 8 point type with the Newport event near the bottom of the page.

Evaluation Alternatives -

Based largely on Jan. 30 testimonies by Terry Obteshka of the Newport City Council, David Jinks with Midwater Trawlers and Pacific Whiting coop, Terry Thompson as fisherman and Lincoln County Commission, Bruce Matas an international marine mammal authority and others, none of the alternatives provided in the wire-bound public hearing materials are acceptable.

Significantly, when the four Navy panelists were asked what activities are currently underway in Oregon waters as mentioned in the No Action Alternative, no panelist chose to provide an answer. Asked a second time, it appeared either no panelist knew about any ongoing activities or was willing to disclose what they are.

In discussions with several presenters during the Jan. 30 Open House period when questions were asked about the Navy's tax-paid budget for: 1) Giant full-color posters; 2) All-color wire-bound booklets; and 3) Travel, menu and lodging expenses in Washington, Oregon and California for their eight-day excursion with 19 presenters and panelists.

The budget is a legitimate question which should have been raised during the hearing but wasn't. It will be raised at any upcoming hearing. If available, could our group be sent these budget figures as soon as possible?

Because others plan to critique the brochure topics of sonar, explosives at sea, drone overflights, anti-submarine devices, land demolitions and project consequences for plant and animal life, I defer to their expert information. However, upon reading at some length in the EIS Executive Summary and finding that some ammunition planned might contain depleted uranium, this was seriously alarming. The possibility that this toxic element could enter the food chain and contaminate the ocean floor ranks high in my overall concerns about the Navy's current NWTRC EIS/OEIS plans.

Information about depleted uranium appearing in both scientific and mainstream media going back to the Vietnam War and forward to both Iraqi Wars have provided devastating evidence of damage and death to civilians, to our military and to the lands involved.

Because depleted uranium has an indefinite "shelf life", some say 10,000 years, this issue along with many others included in the EIS makes it imperative for the Navy to do further research and make comprehensive revisions in its EIS before further hearings are scheduled.

Harking back to the Jan. 30 hearing attendance, Navy public affairs agents say 40 signed in during the two-hour Open House. Evidently, for some reasons, many left before the hearing because a head count showed that the 19 Navy presenters probably outnumbered the 15 or 16 citizens who'd belatedly learned of the hearing and stayed for the slide presentation and for several totestify.

#### In Review -

1. The Navy failed in its NEPA requirements to notify Oregon citizens of the Jan. 30 public hearing.
2. Consequently, the Jan. 30 hearing is invalid and the Feb. 18 public comment period is invalid.
3. The Navy must do further research and make revisions in the EIS and at least three new public hearings should be scheduled with NEPA required notification compliance. And the public comment period should be extended to April 11.

#### Things To Do -

1. Please examine the attachments FED-Exed to you 2/16/2009. They include articles and other materials blogged from Hawaii to Virginia which we understand resulted in comments sent from all over the country.

(Continued)

2. Please go online and access newspaper coverage of the NWTRC EIS/OEIS proposals. In an effort to help inform Oregon citizens of the Navy proposals, our group contacted most of the newspapers listed below along with Associated Press.

The Portland Oregonian - Beginning with Feb. 5 edition.

The Newport News-Times - 2/4 - 2/11 - 2/13.

The Lincoln City News-Guard - 2/11.

South Lincoln County News - 2/11.

Other widely-read papers including:

Salem Statesman Journal

Eugene Register Guard

Corvallis Gazette-Times

Cook Bay World

#### Conclusion -

To Kimberly Kler, please understand that the criticisms presented here are not aimed at you or the facilities staff. Rather, these comments are addressed to our military policy makers.

What the Navy designers of the NWTRC plan did not realize in presenting this project is that it would fly in the face and consciousness of most Oregonians, especially coastal Oregonians.

Since 1859, our state has drawn free-spirits who love and respect the environment. People like William U'Ren who established the initiative and referendum ballot measure (1902); Gov. Oswald West who, by edict, made Oregon beaches public (1913); Bob Straub, Dr. Bob Bacon and Gov. Tom McCall who engineered Oregon's famous Beach Bill (1962); and two women who successfully protected much of the central Oregon coast area - Penelope Hull and Addaline Huff (1980s).

This proposal indicates to some that many in the Military establishment are living in a bubble, disassociated from the rest of Americans desparately concerned about the economy and ecology. Disassociated by hiring contractors - not scientists - to author the EIS and relying on well-meaning but untrained communication workers to promote critical programs.

The founders understood this potential problem when they wrote:

"He (the King) has affected to render the Military independent of and superior to the Civil Power."

Declaration of Independence - July 4, 1776

This public comment is respectfully submitted by Charlotte Mills - A member of Citizens Opposed to Weaponizing the Oregon Coast.

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Name: Charlotte Mills  
 Organization/Affiliation: Citizens Opposed to Weaponizing the Oregon Coast / Oregon Shores Conservation Coalition / 1000 Friends of Oregon /  
 Address: Marine Reserves Action Team - Heceta Head to Cape Perpetua  
 City, State, Zip Code: 480 Buck Creek Road  
Tidewater OR 97390  
 Comments: \_\_\_\_\_

Materials being submitted here are being Fed - Exed on March 10.

A second public comment statement will be faxed to your office this evening of March 10.

Please attached the coming comment statement to the materials you will received on March 11 via Fed -X.

Thanks - Charlotte Mills

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

2/10/2009

Hi Carol,

We didn't find out about the meeting until it had already been held. One of my colleagues at our sister paper in Tillamook heard about it after finding the article "Navy Proposes Increased Activity Off Oregon" online on Feb. 2. I'm not sure if she was tipped off to the article by a reader or discovered it on her own. After that, my reporter, Patrick Alexander, started doing some digging and was able to get the attached press release, again on Feb. 2, so at least we could let folks know a little about what was going on before the deadline passed (we're weekly published on Wednesdays). We will have a follow-up in the Feb. 11 paper. As for public notice, the only newspaper in Lincoln County that the Navy ran legals in was the Newport News-Times. They technically serve the whole county, but a lot of North County readers subscribe only to our newspaper. The Navy, however, would not have known this and could have thought they were reaching out to the whole county. I'm not sure why the News-Times didn't do something in advance, although the editorial department doesn't take care of the legals and might not have seen them, but they were at the meeting at least.

Hope that helps.

Allyson Longueira  
Managing Editor  
The News Guard  
930 S.E. Highway 101  
Lincoln City, OR 97367  
(541) 984-2178  
[info@thenewsguard.com](mailto:info@thenewsguard.com)



**Opposed to Weaponizing Oreg**  
 480 E. Buck Creek Rd.  
 Tidewater, Oregon 97390

\*Regarding U.S. Navy's Plan to Deploy  
 Mines, Explosives, and Target Devices  
 Along Oregon Coastline



March 5, 2009

RE: Navy's NEPA violations  
 making Newport & Tillamook  
 public hearings illegal  
 and invalid.

Oregon Congressional Delegation  
 Senators Wyden and Merkley and  
 Congressmen Schrader, Blumenauer, DeFazio and Wu  
 Congress of the United States  
 Washington D. C. 20515

Dear Sirs:

Our citizen's group contacts you again on another urgent matter concerning the U.S. Navy's proposals to extend their Northwest Training Range Complex plans. Our February 22 correspondence with you reported the Navy's failure to comply with the National Environmental Policy Act (NEPA) requirements regarding the January 30 hearing in Newport. And you folks contacted the Secretary of Navy resulting in a second public hearing scheduled for Tillamook on February 26.

Members of our group called ahead to the Tillamook Headlight-Herald and to the Tillamook County Library. And much like what happened for the Newport hearing, the Navy has failed again to provide "early notification" to Tillamook County citizens and failed again in providing a copy of the Environmental Impact Statement (EIS) for the Tillamook County Library where citizens could examine and review the two volumes in order to be informed and able to ask relevant questions at the hearing.

Because the Navy has failed to comply in both the January 30 event in Newport and the February 26 event in Tillamook, our group requests for you to notify the Sec. of Navy once more that both hearings are illegal and invalid.

Briefly, the Tillamook Headlight-Herald received notification for the Feb. 26 hearing too later for their Feb. 18 weekly edition. The Herald then dutifully published the notice in their Feb. 25 Wednesday edition, one day before the Feb. 26 hearing. A small but concerned number of citizens did attend.

Our call to the Tillamook County Library revealed that librarian Sarah Beeler reported that a two-volume copy of the EIS did arrive addressed to their library but it was directed to the Newport Public Library. So Librarian Beeler packed and sent the EIS to the Newport Public Library which now has two copies and Tillamook no copy.

The failures to notify local media and provide the EIS to local libraries can probably be traced to the Navy's Silverdale WA public affairs headquarters. The Navy needs to address this issue right away. However, because of the upcoming March 11 public comment deadline, our group respectfully requests you to consider the following recommendations:

1. Notify the Sec. of Navy that the Navy's Northwest Range Complex has failed to comply with NEPA requirements to give "early notification" to the public and to provide EIS copies at libraries in Newport or Tillamook. Consequently, both hearings should be considered illegal and invalid.
  2. Cancel the March 11 public comment extension.
  3. Require the Navy to reschedule three Oregon public hearings - as three were held in Washington - and require the Navy to send early notices to all 16 coastal newspapers as well as provide copies of the EIS early to the communities where hearings are scheduled.
  4. Require the Navy to comply with the provisions found in their 15-page Public Hearing Information Materials and the NEPA publication Sec. 102 (42 USC & 4332) on providing "early notification" on projects that have "potential environmental effects."
  5. Urge the Sec. of Navy to hire independent marine scientists to replace the contracted authors of the EIS to correct and revise it by updating scientific references. Our more knowledgeable readers find many citations are 20 to 30 years old and many are not traceable. Example: Citations on the use and consequences of deploying depleted uranium are dated 1972 and 2006. The first cites samples taken at Los Alamos from fresh water creeks almost 40 years ago and the latter citation can't be found on internet or elsewhere.
  6. Require the Navy to provide the budget information our group has already requested sometime ago. 1) Budget for the 19 presenters and panelists travel expenses on their eight-day excursion through WA, OR and CA where they presented to only an estimated 100 to 125 citizens in efforts that were invalid; 2) Budget for the rather extravagant giant posters, graphics and brochures used at the hearings compared to the small, poorly designed ads that the hired P.R. firm KATZ evidently placed in some locations but not all; 3) Travel budget for presenters who were flown from Denver and elsewhere for their one-night, hastily-scheduled Tillamook meeting which included airfare, autos, meals and overnight facilities; and 4) Estimated budget for the Northwest Range Complex proposed installations and activities off the WA, OR and CA coasts.
- What happened in California - On a call to the Eureka Public Library, we learned it did receive an EIS last December 31. But on a call to the Eureka Times Standard, city editor James Faulk reports they received no notice of the scheduled Feb. 2 hearing. The Ukiah Daily Journal did a story on Feb. 20, 18 days after the Feb. 2 hearing. And we got word that the Fort Bragg Advocate News covered the Feb. 2 hearing sometime this week.
- What happened with the three Washington hearings - Only after determining how poorly media notices and library EIS arrivals took place here in Oregon did we think to check with California and Washington hearing sites. Calls are being made to Oak Harbor, Pacific Beach and Grays Harbor College in Aberdeen to find out about notification and attendance. A public affairs officer told us they were happy with the Newport turnout because "only five or six" showed up at the Washington hearings. This hasn't been confirmed yet.

Our group and all those who have attended the hearings have expressed their sincere honor and respect for all the men and women in the U.S. Navy. And all spoke of recognizing the Navy's important need to provide training. Taking this into consideration, this contact with you focuses solely on the NEPA noncompliance issues.

Rather than crowd the upcoming March 11 comment period, we hope you can intercede as soon as possible with the Sec. of Navy. Surely the Navy will not want to provoke another compliance lawsuit like the \$5 million settlement they made with Natural Resource Defense Council (NRDC) in December 2008 in California. We understand the issues were not exactly the same but similar.

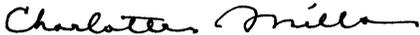
Our group and others have other materials that can be provided and research will be continued. Please do not hesitate to contact by calling or by FAX at a number provided below.

As you very well know - Oregonians believe in public participation and in being good stewards of our coastal lands and waters.

Oregonians deserve a chance to examine and review contents in the EIS in order to ask informed questions. Oregonians need to have "early notification" in local media in order to plan and attend scheduled hearings.

Oregonians have a right to know. The Navy has a federal mandate to inform.

Respectfully submitted,

  
Charlotte Mills  
Member of Citizens Opposed to Weaponizing the Oregon Coast  
Tidewater OR 97390  
(541) 528-7309 / FAX - Same

Feb. 22, 2009

**Opposed to Weaponizing Oregon**  
480 E. Buck Creek Rd.  
Tidewater, Oregon 97390

\*Regarding U.S. Navy's Plan to Deploy  
Mines, Explosives, and Target Devices  
Along Oregon Coastline

For - Senators Wyden and Merkley  
Congressmen Schrader, Blumenauf  
DeFazio and Wu

Oregon Headquarters for our Congressional Delegation

Please do your best to get the comments sent here to your Washington offices. We regret this material was not sent earlier. The issues regarding the Navy's proposal for the Oregon coast have resulted in a great deal of citizen activity. And our group is trying to stay current. The 4-page comment being sent has had several versions. We're doing our best to be accurate and current.

At issue: Our group contends that the Jan. 30 Public Hearing is invalid because the lack of proper notification fails the NEPA requirements.

Our group also contends that the Feb. 26 hearing in Tillamook will also be invalid because the Navy failed to notify the Tillamook Headlight-Herald or the Lincoln City News-Guard in a timely way of the 26th meeting. They are both weekly papers published on Wednesdays. They were not notified until Thursday last week - after the Wed. edition. So, citizens in those two locations as well as other communities served by those papers will not get notified of the 26th hearing until in the papers appearing on the 25th. Not timely notification required by NEPA.

On the 26th in Tillamook -

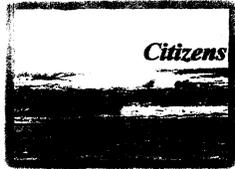
Our group is sending as many people as possible who can afford to go and have the time to go - to the Tillamook meeting.

We will speak in protest that the meeting is legal.

Needed Action -

1. That congress people can cancel the 26th meeting in Tillamook.
2. If not enough time, congresspeople will contact the Navy and anyone relevant in Tillamook with strong opinions about the Navy's continued inability to comply with their NEPA mandate.
3. Maybe, someone here in one of the Oregon offices, will give Mills a call before Thursday. It would be helpful to know if and what the congressional delegate will decide to do. We need your help. Up to how, the only meaningful help has come from your Washington offices.

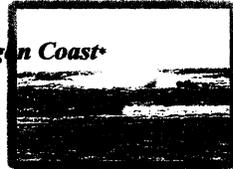
Charlotte Mills  
(541) 528-7309 / Fax - Same



**Citizens Opposed to Weaponizing Oregon Coast\***

480 E. Buck Creek Rd.  
Tidewater, Oregon 97390

\*Regarding U.S. Navy's Plan to Deploy  
Mines, Explosives, and Target Devices  
Along Oregon Coastline



February 22, 2009

RE: Noncompliance issues  
Feb. 26 cancellation

Oregon Congressional Delegation  
Senators Wyden and Merkley and  
Congressmen Schrader, Blumenauer, DeFazio and Wu  
Congress of the United States  
Washington D.C. 20515

Dear Sirs:

Our ad hoc group which includes several members who attended and spoke at the only Oregon Public Hearing scheduled by the U.S. Navy on January 30 in Newport at the Hatfield Marine Science Center to consider their Proposed Action and Alternatives plan, respectfully requests for you to review and act upon issues presented here.

At the January 30 hearing, the Navy presented their Northwest Training Range Complex Environmental Impact Statement/ Overseas Environmental Impact Statement (EIS/OEIS) which specified plans to place installments and conduct activities from the Oregon coastline out to the 250 nautical-mile territorial sea boundary.

Our group has focused on determining if the Navy complied with the National Environmental Policy Act (NEPA) requirements to actually inform the Oregon public of the January 30 hearing in a timely way. The Navy has categorically failed to comply.

No Oregon newspaper or print media was informed. No two-volume copy of the EIS was available in any Oregon library for public review. No Oregon citizen was appropriately informed of the 30th hearing. While the Executive Summary of the EIS indicated that these measures were made, none actually happened.

Our group believes that the alleged 30th public hearing is invalid. And, unfortunately, all the public comment submitted up to now may also be invalid because it is based on a meeting conducted by the Navy which failed to comply with the NEPA requirements.

While you will be hearing from other individuals and groups about installations and actions planned by the Navy, our group specifically reports to you on the claims made in the EIS Executive Summary that the Navy notified one Oregon newspaper and provided one Oregon library with the two-volume copy of the EIS for public review before the 30th hearing - that simply did not happen.

Attached here, you will find a statement by the Lincoln City News-Guard editor explaining in detail about not receiving any notification by the Navy of the hearing and finding out on their own from their sister Tillamook paper (via the Seattle Post-Intelligencer) on February 3, five days after the 30th meeting. You will find a short report from a Lincoln County Driftwood Library staff person we called later to determine if a

copy of the EIS was available for us to review. According to that person who took time to search of the EIS, he found it still boxed with no cover letter explaining it was time-related. He later called to report the EIS had been cataloged and shelved. This was February 13, 15 days after the January 30 meeting.

Concerning the proposed February 26th Public Hearing -

Unbelievably, the Navy has blundered again. By scheduling a second public hearing in Tillamook on Thursday, February 26 and not notifying the two most relevant weekly newspapers until Thursday the 19th, one day after their Wednesday editions, the Navy fails to comply again to provide the public with timely notice of a public hearing.

Our calls to the Tillamook Headlight-Herald and the Lincoln City News-Guard editors found that both papers will publish notice of the 26th hearing in their 25th editions, one day before the scheduled hearing. Hardly timely notification to meet NEPA requirements for a public hearing.

We understand a number of other print media elsewhere in the state may have been notified. But the newspapers most relevant and nearest to the event have not.

Our group recommends -

1. That the February 26 hearing be cancelled. If it isn't, a delegation will be sent, at some inconvenience because of cost; transportation and distance, to protest the legality of the hearing.
2. That the Navy reschedule three public hearings for Oregon just as they did for Washington. A good spread would be for Tillamook, Newport and Coos Bay much as where the Oak Harbor, Pacific Beach and Grays Harbor (which is not a city) hearings were held. Because Oregon has twice the Pacific coastline as Washington and an estimated double the coastal population with hundreds of fishing, crabbing and seafood enterprises and coastal recreation economies which will be impacted by the Navy's proposed installations and activities, we believe this request is justified.
3. That the Navy notify all 15 coastal newspapers of any upcoming hearings in a timely way and place the EIS volumes in the three coastal community libraries where hearings are scheduled for public review.
4. That the Navy make revisions in the EIS based on current science. Our knowledgeable readers tracked much of the scientific references back 20 to 30 years ago. Example: The references about the use and consequences of depleted uranium date back to data collected in the 1960s and 70s at Los Alamos from fresh water creeks after nuclear explosive activities. And nothing since.
5. That congressional aides check to see if similar inept procedures are taking place at eight other Range Complexes including : Hawaii, Atlantic Coast, Southern California, Key Port WA, Panama City FL, Gulf of Alaska, the Mariana Islands, Undersea Warfare Training Range off Jacksonville FL, We understand the Navy may be using this combination of hurry-up hearings in a misguided way of complying with terms of the December 2008 legal settlement if \$15 million in the Natural Resource Defense Council (NRDC) vs Winter (Sec. of the Navy) case. Staff at the Santa Monica NRDC office state that any such interpretation of the terms of that case is disingenuous.

Several observations and conclusions so far by our group -

Much more needs to be said about the Navy's Northwest Range Complex proposals. And you, no doubt, will hear more from Oregonians and others across the nation where our group and others have called, faxed, mailed and blogged on this topic.

However, our group's Number One concern is the legal one - Compliance.

Those in our group include several attorneys, two award-winning journalists, marine biologists, public school and higher education teachers, professional retirees and other interested Oregon citizens. Our history buffs remind us about the extraordinary work by William U'Ren in his 1902 introduction of the initiative and referendum ballot measure; Oswald West who in 1913, by fiat, declared Oregon beaches public; Dr. Bacon and Governors Straub and McCall who in 1967 pioneered the Beach Bill; and two activist women in the 1980s and 90s - Penelope Hull and Addaline Huff - whose efforts protected much of the Central Oregon coast. All were contributors to Oregon's strong citizen participation and coastal stewardship policies and traditions.

Each in our group say they were required in their professions to comply to local, state and federal mandates. And they hold that the Navy is no exception.

In this fairly short time to research, absorb and react, here are several initial observations and conclusions:

- \* The Navy has a pattern of inadequate and often invalid notification. Perhaps, some believe, with deliberate intent.
- \* The Navy wants a blank check to proceed with their plans to weaponize the Oregon coastal waters and evidently other range complexes mentioned earlier.
- \* The private contractors hired to author the EIS were on outcome assignments using out-dated science when independent marine scientists should be assigned the job.
- \* The civilian Navy personnel and presenters we met on the 30th were pleasant and polite. Those public affairs officers assigned the job of public notification were not properly trained. The blame for this Public Hearing debacle belongs to the military policy-makers who approved the extravagant and expensive giant full-color posters, graphics and publications and funded the seven-day excursion for the 19 presenters and panelists from Silverdale WA to Eureka CA and back - with several reporting to us how happy they were with the Newport turnout (only 15 or 16 stayed for the Public hearing) when "only five or six people" attended their Washington hearings. More important, the Navy failed in all the hearing sites in their most basic NEPA duty to provide notification about a major and extensive national military project.
- \* This attempt by the Navy to commendeer authority over our coastlands and ocean waters historically managed by the State of Oregon is unprecedented and without merit. During the 150 years since statehood, Oregon has won a national reputation for caretaking its ocean ecology, well-managing its fishing, crabbing and seafood resources and protecting its tourism economies. Equally significant, is our state's well-earned reputation for championing public participation in all arenas and making its beaches public.

The most important legal reference found by our group on this subject -

Ocean and Coastal Services Division - the state agency which administers Oregon's Coastal Management Program that "has authority under federal law to review federal programs and activities for consistency with Oregon's federally approved coastal program standards." (See P. 72, Oregon Blue Book 2007-2008)

In review -

1. Please contact the Secretary of Navy again to cancel the February 26 hearing which has had inadequate public notice and once more fails in complying with NEPA requirements.
2. Reschedule three public hearings for Oregon as were scheduled for Washington.
3. Demand timely public notice be placed in all 15 coastal newspapers about all scheduled hearings and EIS volumes be placed in the three hearing community libraries for public review.
4. Recommend independent marine scientists be hired to update and revise the EIS with current science.
5. Remind the Navy policy-makers of Oregon's rights and commitments to managing its ocean resources and enjoin that group to find a copy of the Oregon Blue Book and make reference to our state's authority found in the Ocean and Coastal Services Division.

Finally -

The founders understood this potential problem arising between the military and the states:

"He (the King) has affected to render the Military independent of and superior to the Civil Power."

Declaration of Independence - July 4, 1776

Today, some concerned Oregonians question how can the Navy be trusted to safely operate air target services and conduct underwater demolitions when it hasn't performed its duty to make notification of public hearings.

#

Respectfully submitted,

*Charlotte Mills*

Charlotte Mills  
(541) 528-7309 / FAX - Same

**From:** "Info" <info@thenewsguard.com>  
**To:** "Carol Van Strum" <cv@sco.net>  
**Sent:** Monday, February 09, 2009 9:01 AM  
**Attach:** delicious.small.gif; NWTRC Draft Final NOPH News Release 2.doc  
**Subject:** Re: Charlotte Mills discussion re: Navy

Hi Carol,

We didn't find out about the meeting until it had already been held. One of my colleagues at our sister paper in Tillamook heard about it after finding the article "Navy Proposes Increased Activity Off Oregon" online on Feb. 2. I'm not sure if she was tipped off to the article by a reader or discovered it on her own. After that, my reporter, Patrick Alexander, started doing some digging and was able to get the attached press release, again on Feb. 2, so at least we could let folks know a little about what was going on before the deadline passed (we're a weekly published on Wednesdays). We will have a follow-up in the Feb. 11 paper. As for public notice, the only newspaper in Lincoln County that the Navy ran legals in was the Newport News-Times. They technically serve the whole county, but a lot of North County readers subscribe only to our newspaper. The Navy, however, would not have known this and could have thought they were reaching out to the whole county. I'm not sure why the News-Times didn't do something in advance, although the editorial department doesn't take care of the legals and might not have seen them, but they were at the meeting at least.

Hope that helps. □

□  
 Allyson Longueira  
 Managing Editor  
 The News Guard  
 930 S.E. Highway 101  
 Lincoln City, OR 97367  
 (541) 994-2178  
 info@thenewsguard.com

Report about the EIS sent by the Navy to the Lincoln City Driftwood Library -

On Feb. 13, a call was made to the Lincoln City Driftwood Library. Librarian Ken Hopson searched for the EIS and later called back reporting he had found the EIS still boxed with no cover-letter explaining that the contents were time-related. Hopson regreted the delay explaining that the library's small staff was not always able to process every item daily. They depend on those who submit items to know the importance of well-identifying items that are time-related. (I failed to ask about a date that might have been available of when the EIS was shipped.)

So, on Feb. 13, the EIS was cataloged and shelved and made available for citizens to review. This was 15 days after the Jan. 30 public hearing in Newport.

Hopson asked a good question. If the hearing was scheduled for Newport, why wasn't the EIS sent to the Newport Public Library? Or better still, why wasn't it sent to the Guinn Library located at the Hatfield Marine Science Center - where the public hearing was to take place?

2/10/2009

Dorian Lee Alexanderson of Newport was named to the 2008 fall term Dean's List at Central Oregon Community College in Bend.  
 Inclusion on the Dean's List is based on enrollment in 12 or more credit hours and a GPA of 3.60 or above.

for Fall Term 2008 at Oregon Institute of Technology. Sleeper is majoring in computer engineering technology.  
 Inclusion on the Dean's List requires a GPA of 3.30 to 3.69. Only full-time students carrying 12 or more credit hours are eligible for honors.

**Get the scoop.** We're dishing out Lincoln County news.

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 www.windsofpraise.com

U.S. Navy Northwest Training Range Complex Draft EIS/OEIS Available for Public Comment Dec. 29, 2008 - Feb. 11, 2009

The U.S. Navy has prepared a Draft Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS) for the Northwest Training Range Complex. The Draft EIS/OEIS is available for public comment through February 11, 2009.

**Open House Sessions & Public Hearings**  
 Open House: 5 - 7 p.m.  
 Public Hearing: 7 - 8:30 p.m.

**Oak Harbor, WA:**  
 January 27, 2009

**Pacific Beach, WA:**  
 January 28, 2009

**Grays Harbor, WA:**  
 January 29, 2009

**Newport, OR:**  
 January 30, 2009

**Eureka, CA:**  
 February 2, 2009

**FOR MORE INFORMATION:**  
 OR TO SUBMIT COMMENTS ONLINE,  
 visit [www.NWTRCComplexEIS.com](http://www.NWTRCComplexEIS.com)  
 All comments must be received by February 11, 2009.

**PROPOSED ACTION**  
 The Navy proposes to support current, emerging and future military activities in the Northwest Training Range Complex to achieve and sustain military readiness. Three alternatives are analyzed in the Draft EIS/OEIS. Under the No Action Alternative, military activities would continue at current levels. Alternatives 1 and 2 propose increased military activity. Alternative 2 also proposes enhancements to range capabilities.

Copy of ad placed by the Navy in Newport News-Times.

Note poorly designed in heavy black ink with type set in 6 and 8 point type.

Note position under a similar black ad for a Christian Radio station.

The Newport event falls near the bottom of the ad.

All in all, this is a cheap ad with the Newport event almost imperceivable.

It appears in marked contrast to the extravagant, expensive, full-color materials produced and displayed at the Jan. 30 hearing in Newport.

Could the strategy be - Don't encourage attendance but impress the few who manage to attend?

During the month to the News-Times time offer, new

The News-Times advertising in I Friday each w

To take advantage and mail with subscription.

DO YOU? For the same get another year.

get a reward "Renewing Sign along with your current subs

Harry! You m

Name Delivery Address Mailing Address

Phone Number

Mail to: News-Times This offer is valid for address completed prior to 6:00 am

News-Times Jan 28, 2009 B-4



**Opposed to Weaponizing Oregon**  
480 E. Buck Creek Rd.  
Tidewater, Oregon 97390

\*Regarding U.S. Navy's Plan to Deploy  
Mines, Explosives, and Target Devices  
Along Oregon Coastline



Special report on how the Environmental Impact Statement meant for Tillamook Library was handled -

Tillamook librarian Sarah Beeler explained that the two-volume EIS did arrive at the Tillamook Library sometime ago. When she examined the container box and correspondence, she discovered that the cover letter was addressed to the Newport Public Library but the address on the box and letter showed the address for the Tillamook Public Library.

Consequently, Beeler forwarded the box and correspondence on to the Newport Public Library.

A call to the Newport Public Library today (2/26/09) indicated that this library received a two-volume copy of the EIS "sometime ago" and then received a second EIS just a few days ago.

So - Newport Public Library now has two copies. And the Tillamook Public Library has no copy for public review. That means the Tillamook community where the 26th hearing is taking place has had no opportunity to examine or review the EIS.

Newport librarian reports the first copy is available at the Reference Desk. Can be used but not taken out. The second EIS is being cataloged and shelved asap. Librarian is eager to know if they should send the second copy back to Tillamook Library.

Conclusion -

It appears that either the Silverdale Navy staff or their Public Affairs Agency KATZ failed to provide the Tillamook Library or that community with the EIS as it is believed they were required to do according to the NEPA requirements.

This compounds the problem with the Navy's failure to notify the 16 Oregon coastal newspapers in a timely way. Five received no notice. Nine received notice too late for their weekly deadline during week of Feb. 16. Two papers - Astoria Daily Astorian and Newport News-Times - received notice in time for Astorian's 24th edition and the News-Times Friday 20th edition. Reedsport Post responded to no calls.

Consequently, eight of the nine coastal papers did publish the notice on 25th editions. The Florence Siuslaw News evidently received the notice too late for their Wed. or Fri. papers during week of 16th. Received notice sometime during week of 23rd but failed to run story in their 25th edition.

#

Contact Us - Katz & Associates - Public Affairs, Community Relations, Issues Management...

**Katz & Associates**

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PR Firm Hired by NAVY to evidently place Public Hearing ads and to perhaps also send news releases about Navy Public Hearings.

Later - Shelia Murrey reports that KATZ is hired by the Navy to place ads and provide copies of EIS to "repositories" - or libraries where public hearings are to take place.

Trouble is that the EIS copies did not always get placed in the communities where the public hearings took place.

**Contact Us**

Katz & Associates office locations.

The Silverdale Public Affairs offices for the Navy is in charge of sending news releases and other notifications to media in WA, OR and CA.

**Corporate Headquarters**

4250 Executive Sq., Suite 670  
San Diego, CA 92037  
(858) 452-0031 Main  
(858) 552-8437 Fax

**Orange County**

12 Woodhaven Drive  
Laguna Niguel, CA 92673  
(949) 661-5875 Main

**Sacramento**

1801 I Street  
Sacramento, CA 95811  
(916) 492-0923 Main  
(916) 492-0927 Fax

**Seattle**

8234 B 17th Avenue NE  
Seattle, WA 98115  
(206) 453-3380 Main  
(206) 453-3382 Fax

<http://www.katzandassociates.com/contact-us.html>

2/20/2009

## Navy extending public comment period

The Navy is further extending the public comment period for the Northwest Training Range Complex Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) to March 11, 2009 to allow for additional public input. There will also be an additional public hearing event held on Feb. 26, 2009, at the Tillamook County Fairgrounds Auditorium at 4603 E. Third St. in Tillamook, Ore. The public hearing will begin with an open house information session beginning at 5 p.m. and a public hearing beginning at 7 p.m. The Navy is making a special allowance within this National Environmental Policy

Act (NEPA) process, due to public comments received. This EIS/OEIS examines the potential environmental effects of the Navy's proposal for future range management operations and activities. The Northwest Training Range Complex consists of numerous individual training areas in the Pacific Northwest. The range complex extends westward in the Pacific Ocean -- up to 250 nautical miles beyond the coast of Washington, Oregon, and Northern California. For more information on this project, and several ways to provide public comment by the newly extended deadline, please visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com).

Public Comment Period Extended to March 11, 2009. A special Public Hearing for the U.S. Navy Northwest Training Range Complex EIS/OEIS.

The Navy is further extending the public comment period for the Northwest Training Range Complex Draft Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS) to March 11, 2009, to allow for additional public input.

**Where to get the EIS/OEIS:**  
Visit our Web site to download the document or to find a library with a copy.

**Submit written comments to:**  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98151-1101  
ATTN: Mrs. Kimberly Kier - NWTRC EIS

**For more information**  
or to submit comments online:  
visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)

All comments must be received by March 11, 2009.

Note both Tillamook Public Hearing story and ad arrived only in time for this paper's Feb. 25 weekly edition - one day before the hearing scheduled for Feb. 26th.

NEPA regulations call for "early notification." This story and ad do not qualify to be "early notification."

Note size this ad. We understand this is the same ad that KATZ P.R. firm provided to some papers. But we haven't been able to determine which papers - except this one.

Our group calls attention to the contrast between the extravagant presentation materials provided at the public hearings and the cheap, poorly-designed ads paid for by KATZ set in 4 pt and 6pt type. Ads which are both difficult to read and appear insignificant to readers.

...at Oregon ... technology Sleeper ... computer engi ...

...Dean's List ... 7:30 to 3:60 ... clients carrying ... hours are ch ...

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U.S. Navy Northwest Training Range Complex Draft EIS/OEIS Available for Public Comment Dec. 29, 2008 - Feb. 11, 2009

Open House Sessions & Public Hearings

Open House: 5 - 7 p.m.  
Public Hearing: 7 - 8:30 p.m.

**Oak Harbor, WA:**  
January 27, 2009  
Oak Harbor School District Office  
ASC Board Room  
350 S. Oak Harbor Street  
Oak Harbor, WA 98277

**Pacific Beach, WA:**  
January 28, 2009  
Pacific Beach Fire Hall  
4588 State Route 109  
Pacific Beach, WA 98571

**Grays Harbor, WA:**  
January 29, 2009  
Grays Harbor College Cafeteria  
1620 Edward P. Smith Drive  
Aberdeen, WA 98520

**Newport, OR:**  
January 30, 2009  
Hatfield Marine Science Center  
2030 S.E. Marine Science Dr.  
Newport, OR 97365

**Eureka, CA:**  
February 2, 2009  
Eureka Women's Club  
1531 J Street  
Eureka, CA 95501

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Rules - Council on Env. Quality

Sec. 102 [42 USC § 4332]. National Environmental Policy Act (NEPA)

The Congress authorizes and directs that, to the fullest extent possible: (1) the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this Act, and (2) all agencies of the Federal Government shall -

(A) utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man's environment;

(B) identify and develop methods and procedures, in consultation with the Council on Environmental Quality established by title II of this Act, which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations;

(C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment a detailed statement by the responsible official of --

- (i) the environmental impact of the proposed action,
- (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,
- (iii) alternatives to the proposed action,
- (iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and
- (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

Prior to making any detailed statement, the responsible Federal official shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Copies of such statement and the comments and views of the appropriate Federal, State, and local agencies, which are authorized to develop and enforce environmental standards, shall be made available to the President, the Council on Environmental Quality and to the public as provided by section 552 of title 5, United States Code, and shall accompany the proposal through the existing agency review processes;

(D) Any detailed statement required under subparagraph (C) after January 1, 1970, for any major Federal action funded under a program of grants to States shall not be deemed to be legally insufficient solely by reason of having been prepared by a State

agency or official, if:

- (i) the State agency or official has statewide jurisdiction and has the responsibility for such action,
- (ii) the responsible Federal official furnishes guidance and participates in such preparation,
- (iii) the responsible Federal official independently evaluates such statement prior to its approval and adoption, and
- (iv) after January 1, 1976, the responsible Federal official provides early notification to, and solicits the views of, any other State or any Federal land management entity of any action or any alternative thereto which may have significant impacts upon such State or affected Federal land management entity and, if there is any disagreement on such impacts, prepares a written assessment of such impacts and views for incorporation into such detailed statement.

The procedures in this subparagraph shall not relieve the Federal official of his responsibilities for the scope, objectivity, and content of the entire statement or of any other responsibility under this Act; and further, this subparagraph does not affect the legal sufficiency of statements prepared by State agencies with less than statewide jurisdiction.

- (E) study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources;
- (F) recognize the worldwide and long-range character of environmental problems and, where consistent with the foreign policy of the United States, lend appropriate support to initiatives, resolutions, and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of mankind's world environment;

(G) make available to States, counties, municipalities, institutions, and individuals, advice and information useful in restoring, maintaining, and enhancing the quality of the environment;

(H) initiate and utilize ecological information in the planning and development of resource-oriented projects; and

(I) assist the Council on Environmental Quality established by title II of this Act.

See p. 72  
Depth  
Rule  
Book

# NORTHWEST



Training Range Complex Environmental Impact Statement / (3)  
Overseas Environmental Impact Statement (EIS/OEIS)

## NEPA Process and Community Involvement

### Why is the Navy preparing an EIS/OEIS?

The Navy has prepared the Draft EIS/OEIS to assess the potential effects on the environment from the Navy's current, ongoing and potential activities as it plans for the future.

The National Environmental Policy Act (NEPA) of 1969 requires federal agencies to examine the environmental effects of their activities. An Environmental Impact Statement (EIS) is a detailed public document that provides an assessment of the potential effects a federal action might have on the human, natural or cultural environment. An Overseas Environmental Impact Statement (OEIS) has been prepared to comply with Executive Order 12114, Environmental Effects Abroad of Major Federal Actions (1979). This order requires federal agencies to consider the effects of actions on the environment outside U.S. territorial waters.

### How can the community be involved? OPEN HOUSES AND PUBLIC HEARINGS

The Navy is holding five open houses and public hearings in three states to inform the public about the Proposed Action and to receive public comments on the environmental analysis contained in the Draft EIS/OEIS. During the open house sessions, informational poster stations and Navy project team representatives will be available to provide the public with an opportunity to learn more about the NEPA process, the Proposed Action and alternatives, and the results of the environmental analysis.



### The Navy Wants to Hear from You!

Submit oral and/or written comments at the public hearing or by mail.

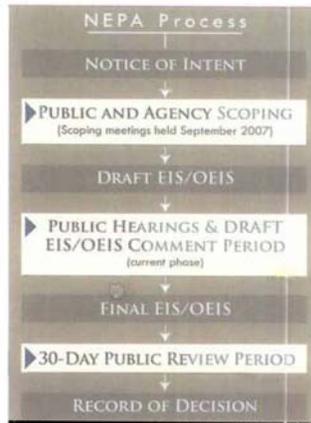
Visit the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) to submit written comments online.

All comments received by February 11, 2009, will be considered and responded to in the Final EIS/OEIS.

### Where can I find more information?

The Navy has established a Web site that makes it easy to find project documents and additional information. The Web site also provides background information on environmental topics referenced in project documents.

Project information and environmental documents may also be viewed at the following information locations:



Steps of the NEPA process. Boxes with arrows indicate opportunities for the public and interested stakeholders to provide input.

### INFORMATION REPOSITORIES:

Oak Harbor Public Library	1000 SE Regatta Drive	Oak Harbor, WA	Timberland Regional Library	420 7th Street	Hoquiam, WA
Port Townsend Public Library	1220 Lawrence Street	Port Townsend, WA	Humboldt County Library	1313 4rd Street	Eureka, CA
Jefferson County Rural Library	620 Cedar Avenue	Port Hadlock, WA			
Kitsap Regional Library	1301 Sylvan Way	Bremerton, WA			

### Community Services Division

Address: 635 Capitol St. NE, Suite 150, Salem 97301-2540 (Field Offices in Bend, Central Point, Eugene, La Grande, Portland, and Waldport)

Phone: 503-373-0050

Fax: 503-378-5518

Web: <http://www.oregon.gov/LCD/index.shtml>

Contact: Darren Nichols, Manager

Duties and Responsibilities: The Community Services Division is composed of regional representatives who assist local governments in the implementation of the statewide land use planning program by providing technical and educational assistance to local government planners and officials, the general public, and interest groups. The division also provides financial assistance to urban and rural communities.

Measure 37 Services Division

Address: 635 Capitol St. NE, Suite 150, Salem 97301-2540

Phone: 503-373-0050

Fax: 503-378-6033

Web: <http://www.oregon.gov/LCD/index.shtml>

Contact: Michael Morrissey, Manager

Duties and Responsibilities: The Measure 37 Services Division receives, evaluates and resolves claims submitted to the state under Measure 37, Measure 37, as provided under ORS Chapter 197, states that the owner of private real property is entitled to receive just compensation when a land use regulation is enacted after the owner or a family member became the owner of the property if the regulation restricts the use of the property and reduces its fair market value. In lieu of compensation, the measure also provides that the government responsible for the regulation may choose to "remove, modify or not apply" the regulation.

Ocean and Coastal Services Division

Address: 635 Capitol St. NE, Suite 150, Salem 97301-2540 (Field Offices in Portland and Waldport)

Phone: 503-373-0050

Fax: 503-378-6033

Web: <http://www.oregon.gov/LCD/index.shtml>

Contact: Robert Bailey, Manager

Duties and Responsibilities: The Ocean and Coastal Services Division works with coastal cities, counties, and state and federal agencies to administer Oregon's federally approved Coastal Management Program, which emphasizes conservation of estuaries, shorelands, beaches and dunes, and ocean resources. The division provides financial and planning assistance to local governments, implements a coastal hazards and assessment pro-

### Operations Services Division

Address: 635 Capitol St. NE, Suite 150, Salem 97301-2540

Phone: 503-373-0050

Fax: 503-378-6033

Web: <http://www.oregon.gov/LCD/index.shtml>

Contact: Teddy Leland, Manager

Duties and Responsibilities: The Operations Services Division provides services in the following areas: human resources, labor relations, budget, accounting, purchasing, payroll, safety, space and facility management, mail distribution, information systems, landowner notification, agency policy and procedure development, inventory and property control, and reception.

Planning Services Division

Address: 635 Capitol St. NE, Suite 150, Salem 97301-2540

Phone: 503-373-0050

Fax: 503-378-5518

Web: <http://www.oregon.gov/LCD/index.shtml>

Contact: Rob Hallybenton, Manager

Duties and Responsibilities: The Planning Services Division provides specialized technical assistance and policy consultation to DCLD's regional representatives serving local government and citizens. The division includes the Economic Development Planning Team and the Transportation and Growth Management Program. The division also includes specialists dealing with urban development, farm and forest land protection, mineral and aggregate resources, natural resource management, and floodplain management.

Land Use Board of Appeals

Address: Public Utility Commission Bldg., 550 Capitol St. NE, Suite 235, Salem 97301-2552

Phone: 503-373-1265; TTY: 503-373-1265

Fax: 503-373-1580

Web: [www.oregon.gov/LUBA](http://www.oregon.gov/LUBA)

Contact: Tod A. Basham, Board Chair

Statutory Authority: ORS 197.810

Duties and Responsibilities: The Land Use Board of Appeals (LUBA) was created by legislation in 1979 and has exclusive jurisdiction to review all governmental land-use decisions, whether legislative or quasi-judicial in nature. LUBA was created to simplify the appeal process, speed resolution of land-use disputes and provide

### consistent interpretation of state and local land-use laws.

The governor appoints the three-member board to serve four-year terms, subject to senate confirmation. The board members serving on LUBA must be members of the Oregon State Bar.

### LANDSCAPE ARCHITECT BOARD, STATE

Address: 1193 Royvonne Ave. SE, #19, Salem 97302

Phone: 503-589-0093

Fax: 503-485-2947

Web: <http://www.lca-board.org>

Contact: Paul L. Taylor, Executive Officer

Statutory Authority: ORS Chapter 199

Duties and Responsibilities: Operating under ORS 199.410-199.540, the commission's purpose is to guide the creation and growth of cities, special service districts and privately owned community water and sewer systems.

LIBRARY, OREGON STATE

Address: 250 Winter St. NE, Salem 97301-9500

Phone: 503-585-8059

Fax: 503-585-8059

Web: <http://oregon.gov/OSL>

Contact: Jim Schepke, State Librarian

Statutory Authority: ORS Chapter 357

Duties and Responsibilities: The State Library was established as the Oregon Library Commission in 1905 and today provides information services to approximately 27,000 state government employees.

The State Library also circulates library materials in cassette and Braille format to approximately 7,000 print-disabled Oregonians and provides grants and assistance to help develop and improve local library services, and to foster greater cooperation among all of Oregon's libraries.

Since its founding, the State Library has been governed by an independent Board of Trustees. The present board consists of seven citizens from throughout the state who are appointed by the governor to serve four-year terms.

LIQUOR CONTROL COMMISSION, OREGON

Address: 9079 SE McLoughlin Blvd., Portland 97222-7355

Phone: 503-872-5000; Toll-free: 1-800-452-6522

Fax: 503-872-5266

Web: [www.oloc.state.or.us](http://www.oloc.state.or.us)

Contact: Steve Pinaro, Executive Director

Statutory Authority: ORS Chapters 471, 472, 473

Duties and Responsibilities: The five citizen commissioners set policy for the Oregon Liquor Control Commission (OLCC). They are appointed by the governor to four-year terms, subject to senate confirmation, each representing a state

2007-2008 Oregon Blue Book

From: "Info" <info@thenewsguard.com>  
 To: "Carol Van Strum" <cvs@casco.net>  
 Sent: Monday, February 09, 2009 9:01 AM  
 Attach: delicious.small.gif; NWTRC Draft Final NOPH News Release 2.doc  
 Subject: Re: Charlotte Mills discussion re: Navy

Hi Carol,

We didn't find out about the meeting until it had already been held. One of my colleagues at our sister paper in Tillamook heard about it after finding the article "Navy Proposes Increased Activity Off Oregon" online on Feb. 2. I'm not sure if she was tipped off to the article by a reader or discovered it on her own. After that, my reporter, Patrick Alexander, started doing some digging and was able to get the attached press release, again on Feb. 2, so at least we could let folks know a little about what was going on before the deadline passed (we're a weekly published on Wednesdays). We will have a follow-up in the Feb. 11 paper. As for public notice, the only newspaper in Lincoln County that the Navy ran legals in was the Newport News-Times. They technically serve the whole county, but a lot of North County readers subscribe only to our newspaper. The Navy, however, would not have known this and could have thought they were reaching out to the whole county. I'm not sure why the News-Times didn't do something in advance, although the editorial department doesn't take care of the legals and might not have seen them, but they were at the meeting at least.

Hope that helps. ☐

☐  
 Allyson Longueira  
 Managing Editor  
 The News Guard  
 930 S.E. Highway 101  
 Lincoln City, OR 97367  
 (541) 994-2178  
 info@thenewsguard.com

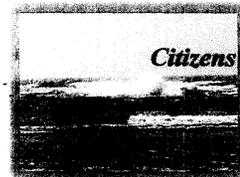
Report about the EIS sent by the Navy to the Lincoln City Driftwood Library -

On Feb. 13, a call was made to the Lincoln City Driftwood Library. Librarian Ken Hopson searched for the EIS and later called back reporting he had found the EIS still boxed with no cover-letter explaining that the contents were time-related. Hopson regretted the delay explaining that the library's small staff was not always able to process every item daily. They depend on those who submit items to know the importance of well-identifying items that are time-related. (I failed to ask about a date that might have been available of when the EIS was shipped.)

So, on Feb. 13, the EIS was cataloged and shelved and made available for citizens to review. This was 15 days after the Jan. 30 public hearing in Newport.

Hopson asked a good question. If the hearing was scheduled for Newport, why wasn't the EIS sent to the Newport Public Library? Or better still, why wasn't it sent to the Guinn Library located at the Hatfield Marine Science Center - where the public hearing was to take place?

2/10/2009



**Citizens Opposed to Weaponizing Oregon Coast\***  
 480 E. Buck Creek Rd.  
 Tidewater, Oregon 97390

\*Regarding U.S. Navy's Plan to Deploy  
 Mines, Explosives, and Target Devices  
 Along Oregon Coastline



Special report on how the Environmental Impact Statement meant for Tillamook Library was handled -

Tillamook librarian Sarah Beeler explained that the two-volume EIS did arrive at the Tillamook Library sometime ago. When she examined the container box and correspondence, she discovered that the cover letter was addressed to the Newport Public Library but the address on the box and letter showed the address for the Tillamook Public Library. Consequently, Beeler forwarded the box and correspondence on to the Newport Public Library.

A call to the Newport Public Library today (2/26/09) indicated that this library received a two-volume copy of the EIS "sometime ago" and then received a second EIS just a few days ago.

So - Newport Public Library now has two copies. And the Tillamook Public Library has no copy for public review. That means the Tillamook community where the 26th hearing is taking place has had no opportunity to examine or review the EIS.

Newport librarian reports the first copy is available at the Reference Desk. Can be used but not taken out. The second EIS is being cataloged and shelved asap. Librarian is eager to know if they should send the second copy back to Tillamook Library.

Conclusion -

It appears that either the Silverdale Navy staff or their Public Affairs Agency KATZ failed to provide the Tillamook Library or that community with the EIS as it is believed they were required to do according to the NEPA requirements.

This compounds the problem with the Navy's failure to notify the 16 Oregon coastal newspapers in a timely way. Five received no notice. Nine received notice too late for their weekly deadline during week of Feb. 16. Two papers - Astoria Daily Astorian and Newport News-Times - received notice in time for Astorian's 24th edition and the News-Times Friday 20th edition. Reedsport Post responded to no calls.

Consequently, eight of the nine coastal papers did publish the notice on 25th editions. The Florence Siuslaw News evidently received the notice too late for their Wed. or Fri. papers during week of 16th. Received notice sometime during week of 23rd but failed to run story in their 25th edition.

#



## Opposed to Weaponizing Oregon Coast

480 E. Buck Creek Rd.  
Tidewater, Oregon 97390

\*Regarding U.S. Navy's Plan to Deploy  
Mines, Explosives, and Target Devices  
Along Oregon Coastline



THEODORE R. KULONGOSKI  
GOVERNOR

February 18, 2009

Survey of Oregon's 16 Coastal Newspapers re Feb. 26th Public Hearing in Tillamook OR  
Score: Five received no notice/ Eight received notice late/ Two ran on 20th & 24th.

Astoria Daily Astorian - Notice arrived on Feb. 24. So it appeared on P.3 that day because this paper is a daily. Public got a two day notice.

Bandon Western World - Editor said they received no ad nor news release.

Brookings Curry Coastal Pilot - Editor received an earlier story from their Washington D.C. news service - WestCom - which ran on Feb. 18. But it was on the March 11 extension for public comment. No ad and no notice on Feb. 26 hearing.

Coos Bay World - Editor says they got notice too later for their weekly deadline Feb. 18. So notice ran on Feb. 25. One day before 26th hearing.

Coquille Sentinel - Is located 20 miles from coast but has readership in that coastal area. Our group the name & location of this paper to Silverdale staff on their request weeks ago. No ad and no notice.

Florence Siuslaw News - Received sometime the week of Feb. 16th or 23rd. But did not get published in either of their bi-weekly editions of Wed. and Sat. Staff not sure of receiving an ad when we called.

Gold Beach Curry County Reporter - Did receive a notice too late for their weekly edition of 18th. Did publish notice on 25th. One day prior to 26th hearing.

Lincoln City News-Guard - Did receive notice too late for their Wed. edition Feb. 18. Did publish on 25th. One day before 26th hearing.

Newport News-Times - Did received notice in time for their Friday edition on Feb. 20. So readers could have read of hearing six days before 26th hearing. Newport is 100 miles from Tillamook and has little readership there. Only in the library perhaps.

Port Orford News - Editor reports receiving no ad or notice. Says he is ex-Navy vet and would like for Navy to put this paper on its print media list.

Reedsport Umpqua Post - Tried three times to contact this paper. Was unable to have answering service at office to ever answer.

Rogue River Press - Received no ad and no notice.

Seaside Sun - Received an ad notice on 20th. Ran ad on 26th. One day before 26th hearing. It was placed by the Public Relations Company KATZ. Editor did not say a story was notified or run.

Tillamook Headlight-Herald - Received notice too late for their Feb. 18th edition. Notice story ran 25th edition. One day before the 26th hearing. Contact could find no ad was sent or published.

Warrenton Columbia Press - Located only 60 miles from Tillamook. But received no ad or notice.

South Lincoln County News - Received notice too late for 18th edition. Ran ad and notice in their 25th edition. One day before the 26th hearing.

The Honorable Donald C. Winter  
Secretary of the Navy  
1000 Navy Pentagon  
Washington, DC 20350-1000

Dear Secretary Winter:

I am writing in regard to the draft Environmental Impact Statement/Overseas Environmental impact statement (EIS/OEIS) for the U.S. Navy's expanded use of the Northwest Training Range Complex off the Oregon coast. I recognize the importance of ensuring that our armed forces are well trained. Unfortunately, numerous Oregonians have contacted my office expressing frustration with the methods used by the Navy to inform them of the proposal. Many are also concerned about the potential effects that increased naval activity would have on marine wildlife, ocean access and safety, and water quality.

While I appreciate the recent decision to extend the EIS/OEIS comment period to February 18, 2009, one additional week does not provide the time required for the public to fully review and prepare comments on 1000 pages of technical information. Due to the Navy's failure to meaningfully engage the public in the development and review of this extremely complex proposal, I ask that you extend the comment deadline a full 60 days to April 11, 2009.

The history of the Navy's outreach to Oregon residents on the Training Range Complex is an important factor in my decision to request a longer comment period. Practically the entire coast of Oregon is affected by the proposal, yet only two public meetings have been held: one during scoping and one recently as a part of the draft EIS process. According to Navy representatives, the scoping meeting in the small community of Depoe Bay drew only four or five residents. The Navy's failure to conduct more extensive notification and outreach contributed to the lack of Oregonians tracking the proposal as it evolved. When the Navy held their January 30 public meeting in Newport on the draft EIS, many people were learning about this project for the first time.

As Navy representatives witnessed during their visit to Oregon last month, local residents and state resource managers had many questions about the draft EIS. Therefore I also ask that two additional public meetings be held along the Oregon coast as soon as possible to allow for

STATE CAPITOL, SALEM 97301-4047 (503) 378-3111 Fax (503) 378-4863 TTY (503) 378-4859  
WWW.GOVERNOR.STATE.OR.US

The Honorable Donald C. Winter  
February 18, 2009  
Page Two

further exchange of information and perspectives. I will ask my staff as well as representatives of several state agencies to attend those meetings in order to encourage a productive dialogue.

Please anticipate receiving formal comment letters from state agencies such as the Oregon Department of Fish and Wildlife and the Oregon Department of Environmental Quality regarding the Navy's activities proposed in the draft EIS. I encourage you to seriously consider their concerns and accept their recommendations. Should you have any questions about the State of Oregon's interest in the Northwest Training Range Complex, please contact Jessica Hamilton on my staff at (503) 986-6543.

Sincerely,

  
THEODORE R. KULON GOSKI  
Governor

TRK:jhab  
c. Mrs. Kimberly Kler, Department of the Navy

Congress of the United States  
Washington, DC 20515

February 6, 2009

The Honorable Donald C. Winter  
Secretary of the Navy  
1000 Navy Pentagon  
Washington, DC 20350-1000

Dear Secretary Winter:

We are writing to request an extension to the February 18, 2009 public comment deadline set for the draft Environmental Impact Statement/ Overseas Environmental impact statement (EIS/OEIS) for the U.S. Navy's expanded use of the Northwest Training Range Complex off the Oregon coast.

The EIS/OEIS was released on December 29, 2008 with an electronic copy available on the Northwest Training Range Complex website. However, many citizens who live in potentially affected areas along the Oregon coast have expressed concern and frustration at the lack of public notice and the limited time to provide official comments to the U.S. Navy. The EIS/OEIS is 1,068 pages of dense technical language and yet most Oregon coast residents were not aware of the proposal's existence until a January 30, 2009 public meeting in Newport, Oregon. In addition, coastal residents have raised questions and serious concerns about the impact of the Navy's plans on coastal fisheries, tourism, ongoing efforts to develop alternative energy sources, and marine mammal research.

We believe that successful and innovative projects in Oregon require an open, fair communication process between private businesses, government, and citizens. In light of the complex issues at stake and unanswered questions regarding the potential impact of the Navy's plans, we ask that you both extend the public comment period to April 11, 2009 and hold at least two additional public meetings in Oregon, including one in Tillamook County, to ensure that those who may be affected and wish to comment on the project may do so.

We appreciate your immediate attention on this matter. If you have any additional questions, please contact Alison Craig in Congressman Schrader's Oregon office at (503) 588-9100.

Sincerely,

  
RON WYDEN  
United States Senator

  
JEFF MERKLEY  
United States Senator

  
KURT SCHRADER  
Member of Congress

  
EARL BLUMENAUER  
Member of Congress

  
PETER DEFAZIO  
Member of Congress

  
DAVID WU  
Member of Congress

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# NEWS TIMES

Friday  
February 6, 2009

## Navy hearing draws intense criticism

Officials, residents  
request more time to  
comment on impact  
statement

By Terry Dillman  
Of the News-Times

About 40 folks representing a range of private and public interests showed up for a Jan. 30 public hearing conducted by officials from the U.S. Navy Region Northwest at Oregon State University's Hatfield Marine Science Center (HMSC).

Most were unhappy about what they considered a dearth of notification on a vital topic.

Navy officials want to boost training activities within the

Northwest Training Range Complex (NWTRC) - a series of individual naval training areas stretching along the coasts of Washington, Oregon, and northern California in use for more than 100 years - and create "enhancements" in those areas. The NWTRC is designed to "prepare Navy personnel for deployment and homeland defense by providing realistic training environments" - on land, in the air, and at sea. Training encompasses terrestrial, aircraft, submarine, and surface vessel operations; live firing at surface and air targets at sea; airborne surveillance activities; detecting, locating, and countering threat electronic signals; finding and removing underwater mines; and training Navy divers in a cold water situation.

### A sea change

Navy officials say they must occasionally reassess their training activities, and they want to escalate those activities already conducted within the NWTRC "to keep up with advances in technology and new national security challenges."

They say it's necessary to maintain fleet readiness to support current, emerging, and future training needs. Specifically, they want to add new air and sea surface targets and services for locally-based aircraft and vessels; develop an additional land-based electronic combat threat signal emitter (along the Washington coast) for offshore use by aircraft and vessels; develop a small-scale underwater training



Charlotte Mills, right, of Tidewater, discusses the potential effects of sonar on marine life with Navy researcher Martin Renker during a Jan. 30 public hearing at Oregon State University's Hatfield Marine Science Center. (Photo by Terry Dillman)

Continued on Page 12

minefield for submarines; and use a portable undersea tracking range for anti-submarine training. According to Navy officials, the range enhancements are vital to upgrading and modernizing the NWTRC to make sure they meet and exceed critical fleet requirements.

The NWTRC extends 250 nautical miles (about 288 miles) into the Pacific Ocean from the shoreline, encompassing more than 126,000 square nautical miles of ocean. It also covers more than 34,000 square miles of airspace, and 875 acres of land. Most of the range lies off the Washington coast and Puget Sound, which is home to the nation's third largest concentration of Navy forces.

But a large section of the range lies off the Oregon coast beyond the 12-mile territorial sea line, and - despite assurances from naval officials that the proposed sea change in activity will go largely unnoticed here - local officials and others are concerned about the potential impacts to fisheries and marine life.

That, in essence, is what the Jan. 30 hearing at HMSC focused on.

### Public outreach

The National Environmental Policy Act (NEPA) of 1969 requires federal agencies to examine the individual and cumulative (or additive) environmental effects of their activities, which means developing an environmental impact statement (EIS) to provide an assessment of those potential effects.

Toward that end, the Navy launched a public process that began with a notice of intent filed in the July 31, 2007 edition of the Federal Register, followed by a "scoping process" that included five open houses and public hearings, including one in Oregon - held Sept. 13, 2007 at the Spouting Horn Restaurant in Depoe Bay. The scoping process ended Sept. 29, 2007.

Project information and related environmental documents were sent to five public libraries in Washington, one in northern California, and one in Oregon - Driftwood Public Library in Lincoln City.

From there, Navy officials developed a draft EIS, which "went public" at the end of December 2008, again with initial notice in the Federal Register, launching a 45-day comment period.

Five public hearings were scheduled - three in Washington (Jan. 27, 28, and 29), one in northern California (Feb. 2), and the Jan. 30 session at HMSC.

An open house session began at 5 p.m., followed by the public hearing from 7 p.m. to 8:30 p.m.

Navy officials - among them Commander Matthew Miller, executive officer of the Naval Air Station on Whidbey Island and project manager John Moser - outlined the proposal and the preferred alternative, which they said is "designed to meet current and near-term training requirements."

They reviewed potential effects, both offshore and inshore, on marine life, resources, protection, and research; cultural resources; air and marine traf-

fic; socioeconomic; and public safety. They predicted minimal behavioral and physiological effects on marine mammals and fish from sonar and underwater sound of explosives, along with minimal mortality to marine life in the immediate vicinity of any explosives. They said underwater detonations would drop from 60 to four annual training events with the preferred alternative, greatly lessening the potential detrimental effects on critical habitats.

In fact, the draft EIS predicts minimal, if any, significant detrimental effects overall.

While the potential exists to economically impact commercial fishing from the use of the portable undersea tracking range and underwater training minefield, the EIS predicts "no socioeconomic effects" on commercial shipping and fishing interests, sport fishing and diving interests, and tourism activities.

Several who spoke at the hearing disagreed with those assessments.

"The Newport offshore fishery is very important," Terry Obestika, a Newport City Council member, told them, referring specifically to the salmon and tuna fisheries and the "adverse effect" sonar and other underwater noise could have on them. He asked them to consider "a taking provision for the fisheries." If Navy activities should be stopped, he asked them. He also referred to marine reserves, wave energy, and other pending activities each claiming for a piece of the ocean, and asked them to "reconsider the no-change option."

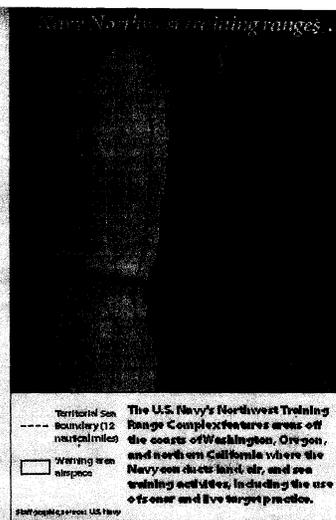
David Juckes, representing the Midwater Trawlers and Pacific Whiting cooperatives, noted the "economic engine" of the trawling and whiting fisheries provide for the Oregon coast by a "wide-ranging fleet" of vessels fishing in waters anywhere from 40 to 800 fathoms deep. He commended them for working cooperatively with the National Marine Fisheries Service (NMFS), but told them that "NMFS doesn't always work with us very well."

Because "there is a tremendous amount of fishing that goes on out here all the time" and the changes they are considering "could have a very large impact, but we don't know yet how extensive it could be," he asked for "more coordination with the fishing industry" to get feedback from the fishermen "right directly on the ocean."

Lincoln County Commissioner Terry Thompson, who noted he had logged more than 4,200 days at sea as a commercial fisherman, talked about the loss of eight vessels and 15 crew members he knew "who have died due to submarine activities." A submarine caught in a trawl net is the only thing he said could explain how a 75-foot vessel could be dragged sideways at eight knots.

Thompson noted the \$100-million economic impact from fishing "just in Lincoln County," and said the potential for a minefield that could keep fishermen out of prime fishing grounds "bothers me." He also cited the shells and other debris the Navy "leaves behind" after training exercises.

"Our fishing industry has done a lot to try to clean up the



Terrestrial Sea Boundary (12 nautical miles)  
Training in an airspace  
Photo by Terry Dillman

The U.S. Navy's Northwest Training Range Complex features areas off the coasts of Washington, Oregon, and northern California where the Navy sea-duck land, air, and sea training activities, including the use of sonar and live target practice.

bottom of the ocean, and for the Navy to leave debris on the bottom is not good," he said.

"It looks like the Navy doesn't have a very good understanding of the fishing industry," Thompson concluded, noting part of the EIS that fails to make a distinction between trawlers and trawlers. He suggested they "get with some commercial fishermen" and then go back and rework the EIS section about the fishing industry.

Bruce Mate, who heads up OSU's Marine Mammal Institute, but who spoke as a private citizen, said some aspects of the EIS would require periodic re-assessment, a before-and-after look, as it were.

"Risk is a condition of a species, a time, and a place," Mate noted. "We have very close access to deep water here. We've had stranding and beached whales along the coast for years." He urged them to seek "more quantification" that could lead to more effective assessment before proceeding.

### Inadequate notification?

Everyone who spoke at the HMSC gathering said they had received inadequate notification of the hearing, noting that they heard about it, at best, two days prior, at worst an hour before the open house started. All requested at least a 30-day extension of the comment period, and, at best, another public hearing followed by an extended comment period.

Sheila Murray, the Navy's environmental public affairs officer, and Kimberly Kler, the Navy's environmental planner for the project, said they advertised and sent out press releases prior to the hearing.

Navy-Times records show

the Navy submitted an ad published five times prior to the hearing: first on Dec. 31, 2008, and subsequently on Jan. 16, 21, 23, and 28. A few folks who saw the ad said they skipped past it. Others missed it completely, and had to dig back through past issues to find it.

The News-Times never received a press release.

Murray also provided a distribution list of public officials, government agencies, Native American tribes and nations, organizations, and individuals "who attended the public scoping meetings," provided comments during the scoping process, or have been identified by the Navy" for inclusion on the list. While it does include federal and state regulatory agencies, Gov. Ted Kulongoski, Oregon's federal legislators, and some state legislators, the only local agency listed is the Depoe Bay Nearshore Action Team, and the only local individuals were Jack Brown and Loren Goddard of Depoe Bay.

State Coastal Caucus members, the county commissioners, Newport city officials, agency leaders, and others say they only heard of the session through last minute word-of-mouth contact.

Charlotte Mills of Tidewater told them they failed to reach "thousands of people along the coast." She and others - as Mate put it - "hope we see you again" to revisit the matter.

The final EIS is scheduled for August 2009, followed by a 30-day public review period, with a record of decision expected in September. To find out more, go to [www.NWTRangeComplex-EIS.com](http://www.NWTRangeComplex-EIS.com).

Terry Dillman is the assistant editor of the News-Times. Contact him at 255-8371, ext. 225, or [terrydillman@newportnews-times.com](mailto:terrydillman@newportnews-times.com).

## News-Times Editorial

### Under the radar

A public hearing that most of the public didn't know about took place at Hatfield Marine Science Center on Jan. 30.

It focused on gleaning comments about a draft environmental impact statement (EIS) developed by the U.S. Navy to examine the effects of a proposal to ramp up naval training activities along the Pacific Northwest coast. About 40 folks showed up for the 90-minute session - the only one scheduled in Oregon, and one of only five overall in the three Pacific Coast states. Most said they heard about the session belatedly, and were understandably unhappy about what they considered a dearth of notification on a vital topic with potentially detrimental effects on marine life and fisheries.

They should be unhappy.

The U.S. Navy has for decades conducted crucial land, air, and sea warfare training exercises on and off the coasts of Oregon, Washington, and northern California in what is known as the Northwest Training Range Complex, set up for use by the nation's third largest concentration of Navy forces based at five installations in Washington. Now, Navy officials want to escalate those activities, with "enhancements" that include a small-scale underwater dummy minefield training course, and a boost in sonar use - within the range that extends 250 nautical miles (about 288 miles) from shore, encompasses 160,000 square miles of ocean, more than 34,000 square miles of airspace, and 875 acres of land.

The Navy is indeed a vital component of the nation's military, and proper training is a key aspect of readiness and response. But this was a one-time opportunity for the public to weigh anchor on the matter, and Navy officials scouted any possibility of effective, informed public input by launching a dinghy-sized notification effort.

They released the draft EIS at the end of December 2008 with little fanfare. They scheduled only five public hearings - three in Washington, one each in Oregon and California - and those bobbed to the surface almost 30 days after the clock started ticking on a 45-day public comment period scheduled to end Feb. 11. Holding public hearings on an EIS few folks know about with only 15 or fewer days remaining to peruse and respond to a 1,000-page document is absurd. They did place an ad five times (Dec. 31, Jan. 16, 21, 23, and 28) in the News-Times, but most folks missed or skipped over it because it was so non-descript. The News-Times never received a press release, and the Navy's distribution list for notification

News-Times, Newport, OR, Friday, February 6, 2009

proved woefully inadequate. State coastal regulators, the county commissioners, Newport city officials, agency leaders, and others say they only heard about the session through last minute word-of-mouth contact.

Navy officials say the escalation of training activities within the Northwest Training Range Complex is necessary to maintain fleet readiness to support current, emerging, and future training needs, and "to keep up with advances in technology and new national security challenges." Based on their limited contact list for this public hearing, they have seemingly failed to keep up with communication technology.

We believe Navy officials were simply treading water by attempting to fulfill the absolute minimum requirements for public notification and input under the National Environmental Policy Act of 1969. They essentially tried to "run silent, run deep" to avoid public sonar detection of this proposal, or to fly under the radar of public opinion as much as possible. They failed to meet full notification requirements and torpedoed any chance of proper public input on the matter.

At the very least, they should - as everyone who did get a chance to speak at the hearing suggested - extend the public comment period by 30 days. (td)

The News-Times editorial board consists of Mark Bryan (mb), Steve Card (sc) and Terry Dillman (td)

# NEWS GUARD

FEBRUARY 11, 2009 | WEDNESDAY  
LINCOLN CITY, OREGON

## Legislators push Navy for delay

Public comment period extended for one week

PATRICK ALEXANDER  
*The News Guard*

The U.S. Navy has agreed to give the public an extra week to comment on the environmental impact of expanded training activities off the Oregon Coast, shifting the deadline to Wednesday, Feb. 18.

The extension falls short of the 30 days requested by state Rep. Jean Cowan and the 60 days requested by U.S. Rep. Kurt Schrader, both of whom raised concerns after a recent feedback meeting in Newport only attracted about 40 people.

"There was poor communication in advance of the meeting," said Cowan, whose extension request was backed

by fellow coastal legislators. "No one has enough information to respond intelligently," she said.

The Navy is seeking comment on a draft environmental impact statement (EIS) that runs more than 1,000 pages, detailing the anticipated impact of an expansion of training activities in its Northwest Training Range Complex.

The complex runs from northern Washington to northern California, taking in all of Oregon's territorial waters and extending 250 nautical miles into the Pacific Ocean.

The Navy describes the area as its "backyard range" for ships, submarines and aircraft operating out of Washington's Puget Sound.

The Draft EIS estimates the environmental impact of two expansion alternatives.

See NAVY, Page A11

Story from Lincoln City News-Guard - the newspaper that the Navy claimed to have notified about the Jan. 30, 2009 Public Hearing. They never received any notification. Had to go on line to discover on their own about the Public Hearing five days after the hearing on Jan. 30.

The News-Guard and their reporter Patrick Alexander has subsequently reported on the Navy proposals with perhaps the most detail - especially about the depleted uranium issue and the about the increase in missiles, shells, bullets and other ammunition that the Navy is proposing in their Alternatives for the public to comment on.

## Navy seeks to expand training range

Continued from Page A1

both of which would lead to increased use of sonar and result in more spent ordnance, including shells, bombs and missiles, being left in the ocean.

The Navy's preferred alternative would also see physical enhancements to the range, including a small dummy underwater minefield.

The document compares these alternatives with a "no action" option, which would leave current training levels unaltered.

Sheila Murray, environmental public affairs officer for the Navy's northwest region, said any expansion is most likely to affect the fishing industry rather than coastal residents.

"People who live inland or along the coast really are not going to see any difference," she said. "What you see today is what you are going to see tomorrow."

Lincoln County Commissioner Terry Thompson said the Navy's representatives at the Jan. 30 meeting were "first-class individuals" who were willing to listen to the fishing industry's concerns.

Among those concerns are the snagging risks posed by spent ordnance, abandoned equipment anchors and the potential dummy minefield, for which no location has yet been set.

The Navy's preferred alternative would increase the number of missiles used from 10 to 57, shells from 25,856 to 53,343 and bullets from 59,724 to 119,720. The draft EIS says a small amount of the ammunition used might contain depleted uranium.

"We are making major efforts to try and clean up marine debris," Thompson said. "Now all of a sudden, we find out they are going to fire a bunch of rockets into the ocean."

The Navy has said the increase in spent ordnance must be considered in

### Lack of public notice described as 'concerning'

The Navy's attempts to make the public aware of the proposed training expansion have been criticized as substandard by local, state and federal representatives.

The Navy placed ads in the Newport News-Times to publicize the Jan. 30 feedback meeting, the sole Oregon newspaper the Navy contacted before that meeting.

Sheila Murray, environmental public affairs officer for the Navy's northwest region, said she sent the News-Times a press release on two occasions in January after the publication showed up top in a Google search for newspapers in Newport.

The News-Times said it did not receive the release.

The Navy also sent copies of the draft EIS to numerous regulatory agencies and elected officials at state and federal levels as well as everyone who attended one of five initial scoping meetings in September 2007.

the context of the vast area covered by the training complex.

Concerns have also been raised about the Navy's desire to increase its use of sonar from 90 hours-per-year to 150, the majority of which would depend upon the construction of the dummy minefield.

"According to the draft EIS, the Navy's preferred alternative would increase the amount of potentially harmful sonar exposure incidents involving marine mammals from 108,807 to 128,583.

The document says sonar can cause behavioral shifts in marine mammals as well as temporary or, in extreme cases, permanent hearing loss.

Oregon's scoping meeting took place in Depoe Bay's Spouting Horn Restaurant and was poorly attended, leading to just three Depoe Bay residents and the City's Near Shore Action Team being sent copies of the draft EIS.

Neither the Lincoln County government nor the Lincoln City government were sent a copy of the draft EIS or made aware of the Jan. 30 meeting.

"We should have been notified about that," Lincoln City Manager David Hawker said.

Meanwhile, it took a late night Jan. 28 phone call from Dr. Bruce Mate of OSU to alert state Rep. Jean Cowan and Lincoln County Commissioner Terry Thompson to the meeting.

Mate, director of the Marine Mammal Institute at Hatfield Marine Science Center, found out about the meeting by chance from Oregon

Dr. Bruce Mate, director of the Marine Mammal Institute at Hatfield Marine Science Center, said the Navy's need to keep operational details secret makes it difficult to assess the sonar risk to particular species.

"Normally you would ask 'who, where and when?'" he said. "We can't identify the 'who,' which is the species that will be at risk, unless we know where and when."

Mate said some scientists believe sonar can frighten beaked whales, causing them to flee to the surface without properly decompressing, risking death from a version of the bends.

The Navy's preferred alternative would also see an increase in air com-

bat training, which would include the use of live missiles.

However, it appears these exercises would be confined to waters off the Washington Coast, with the local flight warning area, which runs from Newport to Astoria, primarily used for surveillance training.

The draft EIS can be downloaded from [www.nwtracompexis.com](http://www.nwtracompexis.com) or viewed at the Driftwood Public Library.

Feedback can be submitted online or by mail to Naval Facilities Engineering Command Northwest, ATTN: Mrs. Kimberly Kler, NWTRC EIS, 1101 Taatog Circle, Suite 203, Silverdale, WA 98131-1101.

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## Sea junk raises questions



Skipper Brett Hearne fixes a net aboard the 75-foot F/V Last Straw on Wednesday afternoon. In the wake of the recent scut-tlebutt surrounding the U.S. Navy's desire to escalate training activities off the Oregon coast, Hearne - a commercial fisherman since 1978 - contacted the News-Times about a piece of Navy ordnance his crew netted along with 42,000 pounds of fish during a recent sea sojourn. He also pondered the viability of commercial fisheries, which face growing competition for ocean territory from the Navy's training range, marine reserves, wave energy projects, and more. (Photos by Terry Dillman)

## Navy's tactics worry fishermen

By Terry Dillman  
Of the News-Times

Brett Hearne has plied the ocean as a commercial fisherman since 1978, but he isn't sure how much longer he and fellow fishers can hold out.

The skipper of the F/V Last Straw is worried about what he thinks could become the last straw for commercial fishing as competing uses - current and future - jostle for ocean territory. And he wonders whether the \$1 million he invested in his 75-foot trawler last year can reap needed dividends, given current economic conditions and the possible loss of fishing grounds to proposed marine reserves, wave energy projects, fish farms, and more.

The latest salvo from the U.S. Navy, which wants to escalate activities within its Northwest Training Range Complex (NWTRC) off the coasts of Washington, Oregon, and northern California dredged up those worries, and prompted Hearne to call the News-Times about a piece of naval detritus his crew hauled in during a recent sojourn at sea. They're not exactly sure what the three-foot-plus, barnacle-encrusted aluminum canister is, but speculation based on serial, bar code, and other numbers from it range from a mortar casing to an aircraft cylinder used to launch missiles.

"We drag about 40 days out of the year," Hearne said. "And we haul in about three to four pieces like this per year."



Fisherman Joe Mayer inspects a U.S. Navy ordnance casing aboard the FV Last Straw on Wednesday afternoon. The 75-foot trawler's crew pulled up what Mayer's contact believes is an aluminum mortar casing.

Continued on Page A3



# UkiahDailyJournal.com

## Navy weapons program expanding on coast

By MONICA KRAUTH The Daily Journal

Updated: 02/18/2009 12:30:48 AM PST  
The U.S. Navy is about to get the go-ahead on expanding a weapons program known as the Northwest Training Range Complex. Affected areas will include Washington, Oregon and Northern California, including Mendocino County.

The program is proposed to expand ocean and land-based operations and will be conducting underwater demolitions, electronic communications and testing explosives and surveillance systems. According to the training range's Web site, www.nwtrangecomplexeis.com, the affected sites are "numerous individual training areas in the Pacific Northwest." The range complex extends westward in the Pacific Ocean (to 250 nautical miles beyond the coast of Washington, Oregon, and Northern California) and east to Idaho.

The training complex encompasses more than 126,000 square nautical miles of ocean area, and the range complex also includes more than 34,000 square nautical miles of airspace.

While the site uses extremely vague language to describe the specific weapons that the program intends to use, it attributes the reason behind putting the program in place to Title 10 U.S. Code Section 5062, which directs the chief of Naval Operations to maintain, train and equip all naval forces for combat "so that they are capable of winning wars, deterring aggression, and maintaining freedom of the seas."

Public safety issues, that the site lists, include:

"potential hazards inherent in flight activities, vessel movements, underwater detonations, offshore use of sonar, and onshore explosives training."

While the Navy held public meetings about the environmental impacts in various cities in Washington and Oregon, the only city in Northern California that had a public meeting was Eureka. The public, in those places, were concerned about effects on sediment quality, water quality; impacts to marine life and habitat that may be affected from sound, hazardous materials and pollution; noise from aircraft; underwater detonations; the disturbance of nesting or migratory waterfowl, shore birds, or other avian species; habitat fragmentation from land use; damage to cultural and historical resources, interference with tribal fishing and tribal ceremonial harvesting and potential impacts to commercial and recreational fishing.

Because there were no public hearings in Mendocino County, Redwood Valley resident Rosalind Peterson said she got on the phone Tuesday as soon as she found out and called friends, the media and her representatives.

"When I called Feinstein and Boxer's office, they didn't know what I was talking about," Peterson said. "When did we become the enemy and become test subjects for the Navy? ... That's what this is over our property, our land," she said.

The Navy is considering a few alternatives and a "No Action Alternative." Under Alternative 1, most baseline-training activities would be increased. Under Alternative 2, the "preferred alternative," there would be an increase of training activities, an accommodation of force structure changes, and the implementation of range enhancements.

The public comment period ends today, contact Naval Facilities Engineering Command Northwest

1101 Taulog Circle Ste. 203; Silverdale, WA 98315  
Attn: Kimberly Kler. For more information or to submit comments online, visit www.nwtrangecomplexeis.com.

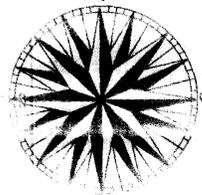
Monica Krauth can be reached at [udfeatures@pacfic.net](mailto:udfeatures@pacfic.net)

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# NEWS TIMES



Wednesday  
February 25, 2009  
18 Pages

Your information source for the Central Oregon Coast

four proposed by Supervisor Jim Juty's Eugene-based

part of the right-of-way.

Continued on Page A3

## p project stalled

orney John Junkin, on Feb. 12, which rground, Inc.'s application require- ctors and suppliers sure form. l, Inc. of Portland 13 bidders for the project with a bid l.12. Tapani Under- wers of the bidders e project is to con- ke pump station at tallation of about

8,100 feet of a 16-inch raw water trans- mission line.

"Tapani did not comply with the disclo- sure form, since although he provided a disclosure form, he did not disclose who his provider of concrete pipe would be," Junkin said.

In a Feb. 13 letter to Moore Excavation, Inc., informally denying the protest, City Manager David Hawker stated, "The city finds the Tapani Underground, Inc. bid is "responsive" in all material respects."

Continued on Page A3

## Quick action saves lives of 60-year-old man and dogs



Sawyer's Landing on Yaquina Bay Road, used a rental skiff to take him and his four dogs who had tried to swim across the bay into by Larry Conrod

id transported the dogs back to the emergency service to Samaritan Hospital, where he athermia. s he'd been in the minutes before be- BM2 Jason Mc- J.S. Coast Guard y. "If it wasn't for wyer's, Dion, he ne."

ing to get to Toledo for some food, McCommons said.

The dogs - a poodle, a lab mix, a husky mix and a shepherd mix - were taken to the Central Coast Humane Society and held until the next morning when their owner reclaimed them.

"They were very excited to see him," said Brandi Richmond of the Humane Society. "He was very worried about losing them."

Richmond said the dogs arrived at the shelter wet, but showing no signs of lingering trauma from their near fatal swim.

School District for the remainder of the current school year, and an \$18.7-million combined reduction in funding for the following two school years.

Superintendent Tom Rineason announced the grim results in a Feb. 23 news release, mired in the knowledge that numbers change daily in a quicksand economy that has swallowed so many businesses and the jobs that go with them whole. The numbers did not include any potential money from the fresh federal stimulus package, state education stability fund reserves, or the state's "rainy day" fund.

Continued on Page A5

## Citizens say Navy broke federal law

Grassroots effort aims to restart public comment process for draft EIS

By Terry Dillman  
Of the News-Times

A citizens group based in Tidewater and forged in the wake of wrath over inadequate public notification is urging Oregon's federal legislative delegation to scuttle a Feb. 26 public hearing in Tillamook, and launch a renewed public hearing process pertaining to the U.S. Navy's efforts to escalate training activities and enhance installations within the Northwest Training Range Complex (NWTRC) that extends 250 nautical miles from the shorelines of Oregon, Washington, and northern California.

Led by Tidewater resident and activist Charlotte Mills, Citizens Opposed to Weaponizing the Oregon Coast (COWC) - a self-described ad hoc group of attorneys, marine biologists, teachers, retirees, and other interested citizens - outlined its charges against the Navy, and actions they say would right the public process ship and set it back on course in a Feb. 22 letter to the Oregon congressional delegation. The group's primary focus is on determining whether or not Navy officials complied with National Environmental Policy Act (NEPA) requirements "to actually inform the Oregon public...in a timely way" about public hearings on a draft Environmental Impact Statement (EIS), in particular the Jan. 30 hearing at Hatfield Marine Science Center in Newport.

Continued on Page A3

## NAVY HEARINGS Continued from Page A1

"The Navy has categorically failed to comply," they concluded. Mills said they believe the Jan. 30 hearing (and all associated public comment submitted then and since) is invalid, because the Navy failed to comply with NEPA requirements for extensive public notification and involvement.

### Outreach falls short

Navy officials launched the public outreach effort in 2007, beginning with a notice of intent filed in the Federal Register, followed by a "scoping process" that featured five open houses and public hearings, including one in Oregon at the Spouting Horn Restaurant in Depoe Bay. The EIS executive summary states that Navy officials sent project information and related environmental documents to five public libraries in Washington, one in northern California, and one in Oregon - Driftwood Public Library in Lincoln City - to provide opportunities for public review prior to the Jan. 30 session at HMSC.

"That simply did not happen," said Mills, noting that the citizen group's investigation revealed that the EIS had remained boxed because it lacked a cover letter explaining its time-sensitive nature. As a result, Mills said it wasn't catalogued and shelved until Feb. 13 - 15 days after the Jan. 30 hearing and two days past the original Feb. 11 deadline for public comment.

The draft EIS "went public" at the end of December 2008, again with initial notice in the Federal Register, launching a 45-day public comment period. Five public hearings were scheduled - three in Washington, one in northern California, and the session at HMSC, all of them almost 30 days or more after the time began.

Sheila Murray, the Navy's environmental public affairs officer, said they advertised and sent out press releases prior to the Jan. 30 hearing at HMSC.

News-Times records show the Navy submitted an ad published five times prior to the hearing, but no press release. Other newspapers and most radio stations heard about the session after the fact.

Murray also provided a distribution list. It featured only those public officials, government agencies, Native American tribes and nations, organizations, and individuals who attended the 2007 public scoping meetings, provided comments during the scoping process, or were "identified by the Navy" for inclusion on the list. Oregon's Coastal Caucus legislators, the Lincoln County commissioners, Newport city officials, state agency leaders, and others say they only heard about the session through last minute, word-of-mouth contact.

Mills said the Navy presenters failed to reach "thousands of people along the coast," rendering the hearing and resulting public comment invalid.

### Comment extension

In the wake of growing complaints from all quarters, Navy officials throttled back on the

process, first adding an additional week to the public comment period, then extending by one month to March 11.

They also scheduled an additional public hearing in Tillamook, set for Thursday at the Tillamook County Fairgrounds Auditorium (4603 E. 3rd Street), with an open house at 5 p.m., followed by the hearing at 7 p.m.

But Mills and her cohorts said the Navy "has blundered again" by failing to notify "the two most relevant weekly newspapers nearest to the event" - the Headlight-Herald in Tillamook and the News-Guard in Lincoln City - until Feb. 20. At that time their weekly Wednesday editions went out. Readers of those papers won't read about the hearing until today (Wednesday), one day prior to the hearing, which Mills characterizes as failing to meet NEPA requirements "for timely public notice."

Other newspapers were notified in a more timely fashion, including the News-Times, which published a story about the hearing in the Feb. 20 edition.

### Potential protest

The citizens group recommended that the Navy cancel this hearing. If not, they intend to send a delegation "to protest the legality of the hearing."

They also want Navy officials to reschedule three public hearings in Oregon - in Tillamook, Newport, and Coos Bay - just as they did in Washington, especially since Oregon has "twice the Pacific coastline" and estimated "double the population" as Washington. They refer to the "hundreds of fishing, crabbing, and seafood enterprises, and coastal recreation economies" potentially impacted by the Navy's proposed activities and installations as justification for the request.

COWOC demanded "timely public notice" for all three scheduled hearings in all coastal newspapers, and placement of the draft EIS documents in the Tillamook, Newport, and Coos Bay public libraries. They want the Navy to hire independent scientists to revise and update the EIS "based on current science," rather than information they said is 20 to 30 years old.

Finally, they pointed out the state's authority - under the Ocean and Coastal Services Division, which administers the state's coastal management program - "to review federal programs and activities for consistency with Oregon's federally approved coastal program standards."

They said Navy officials want "a blank check to proceed with their plans to weaponize the Oregon coastal waters" and other range complexes, and are using terms of a December 2008 \$15-million legal settlement with the National Resource Defense Council (NRDC) as an excuse to follow a "combination of hurry-up hearings." Mills said NRDC officials told them "any such interpretation of the terms of that case is bogus."

Oregon's federal delegation agrees.

During a Feb. 10 briefing of

the legislators, Deputy Assistant Secretary of the Navy Donald Schregardus told them they could not push the public comment period to April 11 as requested because it would violate the legal settlement with the NRDC by pushing back the date for the final EIS. That settlement agreement sets a schedule of environmental compliance for the Navy's various training ranges, including the NWRRC. In it, the Navy "confirms its intent to adhere to its range-wide compliance schedule" and agrees to notify the NRDC and other environmental groups involved if the Navy can't meet the schedule.

If the Navy falls behind schedule, the delegation noted in a Feb. 13 letter to Secretary of the Navy Donald Winter. "Our offices have since discovered that the NRDC has itself asked the Navy for a significant extension of the comment period."

The settlement's intent is to require the Navy to comply with environmental laws, including environmental impact statements, for its training

ranges, and adopt effective mitigation measures. "Meaningful public comment is clearly part of this process, and to say that extending the comment period would violate this settlement is disingenuous at best," the federal legislators noted.

"This attempt by the Navy to commandeer authority over our coastlands and ocean waters historically managed by the state of Oregon is unprecedented and without merit," Mills said, noting that the group's research indicates the Navy has "a pattern of inadequate and often invalid notification," which goes against the grain of Oregon's long-standing tradition of citizen participation and "well-earned reputation" for coastal and ocean stewardship.

For more information about the Navy's proposal, go to [www.NWRRangeComplex-EIS.com](http://www.NWRRangeComplex-EIS.com).

Terry Dillman is the assistant editor of the News-Times. Contact him at 265-8571, ext 225, or [terrydillman@newportnews-times.com](mailto:terrydillman@newportnews-times.com).



## Citizens Opposed to Weaponizing Oregon Coast\*

480 E. Buck Creek Rd.  
Tidewater, Oregon 97390

\*Regarding U.S. Navy's Plan to Deploy  
Mines, Explosives, and Target Devices  
Along Oregon Coastline



Tillamook Headlight-Herald

RE - Navy 12/26 Hearing

March 2, 2009

P.O. Box 444

Hope you can use as is or edit

Tillamook OR 97141 / (503) 842-7535

Dear Editor:

Regarding the U.S. Navy's two recent public hearings to notify Oregon citizens about plans to extend their weapons program along our Northwest coastline, the Navy seriously failed to comply with federally-mandated public notification requirements. Consequently, our Oregon group has reported to our Congressional delegation why both public hearings were illegal and invalid.

Thanks to the Headlight-Herald's Feb. 25 edition, the Navy managed to muster a concerned but small group of local citizens to attend a second Oregon public hearing at the Fairgrounds on the evening of the 26th.

Several equally concerned Lincoln County citizens traveled on the 26th to see and hear if the Navy could provide anymore critical information at the hastily-scheduled second hearing than was provided at the first held in Newport on Jan. 30.

The Navy and all federal agencies are required by the National Environmental Policy ACT (NEPA) to provide "early notification" to the public on any project that has "potential environmental effects." That means providing the public "early notification" through community media about scheduled hearings and providing a copy of the Environmental Impact Statement (EIS) to a designated library for the public to examine in order to be as informed as possible about the federal agency's plans.

The Navy failed in both public events to provide timely notification or available copies of the EIS for public review. This EIS is in two volumes with over 1000 pages.

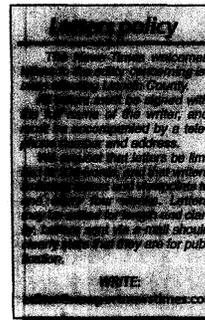
No print media in Lincoln County was notified about the Jan. 30 hearing in Newport. One Navy document dated December 2008 stated the Lincoln City News-Guard was notified. After inquiries, the News-Guard reported they went online Feb. 4, six days after the 30th hearing, finding out on their own about the hearing unnotified to them. On a call to the Lincoln City Driftwood Library, staff reported on Feb. 9 they found the EIS still in a box with no explanation of purpose or that it was time-related. So 12 days after the Jan. 30 meeting, it was cataloged and shelved.

Because the Navy public affairs officers evidently don't have basic knowledge about weekly, bi-weekly and daily newspaper publication deadlines, notification of the Tillamook Feb. 26 meeting arrived too late for the Herald's 18th Wednesday edition. So citizens had one day's notice about the 26th meeting which appeared as soon as it could be provided in the Herald's 25th edition. Hardly an "early notification."

And, unbelievably, the Navy sent the required EIS document for public review to Tillamook County Library's address but directed it to Newport Public Library. So your librarian properly and dutifully packed and sent the EIS days before the 26th meeting to the Newport Library which now has two copies and Tillamook no copies.

(Continued)

## LETTERS TO THE EDITOR



### Grade school class learning about U.S.

The Fourth Grade at Aviston Elementary, located in southern Illinois, is learning about the United States and the different environments, climates, resources, and highlights found in each region. The students in the class think it would be fun to receive post-cards, souvenirs, resources, or any information about our great country from each of the 50 states.

We hope that people who read this letter will be interested in mailing our class items pertaining to their state.

Our address is: 4th Grade @ Aviston Elementary, 350 South Hull St., Aviston, IL 62216.

A sincere "thank you" to anyone who is able to contribute. We appreciate the excitement you will add to our learning experience.

Mrs. Niemeyer  
and the 4th Grade class  
Aviston Elementary, Aviston, Ill.

### Where is the justice?

My friend was assaulted in his home last week. He was alone and had just fallen asleep. Two men let themselves in and

proceeded to knock out four of his teeth, blackened his eye and opened a cut that required stitches next to his eyebrow.

When they were done with him, they moved on to his 30-year collection of antique bottles and reduced it to shards. When they left, and he was able, my friend called 9-1-1. He was then treated to a considerable wait. When two deputies finally showed up, my friend was told that because there were two assailants, they would be witnesses for each other and would say that he (my friend) started it. The deputies weren't interested in pursuing those cowards at all.

Did I miss something here? Since when does law enforcement condone home invasion, assault and battery with intent and destruction of personal property on the grounds that these marauding miscreants would lie for each other? Just for the sake of clarity, let's do a little comparison shopping: If I was home alone and in bed one night, and I had on a pair of slinky PJs, and the aforementioned miscreants picked my house to do a little breaking and entering, and saw my slinky PJs and decided to rape me instead ... did I start it? Ahhh, the good old days when the victims were on trial instead of the criminals. God, give me strength.

Sharlene Bliss  
Toledo

### Eddyville parent dislikes coverage

As the mother of one of the two seniors that are on the Eddyville team, I feel compelled to let you know what a low opinion I have of a recent article covering the Eddyville-Siletz basketball game.

Reporters that give bias reports are not, in my opinion, very good reporters. If a game gets reported on it should at least afford some dignity to both sides. Eddyville is not a highly skilled team, we all

know that, but I would like to tell all the young men that play on our Eddyville basketball team how proud our community is of them. These boys have lost game after game for the last few years, and they still go and play with their hearts full of love for the game.

You may not be able to report how exceptionally good one of the Eddyville team players is, but you sure the heck could give them some credit for their exceptionally good sportsmanship and how good it is to see a team that plays with their hearts down to the last seconds of a game, even when they know its hopeless to ~~outscore the other team.~~ They go at it with the attitude that it's not hopeless to have fun and play the game.

The last quarter of this game was very fun to watch. Siletz may have took out their "big guns," but Eddyville put in three players that just started on the team this year. The two experienced players made sure that these boys got passed the ball, got to run some plays and actually make some points. It was heartwarming to see these young, inexperienced players getting to play with such enthusiasm for the game. It doesn't matter what the score is at the end of the game, our Eddyville basketball players win every time.

Joan Weaver  
Blodgett

### Navy needs open, transparent process

On Friday evening, Jan. 30, a public hearing was held at the Hatfield Marine Science Center to garner public comment on the U. S. Navy's expanded use of the Northwest Training Range Complex off the Oregon coast, and specifically on its draft Environmental Impact Statement/Overseas Environmental impact statement (EIS/OEIS).

Unfortunately, limited public-

ity about the meeting resulted in relatively light attendance, and many in attendance indicated that they had just learned of the meeting, the only one to be held in Oregon, and the 1,000+ page EIS/OEIS document. Written comments are due by Feb. 11.

Among the proposed activities are increased use of sonar, surface and air "target services," and an underwater mine field. There will also be increased air and surface traffic by the Navy. Although the Navy dismisses as minimal or non-existent the impact on the natural environment, I believe its research supporting such assertions warrants considerably more review than it has received.

I am not an expert in such matters, but I am concerned that such increased use by the Navy may also affect research that is underway or proposed affecting marine mammals, our fisheries, and the development of alternative energy sources. In addition, as whale watching, the enjoyment of the ocean environment and sport fishing are a key part of coastal tourism, the impact of the proposed actions on tourism is also potentially significant. The commercial fishing industry has already suffered serious blows, any further impact on that struggling part of our economy deserves more careful consideration as well.

I have contacted our Congressman and Senators to request additional hearings in Oregon and an extension of at least 30 days of the deadline for public comment.

The Obama Administration has pledged itself to a new era of openness and transparency in government, and I have been pleased to note that many of its first actions were important steps to implement this pledge. I would hope that we could do better than this with regard to the Navy's proposed action off the Oregon coast.

Richard Cameron  
Depoe Bay

Things left unsaid at the Fairgrounds because of the short comment period: 1) Thanks go to your Representative Kurt Schrader for leading the effort by our congressional delegation to contact the Sec. of Navy and request a second public hearing; 2) Tributes to the thoughtful and courageous comments made by locals who spoke of their concerns and reservations; and 3) Admonitions to the Navy for providing only an informational tip-of-the-iceberg about their warfare training plans (including dummy minefields and underwater demolitions) in a five-minute video, wordy posters and a six-slide presentation.

Our group is asking our congressional delegation to: 1) Notify the Sec. of Navy that the Navy has failed to comply with NEPA public hearing requirements in Newport and Tillamook making both illegal and invalid; 2) Require Navy to reschedule three Oregon public hearings (as the three held in WA) with timely public notice sent to Oregon's 16 coastal newspapers and to provide EIS copies at hearing sites; and 3) Order the Navy to hire independent marine scientists to correct and revise the EIS with current scientific references by updating the 20 to 30 year-old citations, especially about the use and consequences of deploying depleted uranium and other toxic materials during their planned activities.

Respectfully submitted,

*Charlotte Mills*  
Charlotte Mills

Member of Citizens Group Opposed to Weaponizing the Oregon Coast  
(541) 328-7309 / FAX - Same

Letters policy

The News-Times welcomes letters to the editor concerning issues affecting Lincoln County. All letters must be signed with the full name of the writer, and must be accompanied by a telephone number and address. We request that letters be limited to 300 words, and that writers limit their letters and viewpoints to one every four weeks. Letters may be edited for length and clarity. Letters sent via e-mail should clearly state that they are for publication.

WRITE

editor@newspawstimes.com

Navy failed to notify the public

To set the record straight about the U.S. Navy's requirement to notify the public of public hearings in compliance with the National Environmental Policy Act (NEPA) regarding their open house and public hearing at Hatfield Marine Science Center on Jan. 30; no Oregon print media and no Oregon citizens were notified.

Although the Navy public affairs agents reported in their executive summary (dated December 2008) that the Lincoln City News-Guard was notified and that the two-volume copy of the Environmental Impact Statement (EIS) was placed in the Lincoln City Driftwood Library, the News-Guard only received notification Feb. 3 after the Jan. 30 hearing and after receiving questions from citizens and finding a notice online.

Meanwhile, interested citizens contacted Driftwood Library staff, who searched for the two-volume EIS the Navy said was provided. As of Feb. 9, staff reported it remained in a box with no cover letter explaining its time-related purpose. It was later cataloged and shelved that day.

Question: Why did the Navy schedule three public hearings in Washington and only one in Oregon when Oregon's Pacific coastline is almost twice as long as Washington's? Why did the Navy claim it notified five Washington

newspapers and only listed one in Oregon when our state has 15 coastal newspapers?

In other words, the Navy failed to notify anyone in the state of Oregon before their Jan. 30 public hearing violating the NEPA requirement that it do so. This information has been relayed to the Oregon Congressional Delegation, who are requesting the Secretary of the Navy to extend the public comment period until April 11 and to schedule two properly notified public hearings so the fishing, crabbing and seafood communities and interested citizens have a chance to tell the Navy their concerns about their planned installations.

How can the public trust the Navy to perform its stated EIS safety provisions if it can't adequately notify the public of a public hearing?

Charlotte Mills  
Tidewater

Democrats' programs lacking

I am watching the Democrats' President Obama and the Democrats' shamless bill and crying when I see the market drop.

It reminds me of what I was told about Franklin Roosevelt and his raw deal, oops, new deal. However, being truthful, I am getting Social Security disability - the only somewhat worthwhile thing to come from any Democrat politician.

Tom Kihs  
Newport

It isn't about 'only two disgruntled tribal members'

Lisa Brown scored a sensational victory in the Siletz tribal election with 401 votes. When Chairman Dee Pigsley was elected in 2007, she cited her own 405 votes as proof of overwhelming support. But in her letter to the News-Times last week, she dismissed Lisa Brown as one of "only two disgruntled tribal members." I am the other candidate Chairman

Pigsley was referring to. She objected to coverage of our criticism of tribal officials during the campaign. As usual, Chairman Pigsley fails to contest the substance of the charges documented on Siletz.Net - she simply proclaims that these are matters that should not be reported.

She has good reason to be worried. This isn't about "only two disgruntled tribal members" any more - this time we brought a lot of voters. I campaigned hard for Lisa Brown and for Reggie Butler, who also won this year. They both immediately moved to replace Dee Pigsley as tribal chairman, something Pigsley conveniently forgot to mention when she claimed that even this election demonstrated strong tribal support for the status quo.

Tribal voters across the country were mailed the statements of every other candidate, but mine was excluded with no explanation given in the voters pamphlet. My message got out despite this major handicap, and I finished positioned as the top contender going forward.

The magnitude of Lisa Brown's stunning victory this year marks a decisive turning point for our tribe. We require the transparency in our government and our businesses that will give tribal members meaningful oversight, so that the wisdom of our whole tribe can be brought to bear on the challenges we face. I have no doubt that Lisa Brown will take the first strong steps to deliver that result.

Lynette Warren  
Wellington, Nev.

Slow down for kids and pets

I want to tell you a story about my daughter's best friend for the last 12 years. They would play together, go for walks together. He was a big part of our family. His name is Hunter, and he was our family pet, a fluffy orange cat who loved to lay in the sun on the

driveway and play in the tree by the pond waiting for the birds to land to take a bath.

He was a great cat. At about 6 p.m. on Feb. 10, on NE 11th and Eads, someone driving way too fast killed him. That feeling of my neighbor at my door telling me my cat was dead and looking out to the road and seeing him was wrong. And the feeling of having to tell your child their best friend was killed because someone was careless and reckless in a neighborhood with school kids playing and pets outside was wrong.

Please slow down for the sake of the kids and pets; remember it's 20 - 25 mph.

Michelle Elmore  
Newport

Store closures are personal

The Dollar Store in Lincoln City has closed. Dollar Bonanza has been an active part of the community for more than five years.

Mark and Linda McIntosh have, quite literally, put their lives on the line to provide family wage jobs to the community in their quest to provide a discount retail opportunity for all of us.

There are many factors that led to the closing. The poor economy and the constant increases in expenses are certainly major factors. Whatever the reasons, there are lots of local businesses that will be unable to adapt to the new and unprecedented realities of the new world.

Please don't forget the personal side. The McIntoshes put all that they had into their business, and, until the end, they retained their focus on their customers and their employees.

Thank you, Mark and Linda. I did not forget the personal side of our relationship. You will have some personal losses, but you retained your integrity. You are good people. Lead On.

John Wilent  
Manager of Dollar Bonanza  
Lincoln City

Letters

Longer letters will be edited for length or returned to the submitter for cutting. Writers who do not wish their letters to be published if edited should indicate that, and their wishes will be respected.

Deadline

Letters are due in by 5 p.m. Friday to be considered for publication the following week. Those interested in submitting a guest column should contact the editor directly at info@thenewsguard.com.

Send submissions

Submissions should be e-mailed to the editor or can be mailed to the editor at:  
The News Guard  
930 S.E. Highway 101  
Lincoln City, OR 97367

No material that includes irresponsible or unverifiable characterizations or charges against any individuals or organizations will be published. By submitting a letter or comment, writers also grant permission for the letter to be posted on The News Guard's Web site.

fun, scheduled for Saturday, May 16, in Lincoln City.

Lincoln City Community Chorus meets Tuesdays at 7 p.m. in the Lincoln City Chapel by the Sea Presbyterian Church at 2125 S.E. Lee, and all interested are encouraged to attend. Please call Nancy McCall, Publicity, 996-7328 (work) or Carol Rohlfing, President, 994-8531 (home) for information or assistance with ride sharing.

Director of the Lincoln City Chorus is Dr. Robert Herman, composer and director of Requiem 911, which premiered in Lincoln City on Sept. 11, 2008, and was a commanding success.

Dr. Herman, inveterate punster, enjoys a lifelong love of music performance and endeavors to make singing a fun experience for all participants; yet he is uniquely qualified to lead the community chorus. Dr. Herman is retired from a long career in music. As composer and arranger, tenor soloist, musical educator, and choral director, Herman brings to the chorus technical expertise rarely found outside urban areas—and an insider's view of the music world. Choral practices include original choral arrangements of songs not available to choruses elsewhere in the world. Herman also generously sprinkles each evening with humorous anecdotes and puns, which arise from his own nat-

Please come on Tuesday night and bring your friends!

Nancy McCall  
Lincoln City Community Chorus

Spend wisely

Two weeks ago The News Guard ran a story about how the public schools in Lincoln City may have to close early if they don't get a piece of the stimulus pie. At first I didn't think anything of it. That was until I drove my daughter to school at SDA and was reminded of the current project at Oceanlake to change their southeast parking lot into a drive-through for dropping off and picking up kids. If the schools are in such a dire need for cash, why are they spending money on a parking lot project that is going to cause more harm than good? What committee decided it was more important to make a new driveway into the school than keep the kids there for a full school year? How much are they spending to reroute all their traffic anyway?

Furthermore, I'd like to thank the Oceanlake school for not bothering to even consider what their new driveway will do for the students going to the SDA school. Their new driveway is practically in the SDA's front door and only feet away from our school's crosswalk. The area is already congested enough as we parents try to jockey for a place to park long enough to drop off or pick up

should be even more congested all that additional traffic starts to use that road. Again, I just have to wonder who at the Lincoln County public schools was thinking when they thought this new driveway into the Oceanlake school was a good idea and worth spending the money on.

Kelly Morris  
Lincoln City

Town was full

Well, the weekend of Feb. 21, Lincoln City seemed to be full of life. I wish the City and the VCB would take a look at what brought visitors in. It was the casino and the Newport Seafood and Wine Festival. I really feel the VCB needs to work on having some brew fest or seafood festivals — anything to help the economy, especially in these hard times. People always seem to go towards food and alcohol.

Gene Scrutton  
Al Beach Rentals

More water issues

I love Devils Lake. I want to keep it clean and beautiful. However, I was alarmed when I read the recent article regarding Devils Lake. The City continues using the heavy-handed methods plied against Roads End, again using water as leverage.

I was appalled at the Lincoln City Manager's comments stating the City: "could refuse to issue any new hookup to properties ... unless they are connected to a sewer," and "we take it very seriously." No idle threat as witnessed by the Roads End fiasco. Blackmail and extortion have become the City's MO.

The City is using the threat of no water to bully its citizens. There is no sewer on the east side of the lake, and that area is under County jurisdiction. If I owned land near the lake, I would be fearful that our City may deny my right to build, rendering my land worthless. The DLWID supports a Septic Inspection Program.

"The only concern is how to do it." Who naves for it? Our City

of the City to its resident. Clean up the Lake and the City's act at the same time.

Aaron Smith  
Lincoln City

Navy response

Re: U.S. Navy Environmental Impact Statement. The U.S. Navy, caught in a big fat lie recently by Oregon's congressional delegation, met half the delegation's demands with one additional public meeting instead of two and a 30-day extension for comments instead of 60. Thus has civilian control of the military deteriorated from polite fiction to cruel joke, wherein Congress condones outright lies as merely "disingenuous" and halts the Navy's insulting collusion as a congressional success.

Civilian control of the military, however, is not a negotiable commodity, and lies designed to evade civilian control are fatal to any notion of democracy. The lies in the Navy EIS, moreover, are also potentially fatal to Oregon's fishing, tourism, shipping, travel, real estate and other industries along our entire coastline, to say nothing of environmental health.

The Navy intends to increase training and testing activities off the Oregon coast — without anywhere identifying those activities, or where or when they occurred or what damage has already accrued. This vast omission, particularly given the Navy's admitted current and past use of depleted uranium materials here, puts the lie to EIS claims of no significant impact.

While Oregon's economy collapses, the Navy spends recklessly on war games that further jeopardize coastal resources. If ever there were a time to assert civilian control of the military, it is now. At the very least, Congress should force the Navy to withdraw its EIS and halt all northwest activities until those activities and their true costs and effects are honestly identified.

Carol Van Strum  
Tidewater

# OPINION

## LETTERS TO THE EDITOR

News-Times, Newport, OR, Wednesday, March 4, 2009

### Letters policy

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WRITE:

editor@newportnewstimes.com

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Carol Van Strum  
Tidewater

### Navy must be more forthcoming

The U.S. Navy, caught in a big fat lie recently by Oregon's congressional delegation, met half the delegation's demands with one additional public meeting instead of two, and a 30-day extension for comments instead of 60. Thus has civilian control of the military deteriorated from polite fiction to cruel joke, wherein Congress condones outright lies as "disingenuous" and hails the Navy's insulting concession as a congressional success.

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The Navy intends to increase training and testing activities off the Oregon coast - without any-

### What a dump!

Rain, wind, sneaker waves, traffic, a downtown that seems to have been abandoned, high prices, and high unemployment are all a part of living on the coast. It is a high-risk environment for those with high hopes. On the bright side, a ray of sunshine is our dump. As dumps go, ours must rank up there with the very best in terms of cleanliness and ease of use. It was not always so, but now it is a marvel. Even the seagulls seem to have come to realize that life is better at the beach now that our dump has gotten its act together.

And kudos to the recycling program. Batteries accepted when the bunny dies. Last week the pile of neatly stacked and shrink-wrapped 28" televisions spoke volumes about the changing technology and the incursion of the flat screen. There were piles of neatly shrink-wrapped computer

no... still work great, but that is another testament. Let's hope that those heavy metals go to the heavy metal hunting grounds and that all those plastic bags and empty Rogue bottles get to live again, incarnated into someone's deck or another Dead Guy.

With the tsunami of the economy, with the Wall Street sneaker wave, with most of us being driven to the brink, it is refreshing to walk our clean beach. Most of the litter we find there seems to be plastic that has come from afar. And it is refreshing to be able to admire the efforts of our community to recycle and the pride that is obviously taken by the folks at the transfer stations. Newport is not a dump, it is our wonderful front yard, and, I for one, am glad to have such a great dump at my disposal.

John Burton  
South Beach

### It's about compassion for animals

Ms. Trudeau, you stated in your letter ("Animal lover angry over want ad," Feb. 20 edition) that you "don't know anyone outside of drug-raged people without their right mind who would even think about doing this job." Well, I am certainly outside of that description. I am a long-time county resident who owns and my own business. I serve on the Toledo Chamber Board of Directors and on the Toledo City Council, among other things. I think I am mostly in my right mind, and I have submitted an application for this very position - for many reasons.

The part time position calls for the care and feeding of the animals housed at the animal

office work. The animal shelter is small enough that I can't imagine there could be the specialization in positions that you allude to. The person who takes this job will have to wear many hats, as I suspect most of the people who work there do.

While I don't like the thought of losing any of my beloved animals either, I have lost plenty of them in the course of my life. It's just part of the deal when you have animals and our life spans are so much longer than theirs. And some of them even had to be euthanized due to complications from old age. It's all about compassion for the animals.

Why would anyone not give the animals the respect they deserve by keeping them healthy, clean, sanitary as possible, fed and loved? It is not their fault that people allow them to breed willy-nilly when it is so simple and not terribly expensive to have them spayed or neutered.

Why spend the money and effort to keep these animals healthy? Well, honestly, who wants to adopt a sick animal? I don't think the shelter's policy is to just "put them down anyway" unless they are sick beyond hope or have proven to be unadoptable.

I am highly aware that this would be a very difficult job for anyone to do - certainly for myself, being the compassionate lover of animals that I've always been. But ultimately, the job is all about that very thing - compassion.

You said, "How sad our society has become." I agree. Please have your pet spayed or neutered now. Don't add to this already huge problem.

Nancy Lynne  
Toledo

FAX - (360) 390-7127 - ATTN: Kimberly Kier - NWTRC - April 10, 2009 -



### Citizens Opposed to Weaponizing Oregon Coast

480 E. Buck Creek Rd.  
Tidewater, Oregon 97390

\*Regarding U.S. Navy's Plan to Deploy Mines, Explosives, and Target Devices Along Oregon Coastline



ATTN: Kimberly Kier  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale WA 98315-1101

April 10, 2009

TO: Kimberly Kier:

Please find faxed here April 10 my public comment addressing the NW Complex proposals being considered for evaluation and adoption during this year of 2009.

Members of Citizens Opposed to Weaponizing Oregon Coast stipulate to the Navy that the 2009 Public Hearing Process failed to comply with NEPA requirements. Attached papers of our detailed research demonstrate the Navy failed: 1) To notify the coastal community newspapers and the public with "early notification" of the January and February public hearings; and 2) To adequately provide copies of the December 2008, two-volume EIS to the original seven library repositories and the two extra repositories at Tillamook County Library and the Eureka Humbolt County Library.

Therefore, our group further stipulates that because the Navy failed to comply with the above NEPA requirements, that the 2009 Public Hearing Procedures are invalid and illegal.

Our group recommends that the Navy confer with Secretary of Navy Donald Winter and NOAA Director Jane Luncheon to:

- \* Reschedule the Public Hearing process after engaging competent contractors to notify the news media and deliver a revised EIS to repositories in a timely way.
- \* Recruit independent marine scientists to evaluate the merit of the current EIS.
- \* Hire independent marine scientists to revise, correct and update the old and faulty research in the current EIS.
- \* Then, and only then, start the Public Hearing process over again.

Shockingly low attendance at both the 2007 Scoping Meetings (total of 84) and at the 2009 Public Hearings (total of 103) demonstrated how poorly the public received "early notification" and how unavailable copies of the December 2008 EIS Draft were for the public to examine. At four out of the five 2007 and 2009 events, the Navy's 19 panelists and presenters outnumbered the citizens who attended.

Other members of our group are providing public comment addressing technical topics on sonar, chemical toxins, baseline activities and the economic consequences that would result from the current activities proposed.

The one and only subject of this public comment is the Legality of the Northwest Complex's Procedures. In the attached pages the facts address these issues: 1) The news media located in the coastal communities most impacted by the Navy's plans were not legally notified; and 2) The contracted KATZ P. R. firm failed to deliver some copies of the EIS to repositories, delivered the 2007 one-volume EIS to two repositories and mixed up delivery between two repositories.

The result was that the NEPA requirements for the Navy to provide a "detailed public (EIS) document" to repositories and to provide the public with "early notification" of public meetings - failed.

For these reason, our group makes the stipulation that the 2009 Public Hearing Procedures are invalid and illegal.

Our group's stipulations and concerns are being sent to our Oregon Congressional Delegations this week.

Respectfully submitted,

*Charlotte Mills*  
Charlotte Mills  
(541) 528-7309



Training Range Complex Environmental Impact Statement/  
Overseas Environmental Impact Statement (EIS/OEIS)

NEPA Process and Community Involvement

Why is the Navy preparing an EIS/OEIS?

The Navy has prepared the Draft EIS/OEIS to assess the potential effects on the environment from the Navy's current, ongoing and potential activities as it plans for the future.

The National Environmental Policy Act (NEPA) of 1969 requires federal agencies to examine the environmental effects of their activities. An Environmental Impact Statement (EIS) is a detailed public document that provides an assessment of the potential effects a federal action might have on the human, natural or cultural environment. An Overseas Environmental Impact Statement (OEIS) has been prepared to comply with Executive Order 12114, Environmental Effects Abroad of Major Federal Actions (1979). This order requires federal agencies to consider the effects of actions on the environment outside U.S. territorial waters.

**THE NAVY  
WANTS  
YOUR  
INPUT!**

How can the community be involved?

**OPEN HOUSES AND PUBLIC HEARINGS**

The Navy is holding five open houses and public hearings in three states to inform the public about the Proposed Action and to receive public comments on the environmental analysis contained in the Draft EIS/OEIS. During the open house sessions, informational poster stations and Navy project team representatives will be available to provide the public with an opportunity to learn more about the NEPA process, the Proposed Action and alternatives, and the results of the environmental analysis.



The Navy Wants to Hear from You!

Submit oral and/or written comments at the public hearing or by mail.

Visit the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) to submit written comments online.

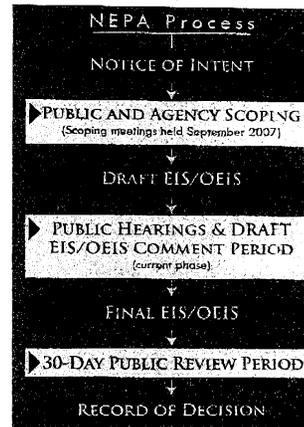
All comments received by **February 11, 2009**, will be considered and responded to in the Final EIS/OEIS.

Where can I find more information?

The Navy has established a Web site that makes it easy to find project documents and additional information. The Web site also provides background information on environmental topics referenced in project documents.

Project information and environmental documents may also be viewed at the following information locations.

For more information about the Northwest Training Range Complex EIS/OEIS, visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com).



Steps of the NEPA process. Boxes with arrows indicate opportunities for the public and interested stakeholders to provide input.

INFORMATION REPOSITORIES:

Oak Harbor Public Library 1000 SE Regatta Drive Oak Harbor, WA	Timberland Regional Library 420 7th Street Hoquiam, W.
Port Townsend Public Library 1220 Lawrence Street Port Townsend, WA	Lincoln City Public Library 801 SW Highway 101 Lincoln City, OR
Jefferson County Rural Library 620 Cedar Avenue Port Hadlock, WA	Humboldt County Library 1313 3rd Street Eureka, CA
Kitsap Regional Library 1301 Sylvan Way Bremerton, WA	

Sec. 102 [42 USC § 4332]. NATIONAL ENVIRONMENTAL POLICY ACT - NEPA

The Congress authorizes and directs that, to the fullest extent possible: (1) the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this Act, and (2) all agencies of the Federal Government shall --

(A) utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man's environment;

(B) identify and develop methods and procedures, in consultation with the Council on Environmental Quality established by title II of this Act, which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations;

(C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on --

- (i) the environmental impact of the proposed action, NEPA Requirement -  
Environmental Impact Statement
- (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,
- (iii) alternatives to the proposed action,
- (iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and
- (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

Prior to making any detailed statement, the responsible Federal official shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Copies of such statement and the comments and views of the appropriate Federal, State, and local agencies, which are authorized to develop and enforce environmental standards, shall be made available to the President, the Council on Environmental Quality and to the public as provided by section 552 of title 5, United States Code, and shall accompany the proposal through the existing agency review processes;

(D) Any detailed statement required under subparagraph (C) after January 1, 1970, for any major Federal action funded under a program of grants to States shall not be deemed to be legally insufficient solely by reason of having been prepared by a State

agency or official, if:

- (i) the State agency or official has statewide jurisdiction and has the responsibility for such action,
- (ii) the responsible Federal official furnishes guidance and participates in such preparation,
- (iii) the responsible Federal official independently evaluates such statement prior to its approval and adoption, and
- (iv) after January 1, 1976, the responsible Federal official provides early notification to, and solicits the views of, any other State or any Federal land management entity of any action or any alternative thereto which may have significant impacts upon such State or affected Federal land management entity and, if there is any disagreement on such impacts, prepares a written assessment of such impacts and views for incorporation into such detailed statement. NEPA Requirement -  
"Early notification"

The procedures in this subparagraph shall not relieve the Federal official of his responsibilities for the scope, objectivity, and content of the entire statement or of any other responsibility under this Act; and further, this subparagraph does not affect the legal sufficiency of statements prepared by State agencies with less than statewide jurisdiction.

- (E) study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources;
- (F) recognize the worldwide and long-range character of environmental problems and, where consistent with the foreign policy of the United States, lend appropriate support to initiatives, resolutions, and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of mankind's world environment;
- (G) make available to States, counties, municipalities, institutions, and individuals, advice and information useful in restoring, maintaining, and enhancing the quality of the environment;
- (H) initiate and utilize ecological information in the planning and development of resource-oriented projects; and
- (I) assist the Council on Environmental Quality established by title II of this Act.

Community newspapers that were and were not notified in Washington, Oregon and California about the original five Public Hearings scheduled by the Northwest Training Complex in those three states. Also report on how Navy provided "early notification" to newspapers where extra hearings took place in Tillamook, Oregon on February 26 and Ukiah, California on March 31.

Oregon newspapers that Navy's December 2008 Executive Summary announced would be provided news release on the January 30 public hearing scheduled in Newport at the Hatfield Marine Science Center.

Lincoln City News-Guard - Editor Allyson Longueira replied on Feb. 2 that the News-Guard never received a news release. Their sister paper in Tillamook (Headlight-Herald) saw a story in a Washington paper and notified the News-Guard. Editor researched story and ran story about the Newport hearing on Feb. 11 - 12 days after the Jan. 30 public hearing.

Our group contacted Public Affairs Officer Shelia Murray at Silverdale WA headquarters week of Feb. 9 to discuss why Oregon's 16 coastal newspapers had not received news releases about the January 30 Newport hearing when the Navy's NW Complex Training Map indicated that all 362 miles of Oregon's coastline would be impacted. Murray request we provide her names and location of those papers. List was sent immediately.

Meanwhile, a second public hearing was scheduled for Tillamook for Feb. 26 after citizens appealed to Oregon congressional contacts when only 15 citizens stayed for the public hearing held in Newport because no media had been provided a news release and those attending reported they'd heard of the hearing by-word-of-mouth only overnight or a few hours before the hearing. Congressman Kurt Schrader arranged for the hearing to take place at the Tillamook County Fairgrounds on Feb. 26.

Oregon coastal papers that were and not notified about the Feb. 26 public hearing in Tillamook. Our group advised Murray all 16 should be contacted in case citizens from the seven coastal counties who might have fishing, crabbing, sea urchin or tourism businesses might want to attend. It has not been determined if the Silverdale Public Affairs office or the P.R. firm KATZ took charge of sending news releases for this Tillamook hearing.

Astoria Daily Astorian - Notice arrived Feb. 24. Public got a two day notice. It ran on Feb. 24 being a daily but appeared on Page 3 too late for front page story.

Bandon Western World - Said no ad or news story was submitted.

Brookings Curry Coastal Pilot - Editor received an earlier story from their Washington D.C. news service - WestCom - which ran Feb. 18. But it covered the March 11 extension story. No notice or ad was provided on Feb. 26 hearing.

Coos Bay World - Editor said notice arrived too late for their weekly Feb. 18 deadline. So notice ran Feb. 25. One day before public hearing.

Coquille Sentinel - This Coquille paper is located 20 miles from coast but has a circulation and readership in that coastal area. No ad or notice was received.

Florence Siuslaw News - Found copy of news release but it arrived on week of Feb. 23. Could have been run on Wednesday's Feb. 25th edition. But editor decided it was too late to notify public for the Feb. 26 hearing.

Gold Beach Curry County Reporter - Did receive a notice too late for their weekly edition on Feb. 18. Did publish story on Feb. 25. One day prior to Feb. 26 hearing.

Lincoln City News-Guard - Did receive notice too late for their Wednesday Feb. 18 edition. Did publish story of Feb. 25. One day before the Feb. 26 hearing.

Newport News-Times - Did receive notice in time for their Friday edition Feb. 18. So readers could have read of hearing six days before 26th hearing.

Important Note - On inquiry about News-Times being sent a news release about the Jan. 30 public hearing in Newport at Hatfield Center, Navy contact Joe Overton sent through Port Townsend & Jefferson County Leader message that a news release was sent to the News-Times addressed to Lee Breedlove who is a press operator, not associated or located in the news department. News department said no news release was received.

Port Orford News - Editor reports receiving no ad or notice. Said there is significant fishing, crabbing, seafood harvest both commercial and recreational in area. Regrets no story was provided because of potential interest.

Reedsport Umpqua Post - Tried three times to contact this paper. Was unable to have phone service at office to ever respond.

Regue River Press - Editor reports no ad or notice was received.

Seaside Signal - Staff reported an ad was received Feb. 20 placed by P.R. firm KATZ. Ad ran on Feb. 25. one day before Feb. 26th hearing. Editor didn't indicate a story was received or run.

Tillamook Headlight-Herald - Received notice too late for their Feb. 18th weekly edition. So editor ran story Feb. 25, one day before the Feb. 26 hearing. Our contact could find no ad was sent or published.

Warrancon Columbia Press - Located only 60 miles from Tillamook. But editor reports no ad or notice was received.

South Lincoln County News - Received notice too late for the Feb. 18th edition. Ran ad and notice in their Feb. 25 edition. One day before the 26 hearing.

Score: Seven papers received no notice. Six weekly papers ran story Feb. 25, one day before Feb. 26 hearing because notice arrived too late for earlier weekly publication deadlines. Newport paper ran Feb. 20, six days before hearing. Florence paper received later notice and decided not to run a story. No response from Reedsport paper.

Washington newspapers located near public hearing communities that were called about receiving news releases announcing public hearings in Oak Harbor on Jan. 27, Pacific Beach on Jan. 28, and Cray's Harbor on Jan. 29.

Oak Harbor Whidbey News Times - Editor not aware that any notice or release arrived informing public about the Jan. 29 public hearing in Oak Harbor School District Office, although the Navy contact Joe Overton listed this paper of being notified.

Port Townsend & Jefferson County Leader - Copy editor Lynn Nowak reports that Navy contact Joe Overton provided her with a list of media he contacted but the Leader was not on that list dated Jan. 23. Nowak could find no story run by the Leader.

Port Hadlock - No paper found. Searched because Navy reported an FIS would be placed there. This town is located near Port Townsend where the Leader circulates but evidently did not run a story.

Bremerton Kitsap Sun - Editor can't recall receiving a news item about the Oak Harbor hearing Jan. 27. Did do a story in Nov. 2008 but not about a public hearing.

Pacific Beach North Coast News - Left several messages but received no response about public hearing held in Pacific Beach on Jan. 28 at the Pacific Beach Fire Hall.

Aberdeen Daily World - Editor Karen Peterson said no story was run about the Gray's Harbor Jan. 29 hearing held at Gray's Harbor College Cafeteria although the Navy contact Joe Overton listed the Daily World as being notified. There is no Gray's Harbor newspaper.

California newspapers located near public hearing community where February 2 public hearing was scheduled. It was scheduled for Eureka at the Eureka Women's Club.

Eureka Times Standard - Editor James Paulk said no notice was received about the public hearing set for Feb. 2. Paulk said he regretted not being informed because that community is interested and very active in marine environmental issues. "Would have filled an auditorium," he said had the public been notified.

Score: Five Washington community newspapers received no notice. Port Hadlock has no paper. Pacific Beach North Coast News did not respond to inquiry. The Joe Overton list provided to the Port Townsend & Jefferson County Leader listed the Whidbey, Bremerton and Aberdeen papers although all these paper editor report receiving no notice. Overton listed several urban papers and a number of give-away papers. California's one hearing city paper received no notice. Conclusion: Navy failed to notify any community newspaper in 2009 hearing sites in Washington, Oregon and California to comply with NEPA "early notification" requirement.

Provided below are the seven Library Repositories listed in the Navy's Public Hearing Information Booklet found on the NEPA Process and Community Involvement Page. Our group learned that the KATZ P. R. firm was both contracted by the Navy to hire private "preparers" to write and produce the EIS and then to see that copies of the EIS were delivered to the seven library repositories in plenty of time for the public to examine what the Navy was proposing in order to be able to ask informed questions at the public hearings.

An eighth public library became needed when a second public hearing was scheduled to be held in Tillamook on Feb. 26. The EIS document was to be placed in the Tillamook County Public Library.

- \* Oak Harbor Public Library - Reports that two-volume EIS arrived Dec. 2008 with no instructions of purpose. Because it was called a "Draft," it was never cataloged or shelved. Public had no opportunity to examine or review EIS in order to ask informed questions at Oak Harbor Jan. 27 public hearing.
  - \* Port Townsend Public Library - Listed in EIS booklet as a "repository site" reports that it received a one-volume EIS copy dated Sept. 2007. Called a "Draft", it was cataloged Oct. 2007. Staff noting it as a "Scoping" publication but reporting no new notice was received in 2008 or 2009 announcing the Oak Harbor public hearing set for Jan. 27.
  - \* Port Hadlock - Jefferson County Rural Library - Listed in the EIS booklet where a "repository" copy of a 2008 EIS two-volume copy would be available, no response yet to our inquiries.
  - \* Emerson Kitsap Regional Library - Reports it has one-volume of EIS dated Sept. 2007 called a "draft" for a 2007 Scoping meeting. Is located in their Sylvan Way Branch. But no 2008 or 2009 EIS two-volume copy has been received relating to the Oak Harbor Jan. 27 hearing or any other WA hearing.
  - \* Hoodium Timberland Regional Library - Listed in EIS booklet where public could find a "repository" copy of the EIS to learn about the Jan. 29 hearing scheduled for a Gray's Harbor site- but actually scheduled for Gray's Harbor College cafeteria in Aberdeen WA. This library has a two-volume EIS which arrived Dec. 2008. It's uncertain if it has yet to be cataloged. Librarian says because it may be called a "draft" with no instructions of purpose or time-relatedness may be the reason it still remains uncataloged.
  - \* Lincoln City Public Library - Staff reports that this library did receive a two-volume boxed EIS document some weeks before the Newport Public Hearing at the Hatfield Marine Science Center, scheduled for Jan. 30. After citizen inquiry, librarian finds two-volume EIS still boxed with no cover letter information about its purpose or time-relatedness. So on Feb. 13, 15 days after the Jan. 30 public hearing in Newport, this EIS was cataloged and shelved.
  - \* Eureka Humboldt County Library - Librarian Steven Sottong says he is unaware that this library has ever received a copy of the current EIS. As the Eureka newspaper editor remarked, Sottong says this community is an active community of environmental groups and individuals who will want to know why they weren't informed about a public hearing and the ability to review the EIS.
  - \* Tillamook County Public Library - Perhaps the most bizarre happening. Evidently, the KATZ P.R. firm in charge of sending the two-volume copy of the EIS to libraries did send the EIS to the Tillamook County Library address sometime before a second public Oregon hearing was scheduled for Feb. 26 in Tillamook. However, while it was sent to the Tillamook library address, it was directed to the Newport Public Library. So the librarian dutifully reboxed and sent this EIS to the Newport library days before the Feb. 26 Tillamook public hearing. Consequently, Newport now has two-EIS copies and Tillamook no copy. So citizens in the Tillamook area had no EIS to review for the Feb. 26 hearing in order to ask informed questions. Yet another failure of the Navy to comply with NEPA requirements to provide the public with an EIS to examine and review prior to a public hearing.
- Score: Three never cataloged. One cataloged 15 days after public hearing. Two received the 2007 one-volume EIS rather than the two-volume 2008 EIS. Eureka Library received no copy. Tillamook sent their two volumes to Newport after KATZ mixup. No response from Jefferson County Rural Library at Port Hadlock.

To Naval Facilities Engineering Command Northwest  
Attn Mrs. Kimberly Kler

I would like to submit Alternative 3 to the Navy's  
Enhancement proposals: The Peace and Clean Oceans, Marine  
Animal Preservation and Enhancement Alternative

whereas "The Navy cares for the environment... The ocean is our home  
and protecting the maritime environment is not rhetoric - it is  
our life blood." <sup>1</sup>

Whereas the Navy has a "critical role in protecting the oceans  
highways and the global economy it serves." <sup>2</sup>

Whereas 90% of trade is carried by the maritime shipping industry

Whereas 1.3 billion metric tons of goods travel through maritime  
shipping - about 75% of total U.S. trade

Whereas \$1 trillion worth of goods are imported to and  
exported from the United States through maritime shipping <sup>3</sup>

Whereas 90% of all marine debris is now plastic <sup>4</sup>

Whereas the world's post consumer plastic trash from  
the goods, which travel the oceans highways, are

collecting in the Central Pacific Gyre creating the  
Great Pacific Garbage Patch (GPGP) now two times the

size of France and growing daily

Whereas 1 million birds and 100,000 marine mammals  
die in the GPGP each year <sup>5</sup>

Whereas the Albatross and Hawaiian Monk seal are  
close to extinction due to the GPGP <sup>6</sup>

Whereas Dead Oceans are increasing along the Northwest  
Pacific coast of the United States

Whereas whales are committing suicide rather than  
live with the unbearable disturbance of sonar

Whereas an increasing number of birds are found dead,  
starved to death along Oregon's shores due to lack of food.  
Whereas the U.S. has fewer adversaries yet maintains greater  
military might than the history of the world has ever seen  
Whereas the world cannot afford war economically,  
spiritually, or ecologically  
Whereas it is the responsibility of the Navy not only to  
see the clear passage of goods through the seas, but  
to make sure those goods do not become trash in  
the oceans, a hazard to wildlife

Therefore, let it be resolved that the Navy will undertake  
a peace and massive ocean clean-up signing party and  
project, where it will endeavor to engage the maritime  
forces of friendly and formerly adversarial nations in  
an indefinite peace and brotherly love, clean oceans contract.  
The first task will be to clean up the Great Pacific  
Garbage Patch in the doll drums and rescue and revive  
the strangled seals, turtles, birds and fish  
Future projects will be undertaken as recommended  
by a consensus of environmental organizations.

Friends of the Beached Whale  
Eva Bostnick and David Parrish  
Tidewater OR

Footnotes:

- 1 - Protecting our Freedom, Sustaining Our Environment - Department of  
the U.S. Navy brochure, Secretary of the Navy, Donald C. Winter
- 2 - ibid
- 3 - ibid
- 4 - Lanfill-on-sea, Daisy Dumas, Ecologist magazine, Sept. 07
- 5 - ibid
- 6 - ibid

**United States Navy**  
**Public Hearing Comment Form**  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Depositing this form at the Comment Table before you leave tonight.
- 2) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 3) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: Charlotte Mills

Organization/Affiliation: Oregon Shores Conservation Coalition

Address: 480 Buck Creek Road

City, State, Zip Code: Tidewater OR 97390

Comments: Comments to come separately via Fax or internet or mail.

Contents attached here are media reports and other materials

I want included in my Public Comment contributions.

Please be diligent in placing my comment to be sent 2/17/09 to the materials being FED-Xed to you today - 2/16/09

Charlotte Mills 2/16/09

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.



## South Lincoln County News

### Sandy

**The Sandy Post**  
PO Box 68, Sandy 97055; 503-668-5348;  
Fax: 503-668-0748; Wed., Chandra Stewart  
(P); Marcus Hancock (E); Circ.: 2,838;  
Establish: 1937  
E-mail: mhancock@sandypost.com  
Web: www.sandypost.com

### Scappoose

**The South Coast Spotlight**  
PO Box C, Scappoose 97066; 503-564-6879;  
Fax: 503-564-6380; Wed., Art and Sally  
Heerwagen (P); Art Heerwagen (E); Circ.:  
1,740; Establish: 1969  
E-mail: news@scappoosepost.com  
Web: www.spotlightnews.net

### Seaside

**Seaside Signal**  
PO Box 348, Seaside 97138; 503-738-5561;  
Fax: 503-738-3551; Thurs., Jesse Mullin  
(P&E); Publisher: @seasidejournal.com  
Web: www.seasidejournal.com

### Sheridan

#### The Sun

PO Box 68, Sheridan 97378; 503-843-2312;  
Fax: 503-843-3830; Wed.; George  
Robertson (P&E); Circ.: 1,834; Establish:  
1890  
E-mail: news@sheridanpost.com  
Web: www.sheridanpost.com/us/shshjm

### Silverton

#### Silverton Appeal Tribune

PO Box 303, Silverton 97381; 503-873-8385;  
Fax: 503-873-8054; Wed.; John Deenan (E);  
Circ.: 3,456; Establish: 1880  
E-mail: news@salemtribune.com  
Web: www.silvertonappeal.com

### St. Helens

#### The Chronicle

PO Box 1153, St. Helens 97051; 503-397-  
0116; Fax: 503-397-4093; Wed. and Sat.;  
Pamela A. Petersen (P); Circ.: 4,984;  
Establish: 1881  
E-mail: news@sthechronicleonline.com  
Web: www.sthechronicleonline.com

Media Directories

### Stayton

**The Stayton Mail**  
PO Box 400, Stayton 97383; 503-769-6338;  
Fax: 503-769-6207; Wed.; John Deenan (E);  
Circ.: 2,858; Establish: 1884  
E-mail: news@staytonmail.com  
Web: www.staytonmail.com

### Sutherlin

**North County News**  
222 W. Central, Sutherlin 97379; 541-459-  
0718; Fax: 541-459-0283; Wed.; Jean Ivey  
(P&E); Circ.: 2,000; Establish: 1929  
E-mail: info@northcountynews.com  
Web: www.northcountynews.com

### Sweet Home

**The New Era**  
PO Box 39, Sweet Home 97386; 541-367-  
2135; Fax: 541-367-2100; Thurs.; Susan  
Elliott (P); Publisher: @thnewsv.com  
Web: www.thnewsv.com

### The Dalles

**The Dalles Chronicle**  
PO Box 1910, The Dalles 97088; 541-296-  
5411; Fax: 541-296-5355; Mon.-Fri. p.m.;  
Sally M. Martin, Robin (P); Dan Spruz  
(E); Circ.: 4,521; Establish: 1,890  
E-mail: rdillon@englenews.com  
Web: www.thedallechronicle.com

### Tigard/Thalatin

**The Times**  
PO Box 22109, Portland 97266; 503-684-  
0360; Fax: 503-620-3433; Thurs.; Steve  
Clark (P); Mikel J. Kelly (E); Circ.: 6,470;  
Establish: 1956  
E-mail: email@commnews.com  
Web: www.thetimes.com

### Tillamook

#### Headlight Herald

PO Box 444, Tillamook 97141; 503-843-  
7535; Fax: 503-842-8842; Wed.; Kathleen  
Newson (P); Joe Hagg (E); Circ.: 7,809;  
Establish: 1888  
E-mail: headlight@occomnews.com  
Web: www.tillamookheadlight.com

### Vale

#### Mulhew Enterprise

PO Box 310, Vale 97188; 541-473-3377; Fax:  
541-473-5268; Wed.; Julie Scarfield (P);  
Circ.: 1,580; Establish: 1909  
E-mail: mulhew@time.com

### Veneta

#### West Lane News

PO Box 188, Veneta 97487; 541-935-1882;  
Fax: 541-935-4082; Thurs.; Mike and  
Sandy Thoele (P); Jennifer Jones (E); Circ.:  
1,785; Establish: 1961  
E-mail: westlanenews@aol.com

### Medford

#### Mail Tribune

PO Box 1108, Medford 97501; 541-776-4411;  
Fax: 541-776-4411; Thurs.; Robert L. Himmer (E);  
Circ.: 30,244 (M-Th, Sat.), 37,800 (Fri.),  
32,864 (Sun.); Establish: 1906  
E-mail: letters@mailtribune.com  
Web: www.mailtribune.com

### Mill City

#### Mill City Independent Press

PO Box 108, Mill City 97360; 503-897-4216;  
Fax: 503-897-2238; Wed.; Lane Foster  
(P&E); Circ.: 1,291; Establish: 1998  
E-mail: mcpnews@aol.com

### Millon-Freewater

#### Valley Herald

PO Box 664, Millon-Freewater 97862; 541-  
938-6688; Fax: 541-938-6689; Fri.;  
Melanie Hall (P); Circ.: 1,075; Establish: 2001  
E-mail: valleyherald@guest.net

### Molalla

#### Madolia Pioneer

PO Box 168, Molalla 97038; 503-829-2301;  
Fax: 503-829-2317; Wed. and Sat.; William  
D. Casel (P); Jerry Reichel (E); Circ.:  
3,550; Establish: 1911  
E-mail: pioneer@molaliapioneer.com  
Web: www.molaliapioneer.com

### Myrtle Creek

#### The Douglas County Mail

PO Box 729, Myrtle Creek 97430; 541-863-  
6484; Fax: 541-863-6484; Thurs.;  
Dennis Walker (E); Circ.: 1,811; Establish: 1902  
E-mail: dmcc@power.net.com

### Myrtle Point

#### Myrtle Point Herald

PO Box 606, Myrtle Point 97458; 541-572-  
2275; Fax: 541-475-3710; Wed.; Tony  
Ahnert (P); Susan Matheny (E); Circ.:  
4,020; Establish: 1904  
E-mail: tahmert@englenews.com  
Web: www.mypointer.com

### Newberg

#### The Newberg Graphic

PO Box 76, Newberg 97132; 503-538-2181;  
Fax: 503-538-1652; Wed. and Sat.; Joe  
Peshaw (P&E); Circ.: 4,694; Establish: 1888  
E-mail: thegraphic@englenews.com  
Web: www.newberggraphic.com

### Newport

#### News-Times

PO Box 965, Newport 97365; 541-265-8571;  
Fax: 541-265-1033; Wed. and Fri.; Mark  
Bryant (P); Gail Kimberling (E); Circ.:  
9,512; Establish: 1882  
E-mail: gail.kimberling@net.net  
Web: www.newportnews.com

### Oakridge

#### David Lewington Echo

PO Box 900, Oakridge 97463; 541-782-4241;  
Fax: 541-782-3333; Thurs.; Larry and  
Debra Roberts (P); Larry Roberts (E);  
Circ.: 310; Establish: 1973  
E-mail: lindstet@dn.org

### Ontario

#### Argus Observer

PO Box 991, Ontario 97914; 541-889-5387;  
Fax: 541-889-3347; Mon.-Fri. p.m.; Sun.  
a.m.; Steve Kahl (P); Pat Caldwell (E);  
Circ.: 6,641; Establish: 1896  
E-mail: sevad@argusobserver.com  
Web: www.argusobserver.com

### Pendleton

#### East Oregonian

PO Box 689, Pendleton 97801; 541-276-  
3022; Fax: 541-276-3766; Thurs.;  
Karl H. p.m.; Sat.-Sun. a.m.; David  
Balsom (P); Steve Brown (E); Circ.:  
10,287 (M-Fri), 10,575 (Sat.-Sun.); Establish:  
1875  
E-mail: eastore@eastoregonian.com  
Web: www.eastoregonian.info

### The Pendleton Record

PO Box 69, Pendleton 97801; 541-276-3853;  
Fax: 541-278-2916; Thurs.; Margarette  
Mazanetz (P&E); Circ.: 852; Establish: 1911  
E-mail: penrec@uci.net

### Port Orchard

#### Port Orchard News

PO Box 5, Port Orchard 97465; 541-332-2361;  
Fax: 541-332-8101; Wed.; Willowsoning  
Hall (P&E); Circ.: 977; Establish: 1958  
E-mail: portordnews@earthlink.net  
Web: www.portordnews.com

### Portland

#### Daily Journal of Commerce

PO Box 97, Portland 97206; 503-226-  
3111; Fax: 503-226-2216; Mon.-Fri. a.m.;  
Brian Hunt (P&E); Circ.: 3,126; Establish:  
1872  
E-mail: justin.starr@dcjournal.com  
Web: www.dcjournal.com

### The Oregonian

1320 SW Broadway, Portland 97201; 503-  
221-8327; Fax: 503-227-5306; Mon.-Sun.  
a.m.; Fred A. Stickett (P); Sandy Rowe (E);  
Circ.: 336,850 (M-F), 320,953 (Sat.),  
401,994 (Sun.); Establish: 1850  
E-mail: publicinfo@oregonian.com  
Web: www.oregonian.com/oregonian

### The Register

415 N. Killingsworth, Portland 97217; 503-  
285-5555; Fax: 503-285-2900; Wed.;  
285-5555

### Gold Beach

#### Central Coast Reporter

PO Box 66, Gold Beach 97444; 541-347-  
6645; Fax: 541-347-6644; Wed.; Jim and  
Molly Walker (P); Jim Walker (E); Circ.:  
2,806; Establish: 1914  
E-mail: molly@centralcoastreporter.com  
Web: www.centralcoastreporter.com

### Gresham Pass

#### Gresham Pass Daily Courier

PO Box 1468, Gresham Pass 97528-0330; 541-  
474-7001; 800-228-0457; Fax: 541-474-  
3624; Mon.-Sat. p.m.; Dennis Mack (P);  
Gander (P); Tiffany O'Dell (E); Circ.:  
9,299; Establish: 1911  
E-mail: todell@hondakonline.com  
Web: www.hondakonline.com

### Gresham

#### Herald Journal

PO Box 646, Halfway 97834; 541-742-7900;  
Fax: 541-742-7933; Wed.; Steve Blackston  
(P&E); Circ.: 1,217; Establish: 1984  
E-mail: hbj@netnet.com  
Web: www.halfway.com/hj

### Halfway

#### Hells Canyon Journal

PO Box 537, Hopper 97836; 541-676-9238;  
Fax: 541-676-9238; Wed.;  
Circ.: 1,417; Establish: 1893  
E-mail: gerald@hells.net  
Web: www.hopper.net/gerald

### Hesperia

#### Hopper Gazette Times

PO Box 357, Hopper 97836; 541-676-9238;  
Fax: 541-676-9238; Wed.;  
Circ.: 1,417; Establish: 1893  
E-mail: gerald@hells.net  
Web: www.hopper.net/gazette

### Hermiston

#### The Hermiston Herald

PO Box 46, Hermiston 97838; 541-567-6457;  
Fax: 541-567-1255; Tues. and Fri.; Michael  
Kane (E & GM); Circ.: 3,673; Establish: 1906  
E-mail: mjkane@hermistonline.com  
Web: www.hermistonherald.com

### Hillsboro

#### Hillsboro Argus

PO Box 588, Hillsboro 97123; 503-648-1131;  
Fax: 503-648-9191; Tues. and Fri. a.m.; W.  
Clark Gallagher (P); Gary Stutzman (E);  
Circ.: 10,294; Establish: 1873  
E-mail: stutzman@hillsboronews.com  
Web: www.oregonlive.com/argus

### John Day

#### Blue Mountain Eagle

195 N. Canyon Blvd., John Day 97845; 541-  
575-9710; Fax: 541-575-1244; Wed.;  
Marissa Allen (Gen. Mgr.); Scott Malloy  
(E); Circ.: 2,928; Establish: 1898  
E-mail: editor@bluemountaineagle.com  
Web: www.bluemountaineagle.info

### John Day

#### Blues Mountain Eagle

PO Box 330, Jefferson 97352-0330; 541-327-  
1776; Fax: 541-327-2241; Thurs.; Glen  
Abdrushon (P); Maria Nelson (E); Circ.:  
682; Establish: 1890  
E-mail: news@jeffersonreporter.net  
Web: jeffreporternews.com

### Jefferson

#### Jefferson Review

PO Box 300, Jefferson 97352-0330; 541-327-  
1776; Fax: 541-327-2241; Thurs.; Glen  
Abdrushon (P); Maria Nelson (E); Circ.:  
682; Establish: 1890  
E-mail: news@jeffersonreporter.net  
Web: jeffreporternews.com

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Web: www.bluemountaineagle.info

**WAPPAPET - SOUTH LINCOLN COUNTY NEWS**  
 P.O. Box 1419 / MADRAS, OR 97534  
 PHONE (503) 563-6577 / FAX (503) 563-6577

**The Columbia Press**  
 PO Box 130, Warrenton, 97146, 503-861-3331; Fax: 503-325-1477; Etl: Gary Neenan (P&E); Circ.: 906; Estab: 1922  
 E-mail: colnhilpress@earthnet  
 Web: www.beecolnhilpress.com

**West Linn**  
 West Linn Publishing  
 PO Box 254, Oswego, 97024, 503-635-8818; Fax: 503-635-8837; Title: J. Brian Moshen (P); Tracy Stepp (E); Circ.: 3,897; Estab: 1980  
 E-mail: email@westlinndings.com  
 Web: www.westlinndings.com

**Wilsonville**  
 Wilsonville Spokenum  
 Ave. #10, Wilsonville, 97070, 503-482-3755; Fax: 503-482-5255  
 Web: William D. Casel (P); Curt Kipp (E); Circ.: 3,351; Estab: 1985  
 E-mail: wilsonvillepokesman@eaglenews.com  
 Web: www.wilsonvillenews.com

**Woodburn**  
 Woodburn Independent  
 PO Box 96, Woodburn, 97071, 503-981-3441; Fax: 503-981-1253; Wed. and Sat.: Les Reitan (P); John Baker (E); Circ.: 4,256; Estab: 1888  
 E-mail: woodburnindependent@eaglenews.com  
 Web: www.woodburnindependent.com

**SELECTED PERIODICALS PUBLISHED IN OREGON**

A representative sample of the many periodicals published in Oregon, compiled by the Oregon State Library.

**Key-A - Annual; BM - Bi-monthly; BY - Bi-weekly; Q - Quarterly; P - Publisher's schedule; N - Semi-annually; W - Weekly**

**April/June Northwest (SM)** 1984, Sterling Ag. LLC, PO Box 1626, Pendleton 97801-0189; 541-276-6202

**Animal Law Review (SA)** 1995, Lewis and Clark Law School, 10015 SW Terwilliger Blvd., Portland 97219; 503-768-6680; Fax: 503-768-6671; Web: www.lclark.edu/org/animalaw

**Backwoods Home Magazine (BM)** 1989; PO Box 712, Gold Beach 97444; 541-247-8900; Fax: 541-247-8600; Web: www.backwoodshome.com

**Birth to Three Parenting Newsletter (Q)** 1978; 86 Centennial Loop, Eugene 97401-7909; 541-484-5316; Fax: 541-484-1449; Web: www.birthto3.org

**Black Sheep Newsletter (Q)** Tyra Black Sheep Press, 25455 NW Dixie Mountain Rd., Scappoose 97056; 503-621-3063; Fax: 503-621-3063; http://members.aol.com/blshweb

**Book Dealers World (Q)** 1980; North American Exchange, PO Box 606, Cottage Grove 97424; 541-942-7455; Fax: 541-258-5625

**Bronxton NW (M)** 1997; 311 B Ave., Suite P, Lake Oswego 97034; 503-675-7366; Fax: 503-675-7368; Web: www.bronxtonnw.com

**Calyx (SA)** 1976; PO Box B, Corvallis 97339; 541-753-9384/1-888-336-2805; Fax: 541-753-0315; Web: www.prairie.com/calyx

**Cascade Fisheries (M)** 1975; Cascade Marine, Inc., 9720 K. Street, Falls 97601-1390; 541-883-4000/1-800-272-0788; Fax: 541-885-4447

**Cascade East (Q)** 1976; Cascade Publications, 404 NE Norton Ave., Bend 97701; 541-388-5665; Web: www.cascadeeast.com

**Commercial Review (W)** 1896; 2380 NW Roosevelt, Portland 97210-2223; 503-226-5758; Fax: 503-224-0947

**Dialogue (BM)** 1961; Bindskillis, Inc., PO Box 5181, Salem 97304-0181; 503-581-4224/1-800-860-4224; Fax: 503-581-0178; Web: www.blindskillis.com

**Digger (M)** 1988; Oregon Association of Nurses, 29751 SW Town Center Loop W, Wilsonville 97079; 503-682-3089/1-800-422-5401; Fax: 503-682-4829; Web: www.oanet.org/diggyjournal.com

**El Hesperic (W)** 1981; PO Box 306, Portland 97207-0306; 503-228-3139; Fax: 503-228-3384; Web: www.hispnews.com

**El Latino de Hoy: Semanario Latinoamericano de Oregon (W)** 1991; 7112 NE Sandy Blvd., Portland 97213; 503-493-1106; 503-493-1126; Fax: 503-493-1107; Web: www.elatinodehoj.com

**Environmental Law (Q)** 1970; Lewis and Clark Law School, 10015 SW Terwilliger Blvd., Portland 97219; 503-768-6700; Fax: 503-768-6671; Web: www.lclark.edu/org/envl

**Eugene Weekly (W)** 1993; 1251 Lincoln, Eugene 97401; 541-484-0519; Web: www.eugeneweekly.com

**Fighting and Tying Journal (Q)** 1978; Frank Armito Publications, PO Box 8212, Portland 97208; 503-434-8000; Fax: 503-434-8000; 653-2766; Web: www.ammbooks.com

**Glimmer Train (Q)** 1993; Glimmer Train Press, Inc., 1211 NW Glisan St., Suite 207, Portland 97209; Web: www.glimmertrain.com/frank.html

**Heritage Newsletter (M)** 1987; Linn County Genealogical Society, PO Box 1222, Albany 97321-0537; 541-928-2487

**Home Power (BM)** 1987; Home Power, PO Box 530, Ashland 97520-0520; 541-512-0201/1-800-707-6985; Fax: 541-512-0343; Web: www.homepower.com

Hi Carol,

We didn't find out about the meeting until it had already been held. One of my colleagues at our sister paper in Tillamook heard about it after finding the article "Navy Proposes Increased Activity Off Oregon" online on Feb. 2. I'm not sure if she was tipped off to the article by a reader or discovered it on her own. After that, my reporter, Patrick Alexander, started doing some digging and was able to get the attached press release, again on Feb. 2, so at least we could let folks know a little about what was going on before the deadline passed (we're a weekly published on Wednesdays). We will have a follow-up in the Feb. 11 paper. As for public notice, the only newspaper in Lincoln County that the Navy ran legals in was the Newport News-Times. They technically serve the whole county, but a lot of North County readers subscribe only to our newspaper. The Navy, however, would not have known this and could have thought they were reaching out to the whole county. I'm not sure why the News-Times didn't do something in advance, although the editorial department doesn't take care of the legals and might not have seen them, but they were at the meeting at least.

Hope that helps. ☐

☐  
 Allyson Longueira  
 Managing Editor  
 The News Guard  
 930 S.E. Highway 101  
 Lincoln City, OR ☐ 97367  
 (541) 994-2178  
 info@thenewsguard.com

• **Only Obama, or a failed economy, can stop this (1+ / 0-)**

Recommended by:

Fe Bongolan

From the NORTHWEST TRAINING RANGE COMPLEX DRAFT EIS/OEIS | December 2008:

Following are lists of explosives (page D-8) and sonars (page D-6) to be used.

The NEWs (net explosive weight) for these sources are as follows:

- EER Source—5 pounds
- Demolition charge—10 pounds in Explosive Ordnance Disposal (EOD), 100 pounds in a sinking exercise (SINKEX)
- MK-48—851 pounds
- Maverick—78.5 pounds
- Harpoon—448 pounds
- HARM—41.6 pounds
- HELLFIRE—16.4 pounds
- SLAM—164.25 pounds
- MK-82—238 pounds
- GBU-10—945 pounds
- GBU-12—238 pounds
- GBU-16—445 pounds
- 5-inch rounds—9.54 pounds
- 76 mm rounds—1.6 pounds

The exposures expected to result from these sources are computed on a per in-water explosive basis. The cumulative effect of a series of explosives can often be derived by simple addition if the detonations are spaced widely in time or space, allowing for sufficient animal movements as to ensure a different population of animals is considered for each detonation.

Table D-2. Active Sonars Employed in NWTRC

Sonar Description	Frequency Class	Exposures Reported	Units per Hour
MK-48 Torpedo sonar	High-frequency	Per torpedo	One torpedo run
AN/SQS-53C Surface ship sonar	Mid-frequency	Per hour	120 sonar pings
AN/SQS-56 Surface ship sonar	Mid-frequency	Per hour	120 sonar pings
AN/SSQ-62 Sonobuoy sonar	Mid-frequency	Per sonobuoy	8 sonobuoys
AN/AQS-22 Helicopter-dipping sonar	Mid-frequency	Per dip	2 dips
AN/BQS-15 Submarine sonar	High-frequency	Not modeled	Not modeled

Our Comments to Navy:  
January 26, 2009

Mrs. Kimberly Kler—NWTRC EIS/OEIS  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203,  
Silverdale, WA 98315-1101

Re: Northwest Training Range Complex Draft Environmental Impact Statement

A. An extension of the comment period is needed on grounds the website to submit comments was non-functional during more than half of the comment period. The Navy's principal mechanism for public information and input about the EIS, their website:

( [www.nwtrangecomplexeis.com/EIS.aspx](http://www.nwtrangecomplexeis.com/EIS.aspx)), was seriously compromised between the Dec. 29, 08 inception of the EIS Public Response Period and Jan. 21.

Attempts to make comments via the website were not allowed due to "abort issue" (Navy's term) from Dec 29 until Jan. 20. The website was not accessible whatsoever between Jan 15 and Jan 21. This represents 51% of the comment time frame and is a breach of process established by the Navy.

We contest the Navy's breach of their own EIS comment process and respectfully request an extension of at least one month.

B. Due to the decline in numerous marine species and the lack of information available to assess the impacts of the Navy's proposed expansion on those species, especially with proposed testing of new systems and inadequate marine mammal monitoring, a "No Action Alternative" is the preferred option.

C. Prior to supporting any expansion of training activities the Navy needs to fund independent research on the seasonal presence of marine fish, birds and mammals found within their training ranges rather than rely on outdated surveys.

D. The Navy needs to provide the public access to non-classified ambient acoustic information in their training ranges to confirm compliance with their operations.

E. The Navy needs to demonstrate a means to respond to environmental consequences of a maritime incident in all their operating areas including interactions between their ships and commercial vessels.

F. We have been involved in observing and researching several species of cetaceans since 1981. We are well acquainted with the difficulty of recognizing brief sightings or faint acoustic signals. In our judgment the mitigation measures detailed in this EIS are not sufficient to reliably identify the presence of cetaceans in most instances.

Recognition of marine mammals at sea either by sight or by sound is highly problematic even for experienced personnel. The Navy should improve the mitigation measures to include training of monitoring personnel by experienced whale biologists to improve recognition of marine mammals by visual and acoustic monitoring. Recognizing acoustic calls is difficult for most species in calm conditions. Currently proposed monitoring by inexperienced personnel is not likely to be effective even in normal sea-state conditions due to the difficulty of recognizing brief visual or acoustic cues. These exercises would take place in the midst of multiple ships and high-powered and explosive sonars and munitions, often making recognition impossible. Training monitors with visual and audio examples interpreted by experienced cetacean observers would improve reliability.

Even with the best monitoring by experienced people, the mitigation measures are inadequate. It's usually difficult to reliably detect marine mammals underwater or in rough weather, even more so when compounded by training conditions.

G. The long-term challenge is to dial down the need for these training exercises altogether, which is a problem of international relations and diplomacy. President Obama and Sec. of State Clinton can prevent this danger to marine life by fostering improved international

communications and reducing hostilities.  
Orca Network

Feb-02-2009 16:55

### Navy Plans to Take Over Oregon Coast Airspace for Military Operations

Letter to the Salem-News.com Editor by Marie Gargano

**The Navy needs to rethink and abandon large parts of this entire proposal. The potential effects of new and increased military activity off the coast of Oregon could result in a general degradation of the environment, be fatal to wildlife and detrimental to the human quality of life.**

(DEPOE BAY, Ore.) - I went to the US Navy's hearing last Friday night in Newport. What an "eye opener"!!!

I was told by one of the Navy's representatives that the Navy wants to take over the two training areas currently used by the Oregon Air National Guard. This includes the entire coastal air space and coastal waters of Oregon.

The hearing was part of their "public outreach"; strangely only one hearing in the entire state of Oregon. I was told the Navy published a small notification of the hearing in a Lincoln County newspaper and no other newspaper in Oregon.

As evidenced from their public comments, most people learned of the hearing at most 2-3 days in advance. As a result, only about 40 people attended. Six people made public comments for the official record. There was no question and answer period. Few knew about the Navy's Draft Environmental Impact Statement website: [nwtrangecomplexeis.com/EIS.aspx](http://nwtrangecomplexeis.com/EIS.aspx).

PLEASE go to the National Resources Defense Council website to read about the mid-frequency sonar effect on whales and other marine mammals; it causes their eardrums to rupture and they die. The NRDC sued the Navy over this in California and got a partial victory. Of course, the Navy talked about all they will do to protect marine life; the NRDC partial court victory is making them do it!!! Not optional.

OSU Professor Bruce Mate told me at the hearing there isn't a 12-mile offshore limit to the Navy's proposal. In fact, one of the Navy personnel said that if they need to do shallow water training, their proposal allows them to do it.

Here's the deal..... The Navy wants to take over the Oregon Air National Guard areas off the entire coast of Oregon in order to expand the Navy's training activities, including mine fields (YES, I said mine fields!), predator drones, artillery shelling practice, submarine exercises including munitions and their associated debris. These are what I picked up from other speakers. Who knows what else is in the DEIS????

Included in the Navy's handout for their preferred proposal:

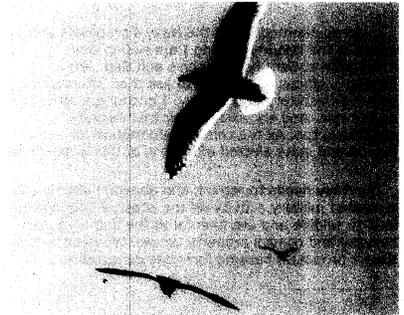
EA-18G Growler aircraft... which flies at Mach 1.6, exceeding the "sound barrier". Will the coast be subjected to sonic booms if the Navy gets what they want?

Guided missile submarines

P-8 Multimission Maritime aircraft

Unmanned Aerial systems

Air and sea surface targets



Some say Oregon's coastal airspace is already spoken for  
Salem-News.com photo by Bonnie King

Portable undersea tracking range for anti-submarine training

Use of mid-level and high frequency active sonar (nrdc.org/wildlife/marine/sonar.asp nrdc.org/wildlife/marine/sonar.asp), known to cause marine mammal deaths.

Please go to this website and read some of the documents in the Navy's DEIS.... NWTRangeComplexEIS.com They are quite alarming.

I was so alarmed about the Navy's proposals that I spoke at the hearing, saying I am calling Gov. Kulongoski's, Sen. Ron Wyden's and Sen. Jeff Merkley's offices on Monday to ask their intervention with the Secretary of the Navy. I encourage others to do likewise. And encourage their friends and neighbors, too. All the contact information for our federal and state elected officials is at this website: nrdoonline.org/nrdo/leg-lookup/search.tel

The Navy needs to rethink and abandon large parts of this entire proposal. The potential effects of new and increased military activity off the coast of Oregon could result in a general degradation of the environment, be fatal to wildlife and detrimental to the human quality of life. And contrary to the best interests of the tourism industry and coastal property values. We need to ensure our concerns are heard loud and clear before the Navy's proposals become foregone conclusions.

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**A Blank Check Over the Pacific Northwest Coast**

by Planet Waves  
Tue Feb 03, 2009 at 10:59:15 AM PST

By CAROL VAN STRUM

In yesterday's post, "Navy Plan Would Turn Pacific Coast Into Firing Range," we provided an overview on the current status of the Environmental Impact Statement (EIS) prepared by the Department of the Navy on its proposed use of coastline from Northern California to the Puget Sound as a firing range.

The most frequent question asked by people upon discovering the Navy's plans is, "Why are they doing this?" Of course, the short answer under which all other answers flow is, "National Security." Cloaked in an impressive array of laws and presidential directives, the Navy essentially claims authority to do whatever it pleases, whenever and wherever it pleases. The EIS process, however, is at least supposed to alert the public to what those actions are going to be.

The present EIS does not even offer the public that minimal information.

Planet Waves's diary :: ::

The "actions" supposedly proposed by the Navy in various alternatives are specified only in the vaguest terms, and the locations for such actions are rarely specified at all. Because national security apparently requires the never-ending acquisition of new weapons systems, new aircraft, new ships and new equipment, the Navy intends to expand the area, frequency and intensity of weapons testing and training operations currently centered on Puget Sound, and intends to do so over the entire Pacific Northwest as necessary -- without, of course, specifying what constitutes "necessary."

Obviously, national security does not require a competent environmental impact statement or more than token notice to the public. Susan Hogg, the attorney quoted in yesterday's article, makes this abundantly clear in her letter to the Oregon Women Lawyers (OWLS) listserv, describing in detail the Navy meeting on Jan. 30. Following is the full text of her letter:

To all,

Last Friday, I attended a Navy open house and hearing on the Navy's EIS (Environmental Impact Statement) and OEIS (Overseas Environmental Impact Statement). The EIS covers the state waters (three nautical miles), territorial waters out to 12 nm and the EEZ (Exclusive Economic Zone) out to 200 nm from Washington to northern CA.

It's being done because the Navy wants to significantly increase its training activities, which includes using unmanned drones, setting off explosives underwater, setting up minefields, targets for shooting practice and other practice warfare exercises. If you haven't heard about this document or what the Navy intends to do, don't be surprised, almost no one in Oregon has. Even worse, the Navy's deadline for submission of comments on its draft EIS/OEIS, a huge document that purports to describe all the "significant" environmental impacts on the Oregon coast from greatly increased activities, is Feb. 11, 2009.

I found out about this event several days before Friday, only because someone on a coastal issues list serve I'm on said he'd seen mention of the public meetings in the Seattle Post-Intelligencer. Turns out that the Navy believes that "adequate" notice regarding an EIS/OEIS that allegedly covers the environmental impacts of greatly increased naval warfare exercises along the coast of OR, from the shoreline to 200 nm offshore, required a notice of open house and hearing in: (1) The Lincoln City News-Guard. That's it.

The sole paper copy of this EIS/OEIS is in the Driftwood Public library in Lincoln City, OR and the library is misidentified as the Lincoln City library. I subsequently saw a single page notice of the open house/hearing, with a web address for reviewing the EIS/OEIS, on the notice board at my local public library. This notice, while identifying the HMSC (Hatfield Marine Science Center of Oregon State University) as the meeting location, did not state where at the Marine Science Center (MSC) the meeting would be held.

notice and time to review this important document. Maybe to let your representatives know that the solution is to schedule several more open houses and hearings in other towns along the coast as well as in Portland, Salem, Eugene and Medford or Grants Pass.

Maybe you'll feel the governor's office should hear what you think too. For the record, the draft EIS indicates that the Navy did not believe it needed to contact, notify or work with the governor of Oregon when preparing this document, not to mention the Oregon State Conservation Coalition, Oregon Department of Fish and Wildlife or marine biologists or the HMSC.

You can find the EIS/OEIS at www.NWTRRangeComplexEIS.com. Click on Document Takes a while to load unless you have a faster broadband connection than I do.

Susan Hogg.

The original of this article can be found at Planet Waves

Tags: Bush Administration, environment, Department of the Navy, conservation, military, weapons, day pamphlets, Elizabeth Edwards

Permalink | 11 comments

Comments: Expand Shrink Hide Indented Flat

A tip jar, perchance to dream (19+ / 0-)

that we can get to our Congresspeople to stop this! by Planet Waves on Tue Feb 03, 2009 at 11:00:14 AM PST

Could California raise some money by taxing the (2+ / 0-)

Navy's destruction of flora, fauna and assorted biological species that happen to exist in Naval waters. Go after em Arnold...Make em pay to defile the coast "Better a little late, than a little never". Julian Winston by Johnny Rapture on Tue Feb 03, 2009 at 11:05:55 AM PST

He needs to fly a helicopter (2+ / 0-)

holding onto his wife Maria's arm as she clings for dear life and below, terrorists are firing rockets from shoulder launchers. by Planet Waves on Tue Feb 03, 2009 at 11:10:17 AM PST [ Parent ]

That's wild...That's Show Biz...Aint it...?(0+ / 0-)

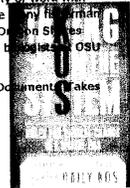
"Better a little late, than a little never". Julian Winston by Johnny Rapture on Tue Feb 03, 2009 at 11:14:14 AM PST [ Parent ]

Its a take of on a scene (2+ / 0-)

from "True Lies" by Planet Waves on Tue Feb 03, 2009 at 11:19:28 AM PST [ Parent ]

OK..Forgot (0+ / 0-)

"Better a little late, than a little never". Julian Winston by Johnny Rapture on Tue Feb 03, 2009 at 11:20:30 AM PST



This book captures the spirit of the most coherent guide to political organizing - on or off the internet - penned in a generation - Al Giordano

The most coherent guide to political organizing - on or off the internet - penned in a generation - Al Giordano

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• 5-inch rounds—9.54 pounds  
• 76 mm rounds—1.6 pounds  
The exposures expected to result from these sources are computed on a per in-water explosive basis. The cumulative effect of a series of explosives can often be derived by simple addition if the detonations are spaced widely in time or space, allowing for sufficient animal movements to ensure a different population of animals is considered for each detonation.

Table D-2. Active Sonars Employed in NWTRC. Sonar Description Frequency Class Exposures Reported Units per Hour. MK-48 Torpedo sonar High-frequency Per torpedo One torpedo run. AN/SQS-53C Surface ship sonar Mid-frequency Per hour 120 sonar plings. AN/SQS-56 Surface ship sonar Mid-frequency Per hour 120 sonar plings. AN/SSQ-62 Sonobuoy sonar Mid-frequency Per sonobuoy 8 sonobuoys. AN/AQS-72 Helicopter-dipping sonar Mid-frequency Per dip 2 dips. AN/BQS-15 Submarine sonar High-frequency Not modeled Not modeled.

Our Comments to Navy:

January 26, 2009  
Mrs. Kimberly Kler - NWTRC EIS/OEIS  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203,  
Silverdale, WA 98315-1101

- Re: Northwest Training Range Complex Draft Environmental Impact Statement  
A. An extension of the comment period is needed on grounds the website to submit comments was non-functional during more than half of the comment period. The Navy's principal mechanism for public information and input about the EIS, their website: (www.nwtrangecomplexeis.com/EIS.aspx), was seriously compromised between the Dec. 29, 08 inception of the EIS Public Response Period and Jan. 21. Attempts to make comments via the website were not allowed due to "abort issue" (Navy's term) from Dec 29 until Jan. 20. The website was not accessible whatsoever between Jan 15 and Jan 21. This represents 51% of the comment time frame and is a breach of process established by the Navy.  
We contest the Navy's breach of their own EIS comment process and respectfully request an extension of at least one month.  
B. Due to the decline in numerous marine species and the lack of information available to assess the impacts of the Navy's proposed expansion on those species, especially with proposed testing of new systems and inadequate marine mammal monitoring, a "No Action Alternative" is the preferred option.  
C. Prior to supporting any expansion of training activities the Navy needs to fund independent research on the seasonal presence of marine fish, birds and mammals found within their training ranges rather than rely on outdated surveys.  
D. The Navy needs to provide the public access to non-classified ambient acoustic information in their training ranges to confirm compliance with their operations.  
E. The Navy needs to demonstrate a means to respond to environmental consequences of a maritime incident in all their operating areas including interactions between their ships and commercial vessels.  
F. We have been involved in observing and researching several species of cetaceans since 1981. We are well acquainted with the difficulty of recognizing brief sightings or faint acoustic signals. In our judgment the mitigation measures detailed in this EIS are not sufficient to reliably identify the presence of cetaceans in most instances. Recognition of marine mammals at sea either by sight or by sound is highly problematic even for experienced personnel. The Navy should improve the mitigation measures to include training of monitoring personnel by experienced whale biologists to improve recognition of marine mammals by visual and acoustic monitoring. Recognizing acoustic calls is difficult for most species in calm conditions. Currently proposed monitoring by inexperienced personnel is not likely to be effective even in normal sea-state conditions due to the difficulty of recognizing brief visual or acoustic cues. These exercises would take place in the midst of multiple ships and high-powered and explosive sonars and munitions, often making recognition impossible. Training monitors with visual and audio examples interpreted by experienced cetacean observers would improve reliability. Even with the best monitoring by experienced people, the mitigation measures are inadequate. It's usually difficult to reliably detect marine mammals underwater or in rough weather, even more so when compounded by training conditions.  
G. The long-term challenge is to dial down the need for these training exercises

Two federal agencies ran into a tsunami of public protests at the end of January regarding jurisdiction over Oregon coastal waters. The U.S. Navy and the Federal Energy Regulatory Commission (FERC) moved to establish coastal installations with inadequate public notice by the Navy and with no public approval by FERC. The Navy proposes a dozen land, sea, and air projects such as drone air and surface target activities including underwater explosives, practice minefields and anti-submarine devices, and drone aircraft tests from the coastline out to the 250-mile international boundary.

The National Environmental Policy Act (NEPA) requires agencies to properly inform the public of such activities. A Navy public affairs person said they notified one coastal newspaper of a Jan. 30 meeting in Newport and placed one copy of the Environmental Impact Statement (EIS) in one coastal library, both in Lincoln City. The Lincoln City *News-Guard* editor learned of the January 30 meeting on January 29, too late for the weekly Wednesday edition. The 19 Navy presenters nearly equaled the number of citizens who attended, most after hearing of the meeting only hours before it. Public comment on the Navy EIS is due Feb. 11.

FERC arbitrarily issued a preliminary permit to install 200-400 wave energy buoys offshore of Newport, surprising both the New Jersey developer and uncontacted Newport citizens involved in earlier negotiations on numbers and buoy placement. At issue are FERC's claimed authority over ocean areas historically under Oregon's authority, and action taken before Oregon updates its territorial sea plan.

Late news: Citizen action resulted in Oregon's Congressional delegation writing Secretary of the Navy William C. Winter, demanding an extension of the public comment period to April 11 and requesting at least two more **informed** public hearings.

For more information see [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com), or write Kimberly Kler, Naval Facilities Command Northwest, 1101 Tautog Circle, #203, Silverdale, WA 98315-1101

11

## **Navy Plan to Turn Pacific Coast Into Firing Range: Has anybody asked the fish?**

By Yesica on Feb 4, 2009 in [active citizenship](#), [blog](#) |

I came across this open letter yesterday.

To all,

Last Friday, I attended a Navy open house and hearing on the Navy's EIS (Environmental Impact Statement) and OEIS (Overseas Environmental Impact Statement). The EIS covers the state waters (three nautical miles), territorial waters out to 12 nm and the EEZ (Exclusive Economic Zone) out to 200 nm from Washington to northern California.

It's being done because the Navy wants to significantly increase its training activities, which includes using unmanned drones, setting off explosives underwater, setting up minefields, targets for shooting practice and other practice warfare exercises. If you haven't heard about this document or what the Navy intends to do, don't be surprised, almost no one in Oregon has. Even worse, the Navy's deadline for submission of comments on its draft EIS/OEIS, a huge document that purports to describe all the "significant" environmental impacts on the Oregon coast from greatly increased activities, is Feb. 11, 2009.

I found out about this event several days before Friday, only because someone on a coastal issues list serve I'm on said he'd seen mention of the public meetings in the *Seattle Post-Intelligencer*. Turns out that the Navy believes that "adequate" notice regarding an EIS/OEIS that allegedly covers the environmental impacts of greatly increased naval warfare exercises along the coast of OR, from the shoreline to 200 nm offshore, required a notice of open house and hearing in: (1) *The Lincoln City News-Guard*. That's it.

The sole paper copy of this EIS/OEIS is in the Driftwood Public library in Lincoln City, OR and the library is misidentified as the Lincoln City library. I subsequently saw a single page notice of the open house/hearing, with a web address for reviewing the EIS/OEIS, on the notice board at my local public library. This notice, while identifying the HMSC (Hatfield Marine Science Center of Oregon State University) as the meeting location, did not state where at the Marine Science Center (MSC) the meeting would be held.

There are at least two places meetings/lectures are offered, in two different sections of the MSC.

Of the 40 or so people at the open house, six of them offered public comment. One was Dr. Bruce Mate (OSU faculty, I believe) a marine mammals expert, who expressly stated that because of the lack of notice, he had not had time to adequately review this document (at least 700 pages), yet even what he had been able to review indicated there were problems with the data (or lack thereof) as presented in the EIS/OEIS.

Every other commenter expressed similar dismay at the lack of notice. One man, a representative of the whiting fishery, had driven all the way from Tillamook to the Hatfield Marine Science Center, in South Beach, (approx. 70 miles and a two-hour drive) to attend; he said that he had just found out about the hearing that afternoon. Terry Thompson, Lincoln County Commissioner and commercial fisherman, also stated he had just found out about the EIS/OEIS and felt that notice had been inadequate and there was insufficient time to review and submit written comments on the EIS/OEIS.

Mr. Thompson described how he'd been on fishing boat that had lost five people when a never-identified submarine had become fouled in their nets.

The sub was fine, five fishermen were killed. A researcher from NOAA made similar comments regarding inadequate notice and insufficient time to review the EIS/OEIS. The Executive Summary of the EIS/OEIS states that the Navy is working with the National Marine Fisheries Service (NMFS), but it seems the Navy could not be bothered to contact an internationally-known marine mammals researcher, representatives of local fisheries, or

local government representatives (who also happen to be directly involved in the fishing industry).

Coastal residents, businesspeople, research scientists and fishermen on the coast south of Newport are being even more thoroughly ignored: the Navy has no other meetings in Oregon scheduled.

I'm posting this because many of you may own property on the Oregon coast, or spend a few weeks there every summer or just enjoy walking the beaches every once in awhile — you might be interested in the Navy's plans.

The notice regarding the issuance of this EIS/OEIS was grossly inadequate. It is ridiculous for the Navy to believe that only one notice and comment hearing, with notice published in only one small-town coastal newspaper, gives adequate notice and opportunity for (1) all those who reside or own property on the Oregon coast: and/or (2) all those who are interested in what happens to and on the Oregon coast and offshore.

Because of the inadequate notice, the deadline of Feb. 11 does not allow sufficient time for all interested parties to submit written comments. The EIS/OEIS describes a very significant increase in activities in the Navy's training range and, therefore, along the Oregon coast — it matters very much that anyone who cares about the Oregon coast have sufficient time to review and comment on this document.

From my partial review of the Executive Summary and Section 1, I can say that the EIS/OEIS is a vague and contradictory document. It reads as though sections of the earlier (2007) Notice of Intent were transplanted into the EIS/OEIS with no revision. The text says one thing, the tables and maps something rather different.

What is clear is that the Navy's Northwest Training Range Complex includes all waters along the Oregon coast, including inland waters, such as bays and estuaries, subsurface waters, sea floor and the airspace along the coast (as far inland as Idaho) and that the alternatives, so vaguely outlined in the EIS/OEIS, may include greatly increased warfare practice in Oregon coastal waters. That includes unmanned drone flights, underwater minefields, submarine activity, use of various types of sonar (there has been litigation up to US Supreme Court regarding the very serious effects of the Navy's sonar on whales), low altitude training flights of the Navy's new missile bearing jet, etc.

You may think that's fine, you may not. But, like many others in Oregon, you might like to have a chance to review this document for yourself, and have your say as to its adequacy in describing what will happen in the waters and airspace along the Oregon coast and whether or not this draft document adequately assesses those impacts. As matters stand now, you have until Feb. 11 to review the draft EIS/OEIS and submit written comments. I have heard that at least one person has been unable to submit her comments to the website because of the a malfunction of the site.

If you're not happy with this situation, you might wish to contact your elected federal (House and Senate) representatives to let them know what you think of the inadequate notice and time to review this important document. Maybe to let your representatives know that the solution is to schedule several more open houses and hearings in other towns along the coast as well as in Portland, Salem, Eugene and Medford or Grants Pass.

Maybe you'll feel the governor's office should hear what you think too. For the record, the draft EIS indicates that the Navy did not believe it needed to contact, notify or work with the governor of Oregon when preparing this document, not to mention the many fisherman groups along the Oregon coast, environmental organizations such as the Oregon Shores Conservation Coalition, Oregon Department of Fish and Wildlife or marine biologists at OSU or the HMSC.

You can find the EIS/OEIS at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com). Click on Documents. Takes a while to load unless you have a faster broadband connection than I do.

Susan Hogg."

Technorati Tags: EIS, National Security, Navy, OEIS, Oregon

<http://www.elephantjournal.com/2009/02/navy-plan-to-turn-pacific-coast-into-firing-range-...> 2/4/2009

## The Navy and the coast economy

Posted by [gbarnett](#) February 03, 2009 10:21AM

Last Friday, a public hearing was held at the Hatfield Marine Science Center In Newport to garner public comment on the U.S. Navy's expanded use of its Northwest Training Range Complex off the Oregon coast, and specifically on its draft environmental impact statement and overseas environmental impact statement.

Unfortunately, limited publicity about the meeting resulted in relatively light attendance, and many who were there indicated that they had just learned of the meeting -- the only one to be held in Oregon -- and the thousand-plus-page environmental documents. Written comments are due by Feb. 11.

As far as I know the only published notice of this meeting in Oregon was a small notice in the Lincoln City News Guard. One paper copy of the environmental statements was supposedly placed at the Driftwood Public Library in Lincoln City. This is not adequate public notice for comment on the proposed actions that are likely to have a significant impact on the Oregon coast and its economy.

Among the proposed activities are increased use of sonar, surface and air "target services," and an underwater mine field. There will also be increased air and surface traffic by the Navy. Although the Navy dismisses as minimal or nonexistent the impact on the natural environment, I believe its research supporting such assertions warrants considerably more review than it has received.

I am not an expert in such matters, but I am concerned that such increased use by the Navy may also affect research that is underway or proposed affecting marine mammals, our fisheries, and the development of alternative energy sources. And since such activities as whale watching and sport fishing are a key part of coastal tourism, the impact of the proposed actions on tourism is also potentially significant.

The commercial fishing industry has already suffered serious blows, and any further impact on that struggling part of our economy deserves more careful consideration as well.

I have contacted my congressman and senators to request additional hearings in Oregon and an extension of at least 30 days of the deadline for public comment.

The Obama administration has pledged itself to a new era of openness and transparency in government, and I have been pleased to note that many of its first actions were important steps to implement this pledge. I would hope that we could do better than this with regard to the Navy's proposed action off the Oregon coast.

*Richard Cameron lives in Depoe Bay.*

Categories: [oped](#)

### Comments

[shays](#) says...

If this is true, then I agree.

Posted on 02/03/09 at 1:04PM  
Footer

[http://blog.oregonlive.com/opinion\\_impact/2009/02/the\\_navy\\_and\\_the\\_coast\\_economy/prin...](http://blog.oregonlive.com/opinion_impact/2009/02/the_navy_and_the_coast_economy/prin...) 2/4/2009

**Navy vs. FERC: Update from the Front Lines**

by Planet Waves

Tue Feb 10, 2009 at 09:44:16 AM PST

Originally posted at Planet Waves.

Last Thursday, Feb. 5, we reported on conflicting claims to Pacific coastal waters by the US Navy and the Federal Energy Regulatory Commission, specifically citing FERC's surprise permit for a 17-square-mile wave energy project off the coast of Newport, Oregon, smack in the middle of the Navy's proposed target practice range.

Planet Waves's diary :: ::

Following that article, Friday, Feb. 6, was a red-letter day. The Oregon Congressional Delegation wrote Secretary of the Navy Donald Winter, demanding an extension of the comment period on Navy plans until April 11. **While this is an important and welcome event, it is significant only if Secretary Winter agrees to the demands.**

In this regard, a Congressional investigation of the Navy's plans and its inadequate notice to the public **may be paramount**. We learned that the notice provided by the Navy of its proposed plans and EIS was even worse than the Navy itself admitted. The Navy EIS asserts that its notice of availability of the EIS -- and notice of public meetings -- were placed in the (Lincoln City) News Guard, the only Oregon newspaper mentioned.

According to Allyson Longueira, the editor of the News Guard, however, "We didn't find out about the (Jan. 30) meeting until it had already been held," and only learned of it through a colleague who found reference to it online on Feb. 2. Furthermore, according to a Driftwood Library (Lincoln City) librarian, the only hard copy of the Navy EIS in the state was indeed sent to that library, but is to this date un-catalogued and unavailable to the public because it was sent undated, without any cover letter explaining its content or significance.

On Friday, two major impediments to FERC's plans emerged. First, the legality of FERC's permits for wave energy projects in Pacific coast waters was challenged by Fishermen Interested in Safe Hydrokinetics (FISH). The FISH Committee's "Motion to develop comprehensive plan and to deny or hold in abeyance preliminary permit application for the Green Wave Mendocino Project" asks that FERC develop a comprehensive plan for hydrokinetic energy development in the Pacific Ocean as required by the Federal Power Act, and that FERC delay or deny the Green Wave project until such a comprehensive plan is completed.

FERC, the FISH motion asserts, has been authorizing numerous hydrokinetic energy projects in the Pacific Ocean off California, Oregon, and Washington on an ad hoc basis without the comprehensive plan required by law. Such a plan would require FERC to 1) collect baseline environmental data and furnish it to the permittees; 2) include uniform study criteria and guidelines in preliminary permit articles; and 3) require permittees to conduct studies to provide data by which cumulative impacts of proposed projects can be assessed.

The FISH motion cites Ninth Circuit law holding that "the requirement for FERC to develop a comprehensive plan applies before the issuance of preliminary permits, and not just before licensing, if the ecological system is complex, and the proposed projects are numerous."

As of Monday, Feb. 9, some 35 parties have intervened in support of the FISH motion, including the Sierra Club, Pacific Coast Federation of Fishermen's Associations and the County of Mendocino and the City of Fort Bragg.

Late last week, Finavera, a Canadian developer who was granted the first wave energy license from FERC for the much-touted Makah Bay project off the Washington coast, surrendered its license for the project "due to the current economic climate and the restrictions on capital necessary to continue development of this early-stage experimental project." This was to be FERC's landmark project, "intended to demonstrate the economic and environmental benefits of wave energy conversion power plants near coastal communities."

*It appears FERC and the U.S. Navy have been demonstrably cavalier both in assuming power to decimate*

*our coastal waters and spending large amounts of taxpayer money to do so with little or no oversight. Alerting our legislators to these developments and demanding accountability are imperative, particularly in our current economic crisis.*

**Update:** Thanks to news alerts and phone calls, the Driftwood Library in Lincoln City has located the EIS and placed it in their reference section.

<http://www.dailykos.com/story/2009/2/10/122030/630/961/695678>

2/10/2009

<http://www.dailykos.com/story/2009/2/10/122030/630/961/695678>

2/10/2009

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Forum Name Oregon

Topic subject Navy Plan Would turn Oregon (and northern California) Coast Into Firing Range

Topic URL [http://www.democraticunderground.com/discuss/duboard.php?az=view\\_all&address=174x6605#6605](http://www.democraticunderground.com/discuss/duboard.php?az=view_all&address=174x6605#6605)

### 6605, Navy Plan Would turn Oregon (and northern California) Coast Into Firing Range

Posted by OregonBlue on Wed Feb-04-09 02:00 PM

Navy Plan Would turn Oregon Coast Into Firing Range

The Bush Administration will haunt this nation for many years. Among its most egregious and devious legacies was a 2007 proposal to expand US Navy control over territorial waters beyond Puget Sound in Washington to include the entire coast of Oregon as well as part of northern California. This plan was effectively concealed from public view to the extent that to this day very few Oregonians know about it, much less the rest of the country. And because no one knew about it, no objections were raised and the plan is well on the way to execution.

As the Bush administration packed up to depart this vale of tears, the Navy rushed its 700-plus page draft environmental impact statement into print. **The EIS, predictably, concluded that its missiles, bombs, guns, sonar and other explosive operations would have no significant impact on marine mammals, birds, or fish and no significant impact on humans along the Oregon coast.**

In July 2007, the Navy published notice in the Federal Register of its intent to prepare an environmental impact statement (EIS) on its proposal to expand its Puget Sound activities down the coastline to northern California. During its activities in these waters the Navy could prohibit entry into its training or exercise area. The excuse for preempting commercial fishing, tourism, surfing, sports fishing and boating over the entire Pacific Northwest coastline is - you guessed it - **the old Bush juggernaut, national security.**

The Navy published its notice in five Washington newspapers, including the state-wide Seattle Times, but **in only a single small-town weekly paper from Lincoln City, in north coastal Oregon, and a small California paper from Eureka.**

[http://planetwaves.net/pagetwo/2009/02/02/navy-plan-tur ... /](http://planetwaves.net/pagetwo/2009/02/02/navy-plan-tur.../)

Navy Plans to Take Over Oregon Coast Airspace for Military Operations  
Letter to the Salem-News.com Editor by Marie Gargano

The Navy needs to rethink and abandon large parts of this entire proposal. The potential effects of new and increased military activity off the coast of Oregon could result in a general degradation of the environment, be fatal to wildlife and detrimental to the human quality of life.

(DEPOE BAY, Ore.) - I went to the US Navy's hearing last Friday night in Newport. What an "eye opener"!!!!

I was told by one of the Navy's representatives that the Navy wants to take over the two training areas currently used by the Oregon Air National Guard. This includes the entire coastal air space and coastal waters of Oregon.

[http://www.democraticunderground.com/discuss/duboard.php?az=printer\\_friendly&forum=...](http://www.democraticunderground.com/discuss/duboard.php?az=printer_friendly&forum=...) 2/4/2009

The hearing was part of their "public outreach"; strangely only one hearing in the entire state of Oregon. I was told the Navy published a small notification of the hearing in a Lincoln County newspaper and no other newspaper in Oregon.

[http://www.salem-news.com/articles/february022009/navy\\_ ...](http://www.salem-news.com/articles/february022009/navy_...)

Please note that the notice for input on the environmental impact was published in the WEEKLY Lincoln City newspaper. Lincoln city has a population of **7,900**. This was a small notice and several pages into the newspaper.

The notice of the hearing on the plan itself was published in the WEEKLY Newport newspaper. Also small print, also not on the front page. Population of Newport is **10,400**.

This was never discussed in the Oregonian, Portland's paper. No notice was given in any major paper or even in a DAILY paper.

We are being given until February 11 to give input on this plan and **conveniently, the Navy's comment link is NOT WORKING.**

Please contact your Oregon and California Senators and Congressmen and let them know that this has to be stopped. The citizen's of these states have to be given notice and be involved in these decisions that could have grave consequences for our marine life and fishing/tourist industries.

[http://www.visi.com/juan/congress /](http://www.visi.com/juan/congress/)

Congressional toll-free service at 866-544-7573

Contact Oregon Governor Kulingoski at 503-378-4582

Contact both Arnold and Maria at <http://gov.ca.gov/>

[http://www.democraticunderground.com/discuss/duboard.php?az=printer\\_friendly&forum=...](http://www.democraticunderground.com/discuss/duboard.php?az=printer_friendly&forum=...) 2/4/2009

### UPDATED: Navy Plan to Turn Pacific Coast into Target Range Has Competition-the Fed

by Planet Waves

Thu Feb 05, 2009 at 10:54:46 PM PST

This article by Carol Van Strum appeared as "Navy Coup Update - Navy v. Fed", and originated at Planet Waves.

As we have reported this week, the Navy has made a proposal to use the Pacific Northwest coastline as a target practice range, and has embarked on a suspiciously under-publicized public review process that was scarcely advertised and as anticipated, largely unnoticed. Now it seems as through the US Navy isn't the only agency involved in making what amounts to be a furtive land grab off the Pacific Northwest coast. Joining in what appears to be a territorial struggle between two large federal agencies, the Federal Energy Regulatory Commission (FERC) is making a play to establish their own distinguishing and environmentally-questionable mark on the area.

Planet Waves's diary :: ::

In a classic case of one hand not knowing what the other is doing, the FERC has issued a preliminary permit for installation of 200 to 400 wave energy buoys off the coast of Newport, Oregon. The buoys would be placed within the area designated by the US Navy for bombing and gunnery practice, experimental weapons testing, sonar experiments, unmanned drone aircraft tests, undersea minefield exercises and other explosive activities. FERC's permit has stirred up "a hornet's nest" both in southern Oregon, where residents of Coos Bay expected the installations to be placed, and in Newport, where fishermen as well as the county district attorney complained of being left out of the loop in the decision.

According to The Coos Bay World, the permit "also calls into question FERC's intentions of adhering to a memorandum of understanding previously negotiated with Oregon to give the state greater siting power over wave energy projects in the territorial sea."

Both FERC and the US Department of Interior's Minerals Management Service, The Coos Bay World notes, "have claimed the area outside of Oregon's territorial sea, beyond three nautical miles." During the last year, while FERC, the US Department of the Interior, coastal fishermen and the state of Oregon quibbled over control of coastal waters, the US Navy quietly slipped under the radar and planted its own flag -- backed with the best weapons our tax money can buy.

The Navy's Northwest Range Complex Environmental Impact Statement [EIS] makes abundantly clear that the Navy's bombing range plans trump all other claims.

The Navy provided public notice to the people of Oregon with a single press release to a small-town weekly paper on the north coast; held only one -- grossly unpublicized -- public meeting on the EIS for the entire state; and thoughtfully provided only a single hard copy of its EIS for the entire state to read, placing it in the same coastal town library.

Adding exquisite insult to injury, the Navy website, which supposedly provides public access to its EIS on-line, has been inoperable more than 50% of the comment period, and to this day frequently rejects comments submitted by e-mail.)

The resulting free-for-all among federal agencies, the state of Oregon and the US Navy might be entertaining to watch, but those who will suffer the aftermath -- coastal fishermen, the tourist trade, local residents, businesses, whales, birds, crabs and other creatures -- will scarcely be amused.

Already their interests have been lost in the fray. The fact that the Portland Oregonian, the only state-wide newspaper, published no story on the Navy's proposal until five days after the only public meeting held in the state is testimony both to the Navy's successful suppression of its intent, and to the media's complicity in keeping the public as ill-informed as possible. **The last day for public comments to be received on the Navy's Environmental Impact Statement is Feb. 11, 2009.**

This could definitely be a territorial war, and the state and especially the people and wildlife are simply collateral damage and the feds don't give a shit. Where's it heading? We're not sure yet. But if enough people raise the roof, it should go to the top -- governors and congress people pressuring the president and the military and FERC. **The citizens of the states involved have a right to know what's going on with their coastline.**

At this moment, we are working on contacts at FERC.

As for the Navy, people can call Sheila Murray, Environmental Public Affairs Officer, Commander Navy Region Northwest: phone 360-396-4981

cell 360-340-5398  
fax 360-396-7127

emailto: sheila.murray@navy.mil

Keep a record of every call, e-mail, fax, etc.

And call every congressperson, senator, governor and local officials they can think of. Nonstop. This is in addition to submitting comments on the EIS, (we have posted a link to the comment page on our previous articles). And if as keeps happening people can't access the EIS website or their comments are refused on-line, make a record of that, without fail.

Here are numbers to start with:

OREGON CONGRESSIONAL REPRESENTATIVES:

Senator Ron Wyden (D- OR) (ph)202-224-5244 (fax)202-228-2717 [http://wyden.senate.gov/...](http://wyden.senate.gov/)

Senator Jeff Merkley (D- OR) (ph)202-224-3753 (fax)202-228-3997 [http://merkley.senate.gov/...](http://merkley.senate.gov/)

Representative David Wu (D - 01) (ph)202-225-0855 (fax)202-225-9497 [http://www.house.gov/...](http://www.house.gov/)

Representative Earl Blumenauer (D - 03) (ph)202-225-4811 (fax)202-225-8941

[http://blumenauer.house.gov/...](http://blumenauer.house.gov/)

**Representative Peter A. DeFazio (D - 04) (ph)202-225-6416 (fax)202-225-0032**

<http://www.house.gov/formdefazio/contact.html>

Representative Kurt Schrader (D - 05) (ph)202-225-5711 (fax)202-225-5699

[https://forms.house.gov/...](https://forms.house.gov/)

US SENATE (KEY COMMITTEES)

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

Senator Barbara Boxer, Chair (202)224-8832

ARMED SERVICES COMMITTEE

Senator Carl Levin, Chair (202)224-3871

ENERGY AND NATURAL RESOURCES

Senator Jeff Bingman, Chair (202)224-4971

**UPDATE: Here's contact info for the Governor's Office:**

MAIL

Governor Kulongoski  
160 State Capitol  
900 Court Street  
Salem, Oregon 97301-4047

PHONE

Governor's Citizens' Representative Message Line 503.378.4582

FAX 503.378.6827

Here's the link to send messages by e-mail to the Governor's Office.

When you call, be calm, clear and concise with the problem and with your concern. Get Congress to halt the process of approval of the Environmental Impact Statement until there is more time and better access for the public to review the plans.

Let them know the process so far has limited public participation and concerns not only the environment, but the economy and livelihood of the residents of the state. There has to be a way to prevent the Fed and the military from ramming this plan down the public's throat.

**The Register-Guard**<http://www.registerguard.com/>**Coastal residents, legislators want more time to weigh in on Navy testing****BY WINSTON ROSS  
THE REGISTER-GUARD**

FLORENCE — Submarines can sink fishing boats, hooking into the nets of midwater trawl boats and rolling the vessels like an alligator in a swamp. Lincoln County Commissioner Terry Thompson said he knows of at least eight boats downed by subs off the West Coast in the decades he's been a fisherman. He has lost five friends in such incidents, he said.

"One boat hooked into a submarine and got dragged sideways, at 6 knots," Thompson said. "The crew was sitting at the back deck and the captain was at the wheelhouse. Only one crewman lived to tell the story."

So when Thompson found out recently that the Navy was planning on expanding the training it does in a 126,000-square-mile swath of the Pacific Ocean between Washington and California, he wanted to make sure the military has Oregon's fishing fleet in mind.

Oregon's congressional delegation shares his concern. Democratic Rep. Peter DeFazio said that, among other things, whales will be affected, even killed.

Naval officials, however, said the expanded training is needed because of international events that have put the military on a higher alert level.

Many people may not know the Navy trains out there in the first place, even though it's been going on since the early 1900s and includes exploding bombs underwater, firing missiles and 5-inch naval guns, and doing high-intensity sonar testing.

When the government announced a public comment period about expanding the training area, it did so only in the Newport News-Times and Lincoln City News Guard newspapers.

By the time most coast residents, scientists and activists caught wind of the military's one public meeting on the topic late last month, there were only a few more days left to weigh in.

"This came upon us like a winter squall," said Onno Husing, executive director of the Oregon Coastal Zone Management Agency. "Many, many people were caught flat-footed. The Navy needs to do a better job of engaging people on an issue of this magnitude if they expect to gain the public's confidence."

On Monday, five of the six members of Oregon's congressional delegation wrote to Navy Secretary Donald Winter to ask that he extend the public comment deadline on the military's 1,068-page draft Environmental Impact Statement, from the current Feb. 18 to April 11.

Read more in Tuesday's Register-Guard.

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- >
- > According to a Friday press release encouraging people to attend the hearings, Navy officials say they need to make the changes to keep up with technology and new national security challenges.
- >
- > "Specifically, the Navy proposes to increase the number of training activities of the same type currently being conducted; operate air target services for locally-based aircraft and vessels; operate surface target services for locally-based aircraft and vessels; develop an additional land-based electronic combat threat signal emitter along the Washington coast for offshore use by aircraft and vessels; develop a small-scale underwater training minefield for submarines; and use a portable undersea tracking range for anti-submarine training."
- > ###

Scott -Charlotte Mills  
 480 Buck Creek Road  
 Tidewater OR 97390  
 (541) 528-7300

Member: Oregon Shores Conservation Coalition  
 Our Ocean and Marine Reserves Action Team

Web ID - [www.nwtrangecomplexes.com/Documents.aspx](http://www.nwtrangecomplexes.com/Documents.aspx)

1/24/2009

SITE OF PROPOSED MARINE RESERVE  
 IN MILLS ACTION TEAM

Marine Reserves - Associated Land Data

Draft



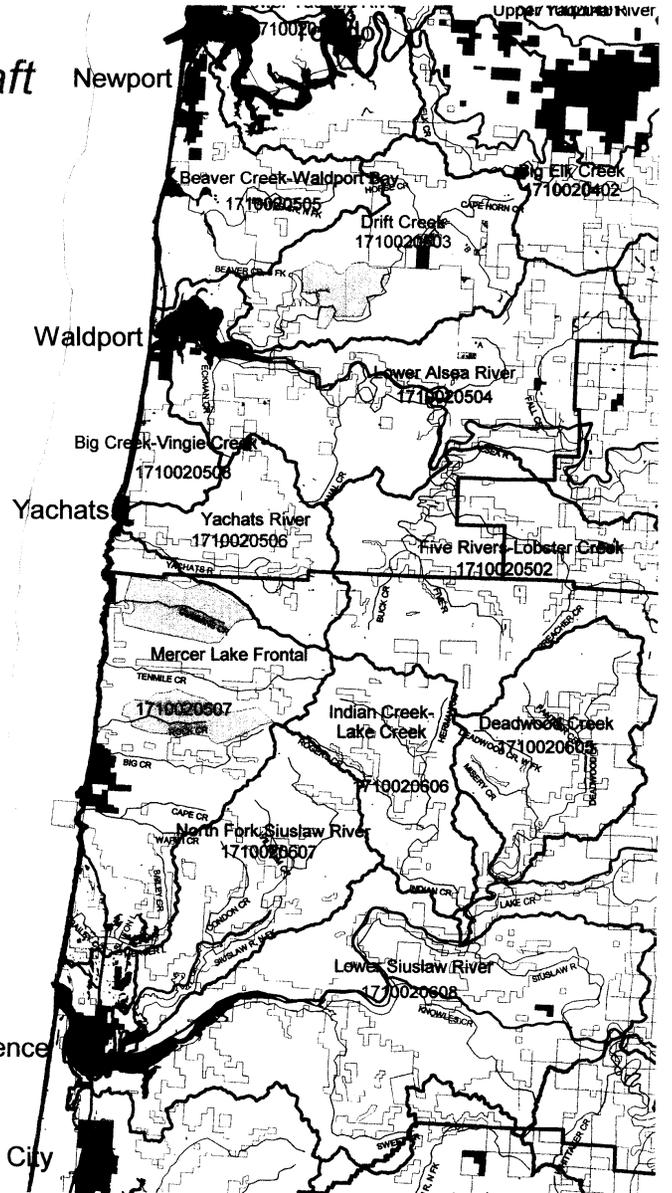
Legend

- 3 Mile Boundary
- Rivers
- Highways
- Water Bodies
- Str Field Watersheds
- County Boundary
- City Limits
- Wilderness Areas
- BLW
- County Lands
- Private
- State Lands
- JSFS National Forest

Scale  
 1:6322

3 Miles

prepared by Mark Tilton, Florence  
 mtv033@oregonfast.net  
 May 2007





## NAVY HEARING Continued from Page A1

minefield for submarines; and use a portable undersea tracking range for anti-submarine training. According to Navy officials, the range enhancements are vital to upgrading and modernizing the NWTRC to make sure they meet and exceed critical fleet requirements.

The NWTRC extends 250 nautical miles (about 288 miles) into the Pacific Ocean from the shoreline, encompassing more than 126,000 square nautical miles of ocean. It also covers more than 34,000 square miles of airspace, and 875 acres of land. Most of the range lies off the Washington coast and Puget Sound, which is home to the nation's third largest concentration of Navy forces.

But a large section of the range lies off the Oregon coast beyond the 12-mile territorial sea line, and - despite assurances from naval officials that the proposed sea change in activity will go largely unnoticed here - local officials and others are concerned about the potential impacts to fisheries and marine life.

That, in essence, is what the Jan. 30 hearing at HMSC focused on.

### Public outreach

The National Environmental Policy Act (NEPA) of 1969 requires federal agencies to examine the individual and cumulative (or additive) environmental effects of their activities, which means developing an environmental impact statement (EIS) to provide an assessment of those potential effects.

Toward that end, the Navy launched a public process that began with a notice of intent filed in the July 31, 2007 edition of the Federal Register, followed by a "scoping process" that included five open houses and public hearings, including one in Oregon - held Sept. 13, 2007 at the Spouting Horn Restaurant in Depoe Bay. The scoping process ended Sept. 29, 2007.

Project information and related environmental documents were sent to five public libraries in Washington, one in northern

California, and one in Oregon - Driftwood Public Library in Lincoln City.

From there, Navy officials developed a draft EIS, which "went public" at the end of December 2008, again with initial notice in the Federal Register, launching a 45-day public comment period scheduled to end Feb. 11. Five public hearings were scheduled - three in Washington (Jan. 27, 28, and 29), one in northern California (Feb. 2), and the Jan. 30 session at HMSC.

An open house session began at 5 p.m., followed by the public hearing from 7 p.m. to 8:30 p.m.

### The proposal

Navy officials - among them Commander Matthew Miller, executive officer of the Naval Air Station on Whidbey Island and project manager John Moser - outlined the proposal and the preferred alternative, which they said is "designed to meet current and near-term training requirements."

They reviewed potential effects, both offshore and inshore, on marine life, resources, protection, and research; cultural resources; air and marine traffic; socioeconomic; and public safety. They predicted minimal behavioral and physiological effects on marine mammals and fish from sonar and underwater sound of explosives, along with minimal mortality to marine life in the immediate vicinity of any explosives. They said underwater detonations would drop from 60 to four annual training events with the preferred alternative, greatly lessening the potential detrimental effects on critical habitats.

In fact, the draft EIS predicts minimal, if any, significant detrimental effects overall.

While the potential exists to economically impact commercial fishing from the use of the portable undersea tracking minefield, the EIS predicts "no socioeconomic effects" on commercial shipping and fishing interests, sport fishing and diving interests, and

tourism activities.

Several who spoke at the hearing disagreed with those assessments.

"The Newport offshore fishery is very important," Terry Obteshka, a Newport City Council member, told them, referring specifically to the salmon and tuna fisheries and the "adverse effect" sonar and other underwater noise could have on them. He asked then to consider "a taking provision for the fisheries" if Navy activities should detrimentally affect them. He also referred to marine reserves, wave energy, and other pending activities each clamoring for a piece of the ocean, and asked them to "reconsider the no change option."

David Jincks, representing the Midwater Trawlers and Pacific Whiting cooperatives, noted the "economic engine" the trawling and whiting fisheries provide for the Oregon coast by "a wide-ranging fleet" of vessels fishing in waters anywhere from 40 to 800 fathoms deep. He commended them for working cooperatively with the National Marine Fisheries Service (NMFS), but told them that "NMFS doesn't always work with us very well."

Because "there is a tremendous amount of fishing that goes on out here all the time" and the changes they are considering "could have a very large impact, but we don't know yet how extensive it could be," he asked for "more coordination with the fishing industry" to get feedback from the fishermen "who actually use the ocean."

Lincoln County Commissioner Terry Thompson, who noted he had logged more than 4,200 days at sea as a commercial fisherman, talked about the loss of eight vessels and 15 crew members he knew "who have died due to submarine activities." A submarine caught in a trawl net is the only thing he said could explain how a 75-foot vessel could be dragged sideways at eight knots.

Thompson noted the \$100-million economic impact from fishing "just in Lincoln County," and said the potential for a minefield that could keep fishermen out of prime fishing



**The U.S. Navy's Northwest Training Range Complex features areas off the coasts of Washington, Oregon, and northern California where the Navy conducts land, air, and sea training activities, including the use of sonar and live target practice.**

Staff graphic, source: U.S. Navy

grounds "bothers me." He also cited the shells and other debris the Navy "leaves behind" after training exercises. "Our fishing industry has done a lot to try to clean up the bottom of the ocean, and for the Navy to leave debris on the bottom is not good," he said.

"It looks like the Navy doesn't have a very good understanding of the fishing industry," Thompson concluded, noting part of the EIS that fails to make a distinction between rollers and trawlers. He suggested they "get with some commercial fishermen" and then go back and rework the EIS section about the fishing industry.

Bruce Mate, who heads up OSU's Marine Mammal Institute, said some aspects of the EIS would require periodic re-assessment, a before-and-after

look, as it were.

"Risk is a condition of a species, a time, and a place," Mate noted. "We have very close access to deep water here. We've had stranding and beached whales along the coast for years." He urged them to seek "more quantification" that could lead to more effective assessment before proceeding.

### Inadequate notification?

Everyone who spoke at the HMSC gathering said they had received inadequate notification of the hearing, noting that they heard about it, at best, two days prior, at worst an hour before the open house started. All requested at least a 30-day extension of the comment period, and, at best, another public hearing fol-

lowed by an extended comment period.

Sheila Murray, the Navy's environmental public affairs officer, and Kimberly Kler, the Navy's environmental planner for the project, said they advertised and sent out press releases prior to the hearing.

News-Times records show the Navy submitted an advertisement five times prior to the hearing: first on Dec. 31, 2008, and subsequently on Jan. 16, 21, 23, and 28. A few folks who saw the ad said they skipped past it. Others missed it completely, and had to dig back through past issues to find it.

The News-Times never received a press release.

Murray also provided a distribution list of public officials, government agencies, Native American tribes and nations, organizations, and individuals "who attended the public scoping meetings, provided comments during the scoping process, or have been identified by the Navy" for inclusion on the list. While it does include federal and state regulatory agencies, Gov. Ted Kulongoski, Oregon's federal legislators, and some state legislators, the only local agency listed is the Depoe Bay Nearshore Action Team, and the only local individuals were Jack Brown and Loren Goddard of Depoe Bay.

State Coastal Caucus members, the county commissioners, Newport city officials, agency leaders, and others say they only heard of the session through last minute word-of-mouth contact.

Charlotte Mills of Tidewater told them they failed to reach "thousands of people along the coast." She and others - as Mate put it - "hope we see you again" to revisit the matter.

The final EIS is scheduled for August 2009, followed by a 30-day public review period, with a record of decision expected in September. To find out more, go to [www.NWTRangeComplex-EIS.com](http://www.NWTRangeComplex-EIS.com).

*Terry Dillman is the assistant editor of the News-Times. Contact him at (541) 265-8571, ext. 225, or [terrydillman@newspost-times.com](mailto:terrydillman@newspost-times.com).*

## Dramatic expansion of dead zones in the oceans

January 25th, 2009 in Space & Earth science / Earth Sciences

Unchecked global warming would leave ocean dwellers gasping for breath. Dead zones are low-oxygen areas in the ocean where higher life forms such as fish, crabs and clams are not able to live. In shallow coastal regions, these zones can be caused by runoff of excess fertilizers from farming. A team of Danish researchers have now shown that unchecked global warming would lead to a dramatic expansion of low-oxygen areas zones in the global ocean by a factor of 10 or more.

Whereas some coastal dead zones could be recovered by control of fertilizer usage, expanded low-oxygen areas caused by global warming will remain for thousands of years to come, adversely affecting fisheries and ocean ecosystems far into the future. The findings are reported in a paper 'Long-term ocean oxygen depletion in response to carbon dioxide emissions from fossil fuels' published on-line in the scientific journal *Nature Geoscience*.

Professor Gary Shaffer of the Niels Bohr Institute, University of Copenhagen, who is the leader of the research team at the Danish Center for Earth System Science (DCESS), explains that "such expansion would lead to increased frequency and severity of fish and shellfish mortality events, for example off the west coasts of the continents like off Oregon and Chile".

### Large extinction events

He adds that "if, as in many climate model simulations, the overturning circulation of the ocean would greatly weaken in response to global warming, these oxygen minimum zones would expand much more still and invade the deep ocean." Extreme events of ocean oxygen depletion leading to anoxia are thought to be prime candidates for explaining some of the large extinction events in Earth history including the largest such event at the end of the Permian 250 million years ago.

### Series of changes

Furthermore, as suboxic zones expand, essential nutrients are stripped from the ocean by the process of denitrification. This in turn would shift biological production in the lighted surface layers of the ocean toward plankton species that are able to fix free dissolved nitrogen. This would then lead to large, unpredictable changes in ocean ecosystem structure and productivity, on top of other large unpredictable changes to be expected from ocean acidification, the other great oceanic consequence of high atmospheric carbon dioxide concentrations from fossil fuel burning.

Professor Shaffer warns that as a result, "the future of the ocean as a large food reserve would be more uncertain. Reduced fossil fuel emissions are needed over the next few generations to limit ongoing ocean oxygen depletion and acidification and their long-term adverse effects".

Paper: *Nature Geoscience* Advanced Online Publication:  
<http://www.nature.com/ngeo/journal/vaop/ncurrent/index.html>

Source: University of Copenhagen

<http://www.physorg.com/print152112555.html>

1/26/2009

Blazers winning streak comes to an end with 104-99 defeat by Dallas

What's behind the streak and other

Who Show Extra: From the latest gas fibers to the hottest muscle cars INSIDE

# The Oregonian

SUNRISE EDITION

THURSDAY  
BRUARY 5, 2009

WINNER OF THE 2007 PULITZER PRIZE FOR BREAKING NEWS PORTLAND, OREGO  
ASKING NEWS AT OREGONLIVE.COM

rooter as ID'd a threat 2000

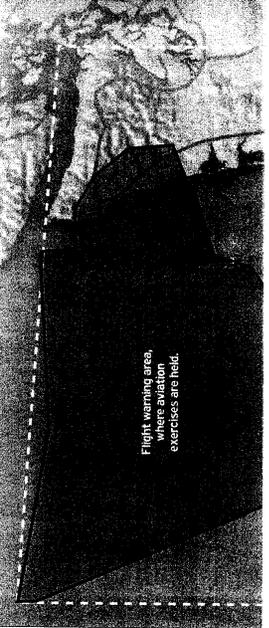
intown killings | S. Ayala's intervention ram ended after his school graduation  
By MAXINE BERNSTEIN THE OREGONIAN  
man who shot nine people in own Portland last month re-intensive counselling while in school from a multiagency fire 1996 on High School shooting to y and treat troubles  
S. Ayala was diagnosed with

## Navy launches tug of war

Some Oregon groups fear a proposed increase in naval exercises could harm marine life



An F-18E Super Hornet prepares to launch from the aircraft carrier USS Abraham Lincoln. Sailors from the carrier are training in a rescue off the Northwest coast.



Flight warning area, where aviation exercises are held.

...and was hospitalized with a suicide attempt, she said Wednesday. She received immediate intervention and tutoring from a number of educators, mental health workers and juvenile law enforcement officials, who continued with Ayala when he returned to high school after placement at a Portland mental facility. At care ended at graduation, detectives said Ayala did not see **THREAT**, Page A7

...ss delays digital TV to Portland's stations 3 drop analog sites after Feb. 17. | **A4**

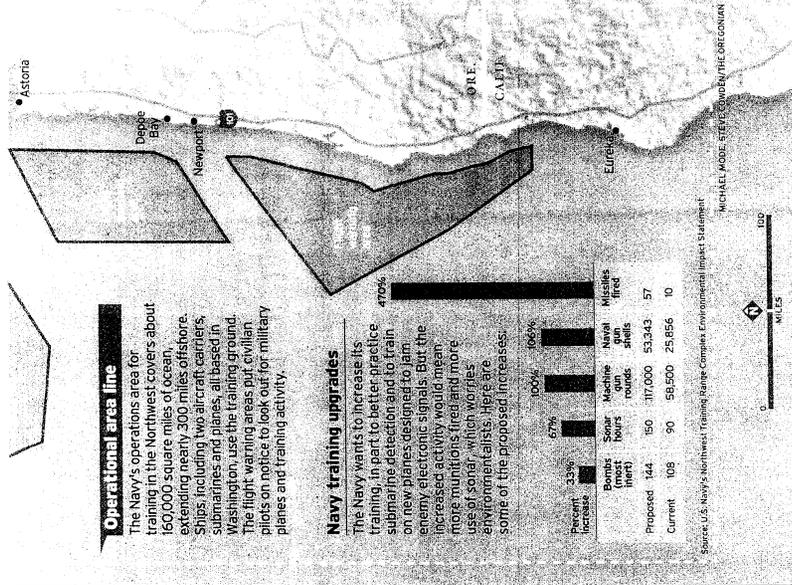
**WEATHER**

**Mostly cloudy**  
High: **49**  
Low: **38**

Complete weather, see **C8**

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70 pages



**Y**ou may not realize it, but the Navy has been conducting warfare training exercises off the coast of Oregon, Washington and Northern California for decades, firing missiles and machine guns, dropping bombs and practicing crucial sonar detection of Soviet submarines. The Northwest region wants to expand these operations, including adding a rotary minefield-avoidance training course, scheduling hundreds more training flights and warfare simulations over land and sea, and increasing the use of sonar — a potential threat to endangered and threatened whales and other marine mammals.

Environmental groups, fishermen and some politicians along Oregon's coast are wary. They also say the military sprang the 1,000-page environmental review of its training plan with little notice.

The Navy held one Oregon meeting on the draft proposal last week, and comments are due Wednesday. But activists wait a 30-day extension.

For the whole state of Oregon, there was one 90-day "boycott," said Marie Gargano, a Deception Bay retiree active in environmental issues. "It just looks like a pro forma effort to meet the requirements of the law."



WALTER M. WATMAN/US NAVY  
The aircraft carrier **USS John C. Stennis** operates in Pacific Northwest waters as part of the Navy's training exercises. The Navy wants to increase warfare maneuvers in the area.

Please see **TRAINING**, Page A6

nan of contradictions | I aika hanaa

**NORTHWEST**



ANTHONY MADRIVAL/US NAVY

low the nuclear-powered ballistic missile submarine **USS Alabama** through Puget Sound in 2006, with **Mount Rainier** in the background. Submarine exercises ease under the Navy's plan for more training off the Pacific Northwest coast.

**Study says meth abuse damage at \$23.4 billion**

By **ERIK ESKOLM**  
NEW YORK TIMES NEWS SERVICE

In the first effort to calculate the national price of methamphetamine abuse, a new study says the drug's addiction imposed costs of \$23.4 billion in 2005.

Although the authors, from the RAND Corp. in Santa Monica, Calif., caution that many impacts were difficult to quantify, their study suggests that methamphetamine takes an economic toll nearly as great as heroin and possibly more.

Methamphetamine was named the primary cause of some 900 deaths in 2005, and the report estimates that premature mortality alone cost \$4 billion, its abuse has spread from Hawaii to the West Coast of the West and South since the 1980s, and East. In the process, it has wreaked havoc on addicts' physical and mental health and on their families.

Federal surveys suggest that the share of Americans using the drug in a given year has stabilized at about 1 percent of the population over age 12, which is

# Training: Plan won't be harmful, draft statement says

Continued from Page One

Sheila Murray, environmental public affairs officer for the Navy's Northwest region, said the Navy's training plan would impact numerous politicians and state regulators.

"We do want public comment," Murray said. "That's how we're able to have this work. We're not out to hide anything."

The Navy's environmental review, prompted by pressure from environmental groups, is its most detailed public examination of Northwest training exercises since they began more than 100 years ago. The draft environmental impact statement, released Dec. 29, concludes that expanded training won't harm marine life or the public.

The Northwest fleet — including two aircraft carriers, 30

support vessels and 119 aircraft — comes from five installations in Washington state.

Expanded training is crucial, the Navy says, particularly practicing submarine detection and electronic jamming of enemy signals on the fly.

The service also plans to increase more-traditional training. For example, missiles fired would jump from 10 to 57 a year, the review says, and the number of gun shells fired from ships would more than double, topping 50,000 annually.

That may sound like a lot, but the Navy review says it's minimal given the vast expanse of the ocean-training occurs in and already going on, from fishing to shipping to polluted water runoff from land.

Most of the flights will take place at high altitude or far from shore, Murray said, and the nations firing will almost always be in remote areas. "I hear now what people are going to continue to see and hear," she said.

But Zak Smith, Council secretary, is in charge of the military's approval. Once the Navy wins approval of its training plan from environmental regulators, it won't have to air the plan again,

barring significant changes, he said.

This is a one-time opportunity for people to let the Navy know what they think," Smith said.

The biggest environmental concern is the Navy's use of mid-frequency active sonar, which would increase under the plan.

Environmental groups are suing over such sonar use, arguing that it damages whales and other marine mammals that use sound to communicate and navigate.

The training area includes



JAMES R. EVANS/US NAVY  
A pair of HH-60H Seahawks approach the aircraft carrier USS Abraham Lincoln in the spring.

waters used by nine marine mammal species listed as threatened or endangered, including seven whales. Of particular concern are Puget Sound's southern resident killer whales, whose population has dwindled to about 70.

In its review, the Navy said sonar exposure contributed to five "mass stranding events" worldwide since 1996, with whales showing up dead in numbers on the beach.

The review says the increased training would boost the number of marine mammals exposed from about 110,000 a year

to nearly 130,000. But it predicts little damage, in part because the Navy limits sonar use when mammals are spotted near ships and submarines.

Sonar is crucial for submarine detection, the report said. Forty nations operate modern submarines, it said, including Iran and North Korea.

But Bruce Mae, director of the Marine Mammal Program at Oregon State University, says he's not sure enough information on location and timing of sonar use to assess the risk.

The Navy rejected the idea of seasonal shutdowns or avoiding key habitat areas.

For fishermen, the concerns are more economic, said David Jinks of Newport, president of the Midwater Trawlers Cooperative.

They range from munitions debris tearing up nets to longer closures of the large swaths of ocean.

"I'd just like the Navy to come back and answer some questions," Jinks said. To see the draft report and submit comments, go to [www.nwtrangecomplex.com](http://www.nwtrangecomplex.com).

Scott Lamm: 503-294-7857;  
s.lamm@navy.mil  
Lori Tobias: 541-265-9594;  
lortobias@navy.mil

About 400,000 Americans are believed to be addicted to methamphetamine, but a rising share are smoking it rather than taking it orally or snorting it. Smoking brings a faster, jolting high, quicker addiction and more ill effects.

The study's major innovation was its effort to quantify the effects of addiction on the quality of life, said Dr. Wilson. A division director at the National Institute on Drug Abuse, the study looked at how factors such as poor health, anxiety and paranoia shrink the addict's horizons and pleasure over time. Such estimates have been made for heart and other major diseases but not for illegal drugs, Comp-ton said.

These intangibles proved to be the largest costs, with an estimated price of \$12.6 billion. Other major costs included \$4.2 billion in crime and criminal justice, \$94 million in lost wages, \$87 million in lost productivity, \$48 million for drug treatment, \$351 million for health care and \$61 million for injuries and deaths at exploding meth labs and for cleaning up the toxic wastes they produce.

The study is part of a RAND project to evaluate the costs of drug addiction.

## United States Navy Public Hearing Comment Form Northwest Training Range Complex Environmental Impact Statement / Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Depositing this form at the Comment Table before you leave tonight.
- 2) Submitting your comments via the project Web site at [www.NWTRRangeComplexEIS.com](http://www.NWTRRangeComplexEIS.com)
- 3) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: Jeremy Mills

Organization/Affiliation: \_\_\_\_\_

Address: 1616 F Street Apartment A

City, State, Zip Code: Eureka CA 95501

Comments: The majority of the activities are in international waters - what are the requirements for consultation with international organizations? Do international organizations such as the International Whaling Commission concur with the analysis in the EIS/OEIS?

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Visit [www.NWTRRangeComplexEIS.com](http://www.NWTRRangeComplexEIS.com) for project information.



United States Department of the Interior

MINERALS MANAGEMENT SERVICE  
Pacific OCS Region  
770 Paseo Camarillo  
Camarillo, California 93010-6064



February 12, 2009

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
Attn: Mrs. Kimberly Kler

Re: Northwest Training Range Complex  
Environmental Impact Statement/Overseas  
Environmental Impact Statement

Dear Mrs. Kler:

The U.S. Minerals Management Service (MMS), Pacific Outer Continental Shelf Region (POCSR) has reviewed the Northwest Training Range Complex Environmental Impact Statement/Overseas Environmental Impact Statement (NWTRC EIS/OEIS) and submits the following general comment.

The NWTRC encompasses offshore areas that have known oil and gas resources and subsea hydrates and renewable energy resources that could be developed to meet our Nation's future energy needs. Although there are no plans to move forward with leasing, exploration and development activities at this time, high energy prices may stimulate interest in developing these resources in the future. Offshore California, the military and the oil and gas industry have been sharing use of the Point Mugu Sea Range for more than 30 years. These operations have been able to successfully co-exist due, in large part, to the effective policies and procedures the MMS and the military have jointly implemented to minimize the potential for space-use conflicts in military warning areas. In the event future energy development projects are proposed on the Federal offshore lands within the NWTRC, the MMS is looking forward to working with the U.S. Navy, U.S. Air Force and other defense organizations to build on the positive working relationships we have already established.

Thank you for the opportunity to comment on the NWTRC EIS/OEIS. We look forward to working with the Navy on issues of mutual concern in the future. Please contact Mark Eckenrode of my staff at (805) 389-7827 or at [Mark.Eckenrode@mms.gov](mailto:Mark.Eckenrode@mms.gov) if you have any questions regarding these comments.

Sincerely,

Ellen Aronson  
Regional Manager  
Minerals Management Service  
Pacific OCS Region



March 8, 2009

Mrs. Kimberly Kler  
NWTRC EIS/OEIS  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203,  
Silverdale, WA 98315-1101

Re: Northwest Training Range Complex Draft EIS:

It is unconscionable in the 21st century for the Navy to think that it has the right against monumental public outcry to continue to seriously endanger many cetacean species inhabiting the world's oceans. The Navy has no right to harass, injure, or kill thousands of whales and dolphins along the Oregon Coast and other critical places in the world's oceans. The Navy does not have the right to further destroy ocean habitat by these war-training maneuvers utilizing spent uranium and titanium materials and dropping bombs.

Regarding mid-frequency active sonar -- without essential safeguards -- this is known to cause disorientation, hearing loss, stranding and death in whales and dolphins. This is only one assault proposed on the marine mammals of the oceans.

The entire west coast, including the Oregon coast is in many places a marine sanctuary, including migratory routes for the gray whale. Whale watching, fishing are active industries on the Oregon coast and elsewhere on the west coast. This should have priority over the Navy's need to practice sonar at the risk of destroying these industries and disrupting irreparably the migratory routes of cetacean species such as the gray whale.

The Navy does NOT need to put marine mammals or our ocean habitats at risk in order to protect the American people. The horrific attack on the World Trade Center on 9/11/01 only shows that trying to just rely on high tech means for protection leaves us all very unprotected. The Navy can take common sense precautions, such as avoiding whale calving grounds, migration corridors, and critical habitat; thus safeguarding all cetacean species along the Oregon Coast and elsewhere now and in the future.

Further the comment period is hardly sufficient given that the Navy's principal mechanism for public information and input about the EIS, their website: ([www.nwtrangecomplexeis.com/EIS.aspx](http://www.nwtrangecomplexeis.com/EIS.aspx)), was seriously compromised between the Dec. 29, 08 inception of the EIS Public Response Period and Jan. 21. Attempts to make comments via the website were not allowed due to "abort issue" (Navy's term) from Dec 29 until Jan. 20. The website was not accessible whatsoever between Jan 15 and Jan 21. This represents a breach of process established by the Navy itself.

Finally why does the Navy continually think that it is OK to seriously jeopardize ocean habitats and that this will not, for some strange reason, jeopardize the health of our country, its people, ocean life, and other habitats throughout the oceans of this world? It is time to stop escalating a wartime mentality and start saving our oceans and the biosphere we all share.

Sincerely,

  
Nancy Morris "Concerned Citizens for Healthy Oceans"  
PO Box 60096  
Seattle, WA 98160  
206/533-6155

Susan Nagle  
PO Box 263  
Albion, CA 95410

Feb. 14, 2009

Naval Facilities Engineering Command, Northwest  
1101 Tautog Circle Suite 213  
Silverdale, WA, 98315  
Attn: Mrs. Kimberly Kier, NWTRC EIS

Dear US Navy,

I am extremely opposed to Naval Detonation and Sonar testing in our Northwest oceans. These kinds of tests have already been proven destructive to marine mammals and other ocean life. It is now time to protect our oceans. Without a healthy ocean we will not be able to live on this planet. No testing, detonating or polluting our oceans!

Thank you.

Susan L. Nagle  
Mother of Two



NATURAL RESOURCES DEFENSE COUNCIL

**By Overnight Delivery**

March 10, 2009

Kimberly Kler, Environmental Planner  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
Phone: (360) 396-0927

Re: Draft Environmental Impact Statement/ Overseas Environmental Impact Statement for the Northwest Training Range Complex

Dear Mrs. Kler:

On behalf of the Natural Resources Defense Council ("NRDC"), International Fund for Animal Welfare, The Humane Society of the United States, Animal Welfare Institute, International Ocean Noise Coalition, Ocean Mammal Institute, Friends of the Earth, Earthjustice, Whale and Dolphin Conservation Society, Cetacean Society International, People for Puget Sound, Friends of the San Juans, Preserve Our Islands, Dr. David Bain, Ph.D., Center for Biological Diversity, Oregon Shores Conservation Coalition, Willapa Hills Audubon Society, Conservation Northwest, Save Our Wild Salmon, Ocean Futures Society, and Jean-Michel Cousteau, and our millions of members and activists, thousands of whom reside in Washington, Oregon and California, I appreciate the opportunity to submit comments regarding the Navy's Draft Environmental Impact Statement/ Overseas Environmental Impact Statement ("DEIS") for the Northwest Training Range Complex ("NWTRC"). See 73 Fed. Reg. 79856 (Dec. 30, 2008). Please include these comments and attachments in the administrative record.<sup>1</sup>

At the outset we must note that this public comment period has been rife with problems. Initially given less than 45 days, the public's opportunity to comment was frustrated by numerous problems with the Navy's website, electronic comment portal and notice of

<sup>1</sup> We aware that comments may be submitted separately by government agencies, individual scientists, environmental organizations, and the public. All of these comments are hereby incorporated by reference. The comments that follow do not constitute a waiver of any factual or legal issue raised by any of these organizations or individuals and not specifically discussed herein.

Ms. Kimberly Kler

March 10, 2009

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public hearings. We received several reports from individuals who were unable to submit comments, unable to access information on the Navy's website and/or unaware of public hearings. The website itself was inoperable for much of the comment period, further impeding the public's ability to comment. In light of these difficulties and of the extensive range of activity proposed, NRDC requested an extension of the public comment period. In addition, the Congressional delegation from Oregon requested an extension of the public comment period until April 11, 2009 as well as additional hearings in Oregon. We commend the Navy for extending the public comment period until March 11, 2009 and adding a public hearing in Tillamook, Oregon, but also recognize that many people – particularly in Oregon – continue to be dissatisfied with the Navy's failure to provide additional hearings and adequate notification.

In addition, the DEIS makes repeated reference to a Biological Evaluation ("BE") that the Navy prepared to catalog the effects of its proposed alternatives on species listed as threatened or endangered under the Endangered Species Act. The BE was not included in the CD version of the DEIS and does not appear to be available on the Navy's website. As we discuss in more detail below, the potential effects of each of the alternatives on sensitive and listed species are one of the primary concerns associated with this proposal. The omission of the BE has severely curtailed the public's ability to meaningfully evaluate and comment upon the effects of the alternatives. We urge the Navy to publish the referenced biological assessment and extend the comment period to accept additional public comment on this key document.

We must also object to the Navy's piecemealing of expansion projects in the Pacific Northwest. On July 31, 2007, the U.S. Navy announced its intent to prepare an Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS) for expansion of its Northwest Training Range Complex. See 72 Fed. Reg. 41712 (July 31, 2007). Several of the undersigned organizations, including NRDC, objected to the Navy's attempt to improperly segment the NWTRC DEIS and the proposed NAVSEA NUWC Keyport Range Complex Extension project (73 Fed. Reg. 53002 (Sept. 12, 2008)) – which includes extending the Keyport Range, the Dabob Bay Range Complex, and the Quinalt Underwater Tracking Range – because these projects are connected to one another both geographically and operationally. The National Environmental Policy Act, 42 U.S.C. 4321 *et seq.*, prohibits the Navy from segmenting these types of connected actions in different analyses and requires consideration of the impacts of such connected actions together in one EIS that comprehensively considers environmental effects. 40 C.F.R. § 1508.25(a)(1) (ii), (iii); *id.* § 1502.4(a).

The proposed increase in training activities within the NWTRC include intensive, year-round exercises employing active sonar as well as a battery of other acoustic sources and explosives detonations. Over 122,440 square nautical miles, the range engulfs the waters off Washington, Oregon and northern California. The Navy's preferred alternative would dramatically increase the amount of training in the NWTRC, including "range enhancements" such as the development of an underwater training minefield, Portable Undersea Tracking Range, and air and surface target services.

The Navy's envisioned NWTRC expansion would pose significant risk to whales, fish, and other wildlife that depend on sound for breeding, feeding, navigating, and avoiding predators—in short, for their survival. Many of the exercises proposed would employ mid-frequency active sonar, which has been implicated in mass injuries and mortalities of whales around the globe.<sup>2</sup> The same technology is known to affect marine mammals in countless other ways, inducing panic responses, displacing animals, and disrupting crucial behavior such as foraging. The NWTRC expansion would also affect fisheries and essential fish habitat, damage hard-bottom habitat, and release a variety of hazardous materials – such as thousands of rounds of spent ammunition and unexploded ordnance containing chromium, chromium compounds, depleted uranium and other hazardous materials – into coastal waters.

The National Environmental Policy Act requires the Navy to employ rigorous standards of environmental review, including a full explanation of potential impacts, a comprehensive analysis of all reasonable alternatives, a fair and objective accounting of cumulative impacts, and a thorough description of measures to mitigate harm. Unfortunately, the DEIS released by the Navy falls far short of these standards.

The Navy's DEIS does not properly analyze the environmental impacts of the limited alternatives it has proposed. Its analysis also substantially understates the potential effects of sonar on marine wildlife. For instance, the Navy fails to acknowledge risks posed to a wide range of marine species – including highly endangered Southern Resident killer whales and other marine mammals – and impacts to the Olympic Coast National Marine Sanctuary from the activities listed above, or from actions necessary to support the proposed increase in training, such as increased risk of oil spills.

Further, it concludes that only one harbor seal would suffer serious injury or die during the many hours of proposed sonar training. The Navy reaches this conclusion by excluding relevant information adverse to its interests, using approaches and methods that are unacceptable to the scientific community and ignoring entire categories of impacts. As discussed in detail in Appendix C and the attached critique by Dr. David Bain, the Navy's assessment of acoustic impacts is highly problematic.

Moreover, the Navy's analysis entirely fails to account for cumulative impacts for the years of anticipated activity. The Navy merely recites a list of potential impacts without actually taking the next step of analyzing the effects of those impacts. The Navy's repeated platitude that any impacts are short-term in nature and thus would not combine to produce cumulative effects not only lacks scientific validity, but also grossly misapprehends the definition of cumulative impacts under NEPA. 40 C.F.R. § 1508.7.

<sup>2</sup> Military sonar generates intense sound that can induce a range of adverse effects in whales and other species – from significant behavioral changes to injury and death. The most widely reported and dramatic of these events are the mass strandings of beaked whales and other marine mammals that have been associated with military sonar use. A brief summary of the stranding record appears in Appendix B.

The failure to meaningfully assess these kinds of risks also necessarily infects the Navy's proposed mitigation measures and alternatives. The Navy fails to consider a variety of other options, alternatives, and common-sense mitigation measures – some employed by the Navy itself in previous training – that would reduce the impacts. What the Navy presents instead is an alternatives analysis and mitigation strategy so narrowly defined that it effectively disregards the environment.

The Navy can, and must, adopt meaningful measures to reduce the harmful impacts of sonar, including spatial and temporal restrictions for its training exercises. As described in detail in Appendix A and Section IV below, these measures should, at a minimum, include protecting the following areas:

- All inshore waters of Greater Puget Sound (including the Strait of Juan de Fuca and Strait of Georgia)
- Lower Continental Slope waters between 500 and 2,000 meter depth contours
- Outer coastal waters between the shoreline and the 100 meter depth contour
- Certain canyons and banks off Northern Washington State and Oregon
- The Olympic Coast National Marine Sanctuary

In sum, we urge the Navy to revise its impacts analysis consistent with federal law and to produce a mitigation plan – which includes protected areas – that truly maximizes environmental protection given the Navy's actual operational needs. We also urge the Navy to make available to the public the data and modeling on which its analysis is based.

#### I. Legal Framework: The National Environmental Policy Act

The National Environmental Policy Act of 1969 (“NEPA”) “declares a broad national commitment to protecting and promoting environmental quality.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 348 (1989). NEPA establishes a national policy to “encourage productive and enjoyable harmony between man and his environment” and “promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man.” 42 U.S.C. § 4321. In order to achieve its broad goals, NEPA mandates that “to the fullest extent possible” the “policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with [it].” 42 U.S.C. § 4332. To that end, NEPA requires that the potential environmental impacts of any “major Federal actions significantly affecting the quality of the human environment” be considered through the preparation of an environmental impact statement (“EIS”). *Robertson*, 490 U.S. at 348; 42 U.S.C. § 4332. This directive is known as a “set of action-forcing procedures” that require decision makers to take “a ‘hard look’ at environmental consequences.” *Robertson*, 490 U.S. at 349 (quoting *Kleppe v. Sierra Club*, 427 U.S. 390, 410, n.21 (1976)).

Central to NEPA is its requirement that, before any federal action that “may significantly degrade some human environmental factor” can be undertaken, agencies must prepare an EIS. *Steamboaters v. F.E.R.C.*, 759 F.2d 1382, 1392 (9th Cir. 1985)

(emphasis in original). The requirement to prepare an EIS “serves NEPA’s action-forcing purpose in two important respects.” *Robertson*, 490 U.S. at 349. First, “the agency, in reaching its decision, will have available, and will *carefully consider, detailed information* concerning significant environmental impacts[.]” and second, “the relevant information will be made available to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision.” *Id.* (emphasis added). As the Supreme Court explained: “NEPA’s instruction that all federal agencies comply with the impact statement requirement... ‘to the fullest extent possible’ [cit. omit.] is neither accidental nor hyperbolic. Rather the phrase is a deliberate command that the duty NEPA imposes upon the agencies to consider environmental factors not be shunted aside in the bureaucratic shuffle.” *Flint Ridge Development Co. v. Scenic Rivers Ass’n*, 426 U.S. 776, 787 (1976).

The fundamental purpose of an EIS is to force the decision-maker to take a “hard look” at a particular action – at the agency’s need for it, at the environmental consequences it will have, and at more environmentally benign alternatives that may substitute for it – before the decision to proceed is made. 40 C.F.R. §§ 1500.1(b), 1502.1; *Baltimore Gas & Electric v. NRDC*, 462 U.S. 87, 97 (1983). This “hard look” requires agencies to obtain high quality information and accurate scientific analysis. 40 C.F.R. § 1500.1(b). “General statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided.” *Klamath-Siskiyou Wilderness Center v. Bureau of Land Management*, 387 F.3d 989, 994 (9th Cir. 2004) (quoting *Neighbors of Cuddy Mountain v. United States Forest Service*, 137 F.3d 1372, 1380 (9th Cir. 1998)). The law is clear that the EIS must be a pre-decisional, objective, rigorous, and neutral document, not a work of advocacy to justify an outcome that has been foreordained.

In nearly every respect, the Navy’s DEIS fails to meet the high standards of rigor and objectivity required under NEPA.

## II. The Navy Fails to Properly Analyze Impacts on Marine Mammals

As set forth in further detail in Appendix A, a thorough review of the region’s marine mammals and habitat indicates that the Navy’s impacts analysis underestimates actual impacts on species. The Navy’s analysis of marine mammal distribution, habitat abundance, population structure and ecology also contains false, misleading or outdated assumptions that impede consideration of reasonable alternatives and mitigation measures.

### A. Impacts on Wildlife in the Olympic Coast National Marine Sanctuary

The NWTRC almost completely engulfs the Olympic Coast National Marine Sanctuary (“NMS”), a region of extraordinary biological diversity. Twenty-nine species of marine mammals occur in the Olympic Coast NMS, including eight threatened or endangered species of whales, otters and pinnipeds. The sanctuary provides important regular foraging habitat for humpback and killer whales, including the endangered Southern

Resident killer whale population (see below). Gray whales use the sanctuary during biannual migrations between calving and feeding areas, and a small, possibly distinct, group of gray whales known as “summer residents” use the area for feeding every summer. Additional cetacean species that have been observed in the waters of the sanctuary include: minke whales, fin whales, sei whales, sperm and pygmy sperm whales, blue whales, Hubb’s beaked whales, Cuvier’s beaked whales, Baird’s beaked whales, Stejneger’s beaked whales, Risso’s dolphins, false killer whales, common dolphins, northern right whale dolphins, Pacific white-sided dolphins, Dall’s porpoises, and harbor porpoises. Sea otters and pinnipeds such as Steller and California sea lions, harbor seals and elephant seals use near-shore areas within the sanctuary, haul out on land at a number of locations along the coast, and use deeper waters for foraging.

A recent NOAA report specifically identified both military activities and underwater noise pollution as two of several emerging threats to the Olympic Coast NMS.<sup>3</sup> The report recognizes that noise pollution has the potential to compromise habitat quality for the marine mammals, fish and other wildlife that inhabit the sanctuary. In particular, it finds that “an increase in Navy activity or areas of operation, if not properly controlled, could have potential to disturb the seabed, introduce pollutants associated with test systems, and produce sound energy that could negatively alter the acoustic environment within the sanctuary.”<sup>4</sup> Indeed, there is a long history of incompatibility between increased naval exercises in the Olympic Coast NMS and preservation of the unique characteristics and species that led to its designation. In the mid-1990’s, the Navy finally ended its bombing exercises at Sea Lion Rock after a protracted battle with wildlife advocates. The DEIS does not recognize that episode, nor does it include any specific mitigation measures or details about the Navy’s planned operations within the sanctuary that would prevent a similar situation from developing in the future.

In addition to marine mammals, the Olympic Coast NMS includes habitat for abundant fish and invertebrate species, including many commercially important fish and shellfish. Thirty species of rockfish (including 13 species of concern in Washington state), as well as Pacific halibut, herring, Pacific cod, Pacific whiting, lingcod, sablefish, Dungeness crab, razor clams, and five species of Pacific salmon (Chinook, sockeye, pink, chum and coho) inhabit sanctuary waters.<sup>5</sup> Threatened species in the sanctuary include the Olympic Coast populations of Ozette sockeye salmon and bull trout. Unique assemblages of cold-water corals and sponges, including gorgonians, stony corals and giant cup corals, have been found in the deeper waters of the sanctuary.

Despite the abundance of marine mammals, fish and invertebrates, as well as habitat for those species, the DEIS dismisses or improperly minimizes any significant risk to fish

<sup>3</sup> NOAA, *Olympic Coast National Marine Sanctuary, Condition Report 2008* (September 2008), available at [http://sanctuaries.noaa.gov/library/national/oc\\_conditionreport08.pdf](http://sanctuaries.noaa.gov/library/national/oc_conditionreport08.pdf).

<sup>4</sup> *Id.* at 31.

<sup>5</sup> Notably, habitat degradation is a contributing factor in salmon decline, making the protection of the Olympic Coast NMS all the more important.

and wildlife in this area. At a minimum, the Navy must provide a detailed analysis of the impacts on marine species in the Olympic Coast NMS. Further, given the federally-protected status of the Sanctuary and its importance to a host of endangered and threatened fish and wildlife, the Navy should prepare and evaluate an alternative that excludes the Olympic Coast NMS from training exercises.

B. Impacts on Southern Resident Killer Whales

The NWTRC overlaps with critical habitat designated for Southern Resident killer whales in Puget Sound, as well as those coastal waters vital to the whales' survival and recovery that were improperly excluded from NMFS' critical habitat designation. This population, which is recognized as a Distinct Population Segment and protected under the Endangered Species Act, declined by nearly 20% between 1996 and 2001. The Southern Residents remain at high risk. Since they were listed as endangered, the population has declined further to a mere 87 individuals in 2007 and recent reports are that another 7 whales died in 2008.<sup>6</sup> Several anthropogenic factors have been implicated in the decline, including high contaminant loads of PCBs, PBDEs and other toxics detected in blubber samples; declining prey availability as salmon (the whales' primary food source) have been decimated by freshwater habitat destruction, harmful hatchery practices, and historically poor harvest management; effects from vessels; and noise pollution.<sup>7</sup> NMFS recognizes acoustic effects and oil spills as among the principle potential threats facing this population, and in its Final Recovery Plan proposed to "continue agency coordination and use of existing ESA and MMPA mechanisms to minimize potential impacts from anthropogenic sound."<sup>8</sup>

Because of the considerable uncertainty regarding the relative impacts of noise, as well as other threats, any additional anthropogenic stressors to the population must be drastically reduced. Further, due to these anthropogenic factors, the Southern Residents are under tremendous stress and cumulative impacts must be fully evaluated. In particular, any additional incursions or increased activity both within and outside designated critical habitat must be carefully evaluated for impacts to the extinction probability and recovery prospects for this population. As demonstrated by the events of May 5, 2003 in the Strait of Juan de Fuca and Haro Strait (described in further detail in Appendix B), exposure to military sonar is known to disrupt the behavior of Southern Resident killer whales, and thus particular attention is warranted to the location of any exercises involving sonar. As a recent NMFS Draft Biological Opinion noted, "observations from an event that occurred in the Strait of Juan de Fuca and Haro Strait

<sup>6</sup> See, e.g., Robert McClure, Are the orcas starving?, seattlepi.com (Oct. 24, 2008), available at [http://seattlepi.nwsource.com/local/384854\\_orcas25.html](http://seattlepi.nwsource.com/local/384854_orcas25.html) (noting that as salmon numbers decline, seven killer whales have most likely died, bringing the population down to 83).

<sup>7</sup> NMFS, Recovery Plan for Southern Resident Killer Whales (*Orcinus orca*), (Jan. 17, 2008); See also NMFS, Draft Biological Opinion for the Long-Term Central Project and State Water Project Operations Criteria and Plan (Dec. 11, 2008).

<sup>8</sup> *Id.* at v.

in 2003 illustrate that mid-frequency sonar can cause behavioral disturbance."<sup>9</sup> NMFS further concluded that "[i]mpacts from [sonar] can range from serious injury and mortality to changes in behavior."<sup>10</sup>

Yet the DEIS completely dismisses the potential impacts of Navy sonar on the endangered Southern Resident killer whale community and their endangered salmonid prey.<sup>11</sup> In addition, as we discuss below, the expected increase in vessel traffic and training actions raises the risk of oil or hazardous waste spills both from Navy vessels and from accidents involving other vessels. But neither of those risks are analyzed or fully disclosed in the DEIS. To comply with NEPA, the Navy must fully analyze these impacts and set forth all reasonable mitigation measures to reduce them. At a minimum, the Navy should exclude critical habitat for the Southern Resident killer whales (i.e., the waters of Greater Puget Sound) from training exercises. In addition to the mitigation measures proposed in Section IV, the Navy should also monitor the location of Southern Residents whenever they are outside of the opening to the Strait of Juan de Fuca and report the location to the public with no more than a 24 hr delay between sighting and reporting.

C. Acoustic Impacts

To comply with NEPA, agencies must ensure the "professional integrity, including scientific integrity," of the discussions and analyses that appear in environmental impact statements. 40 C.F.R. § 1502.24. To that end, they must make every attempt to obtain and disclose data necessary to their analysis. The simple assertion that "no information exists" will not suffice; unless the costs of obtaining the information are exorbitant, NEPA requires that it be obtained. See 40 C.F.R. § 1502.22(a). Agencies are further required to identify their methodologies, indicate when necessary information is incomplete or unavailable, acknowledge scientific disagreement and data gaps, and evaluate indeterminate adverse impacts based upon approaches or methods "generally accepted in the scientific community." 40 C.F.R. §§ 1502.22(2), (4), 1502.24. Such requirements become acutely important in cases where, as here, so much about a program's impacts depend on newly emerging science.

In this case, the Navy's assessment of impacts is consistently undermined by its failure to meet these fundamental responsibilities of scientific integrity, methodology,

<sup>9</sup> See NMFS, Draft Biological Opinion for the Long-Term Central Project and State Water Project Operations Criteria and Plan at 111 (Dec. 11, 2008).

<sup>10</sup> *Id.* at 110.

<sup>11</sup> Declines in salmon abundance have contributed to the decline of the Southern Resident killer whale. As a recent NMFS draft Biological Opinion acknowledges, "When prey is scarce, whales must spend more time foraging than when it is plentiful. Increased energy expenditure and prey limitation could lead to lower reproductive rates and higher mortality rates. Food scarcity could cause whales to draw on fat stores, mobilizing contaminants stored in their fat and affecting reproduction and immune function." See NMFS, Draft Biological Opinion for the Long-Term Central Project and State Water Project Operations Criteria and Plan at 107 (Dec. 11, 2008).

investigation, and disclosure. As set forth in greater detail in Appendix C and the attached critique by Dr. Bain, the DEIS disregards a great deal of relevant information adverse to the Navy's interests, uses approaches and methods that would not be acceptable to the scientific community, and ignores whole categories of impacts. In short, it leaves the public with an analysis of harm—behavioral, auditory, and physiological—that is at odds with established scientific authority and practice. The Navy must revise its acoustic impacts analysis, including its thresholds and risk function, to comply with NEPA.

D. Other Impacts on Marine Mammals

The activities proposed for the NWTRC may have impacts that are not limited to the effects of ocean noise. Unfortunately, the Navy's analysis of these other impacts is cursory and inadequate.

First, the Navy fails to adequately assess the impact of stress on marine mammals, a serious problem for animals exposed even to moderate levels of sound for extended periods.<sup>12</sup> DEIS at 3.9-60 to 61. As the Navy has previously observed, stress from ocean noise—alone or in combination with other stressors, such as biotoxins—may weaken a cetacean's immune system, making it "more vulnerable to parasites and diseases that normally would not be fatal."<sup>13</sup> Moreover, according to studies on terrestrial mammals, chronic noise can interfere with brain development, increase the risk of myocardial infarctions, depress reproductive rates, and cause malformations and other defects in young—all at moderate levels of exposure.<sup>14</sup> Because physiological stress responses are highly conservative across species, it is reasonable to assume that marine mammals would be subject to the same effects, particularly—as appears to be the case here—if they are resident animals exposed repeatedly to a variety of stressors in the NWTRC. Yet despite the potential for stress in marine mammals and the significant consequences that can flow from it, the Navy unjustifiably assumes that such effects would be minimal.

<sup>12</sup> See National Research Council, Ocean Noise and Marine Mammals.

<sup>13</sup> Navy, Hawaii Range Complex Draft Environmental Impact Statement/ Overseas Environmental Impact Statement at 5-19 to 5-20 (2007). Additional evidence relevant to the problem of stress in marine mammals is summarized in A.J. Wright, N. Aguilar Soto, A.L. Baldwin, M. Bateson, C.M. Beale, C. Clark, T. Deak, E.F. Edwards, A. Fernández, A. Godinho, L. Hatch, A. Kakuschke, D. Lusseau, D. Martineau, L.M. Romero, L. Weilgart, B. Wintle, G. Notarbartolo di Sciara, and V. Martin, Do marine mammals experience stress related to anthropogenic noise?, 20 *International Journal of Comparative Psychology*, 274-316 (2007); see also T.A. Romano, M.J. Keogh, C. Kelly, P. Feng, L. Berk, C.E. Schlundt, D.A. Carder, and J.J. Finneran, Anthropogenic Sound and Marine Mammal Health: Measures of the Nervous and Immune Systems Before and After Intense Sound Exposure, 61 *Canadian Journal of Fisheries and Aquatic Sciences* 1124, 1130-31 (2004).

<sup>14</sup> See, e.g., E.F. Chang and M.M. Merzenich, Environmental Noise Retards Auditory Cortical Development, 300 *Science* 493 (2003) (rats); S.N. Willich, K. Wegscheider, M. Stallmann, and T. Keil, Noise Burden and the Risk of Myocardial Infarction, *European Heart Journal* (2005) (Nov. 24, 2005) (humans); F.H. Harrington and A.M. Veitch, Calving Success of Woodland Caribou Exposed to Low-Level Jet Fighter Overflights, 45 *Arctic* vol. 213 (1992) (caribou).

Second, the Navy fails to consider the risk of ship collisions with large cetaceans, as exacerbated by the use of active acoustics. DEIS 3.9-6, 69. For example, right whales have been shown to engage in dramatic surfacing behavior, increasing their vulnerability to ship strikes, on exposure to mid-frequency alarms above 133 dB re 1  $\mu$ Pa (SPL)—a level of sound that can occur many tens of miles away from the sonar systems slated for the range.<sup>15</sup> DEIS 3.9-69. A conservative approach would assume that other large whales (which, as the DEIS repeatedly notes, are already highly susceptible to vessel collisions) are subject to the same hazard. For instance, fin whales also occur within the NWTRC and appear to be particularly vulnerable to ship strikes.<sup>16</sup> Indeed, in a recent 16-year survey of ship strikes in Washington State waters, fin whales "had the highest incidence of ante-mortem ship strike" of the seven species of large whales examined.<sup>17</sup> But in discussing the effects of vessels on fin whales, the DEIS presents only the most conclusory assertions about the whales' potential responses to approaching vessels and discounts both the risk and consequences of vessel strikes. See DEIS 3.9-89 (asserting only that it "is likely that fin and humpback whales would have little reaction to vessels that maintain a reasonable distance from the animals"); *id.* at 3.9-92, 106, 111 (Alternatives "would have no significant impact on marine mammals."). The DEIS fails to discuss even the potential for mortality or injury to fin whales from ship strikes. NEPA's hard look requires the Navy to undertake a far more detailed examination of this potentially significant source of mortality for fin whales under even the no action alternative, as well as from the 4 to 10 percent increase in vessel traffic that would occur under alternatives 1 and 2.

Third, in the course of its training activities, the Navy would release a host of toxic chemicals, hazardous materials and waste into the marine environment that could pose a threat to local wildlife over the life of the range. Nonetheless, the DEIS fails to adequately consider the cumulative impacts of these toxins on marine mammals from past, current, and proposed training exercises. DEIS 4-14 to 15. Careful study is needed into the way toxins might disperse and circulate within the area and how they may affect marine wildlife. The Navy's assumption that toxics would dissipate, become buried in sediment, or would be contained leads to a blithe conclusion that releases of hazardous material would have "no adverse effects." Given the level of training exercise increases proposed in the action alternatives, and the amount of ordnance and other hazardous materials necessary for that training, this discussion is inadequate under NEPA.

<sup>15</sup> Nowacek *et al.*, North Atlantic Right Whales, 271 *Proceedings of the Royal Society of London, Part B: Biological Sciences* at 227. The North Pacific right whale is an endangered species closely related to the studied North Atlantic right whale.

<sup>16</sup> See <http://www.cascadiaresearch.org/WestportBm20090113.htm>

<sup>17</sup> Annie B. Douglas, Incidence of ship strikes of large whales in Washington State, *Journal of the Marine Biological Association of the United Kingdom*, 2008, 88(6), 1121-1132, available at <http://www.cascadiaresearch.org/reports/Douglas%20et%20al%202008-Incidence%20of%20ship%20strikes%20of%20large%20whales.pdf>.

Fourth, the Navy does not adequately analyze the potential for and impact of oil spills, particularly to the endangered Southern Resident killer whales.<sup>18</sup> Because the Puget Sound area is home to the world's third largest Navy homeport, the nation's third largest container port complex, Canada's largest port, and one of this country's high volume oil ports, there is a significant existing risk of an oil spill. This risk is exacerbated by increasing the tempo and intensity of Navy training, which will involve more vessels, more transits, and longer missions throughout the range.<sup>19</sup> The largest oil spill to occur in Washington waters was a result of the Navy vessel *General Meiggs* (releasing 2.3 million gallons). More recently, on August 4, 2006, the USS *Nevada*, a Navy Trident submarine based at Naval Base Kitsap-Bangor, severed the towline of the tug *Phyllis Dunlap* and its barge at the entrance to the Strait of Juan de Fuca. Although the tug *Phyllis Dunlap* was transiting with two empty barges when the incident took place, and was able with support to reestablish its connection, this incident is very similar to one that occurred off Cape Flattery in October 2003 when the Navy sub USS *Topeka* separated an empty oil barge from its tow and indicates the potential for Navy activities to cause accidents at sea. NOAA considers the possibility of a large spill to be one of the most important short-term threats to killer whales and other coastal organisms in the northeastern Pacific.<sup>20</sup>

The Washington State Department of Ecology ranks coastal resources to be the most sensitive and most at risk from oil spills in the State. Though the largest spills in the history of Washington State have occurred off the Washington Coast, spill response today remains hindered by rough seas and lack of response gear appropriate to the operating environment. Even in light of this history and the extraordinarily valuable and sensitive coastal resources that occur in the NWTRC, the Navy currently has none of its spill response or salvage equipment stationed on the coast. Given the nature of the existing risk—let alone the Navy's proposal to expand its use of the range—and the extraordinary value of the marine and coastal resources within the NWTRC, the Navy must consider stationing such equipment under all of the alternatives discussed in the DEIS.

Finally, the Navy's analysis cannot be limited only to direct effects, *i.e.*, effects that occur at the same time and place as the training exercises that would be authorized. 40 C.F.R. § 1508.8(a). It must also take into account the activity's indirect effects, which, though reasonably foreseeable (as the DEIS acknowledges), may occur later in time or

<sup>18</sup> NMFS recognizes oil spills as among the principle potential threats facing the population of Southern Resident killer whales. See NMFS, Recovery Plan for Southern Resident Killer Whales (*Orcinus orca*), (Jan. 17, 2008).

<sup>19</sup> We note that the Navy should include in its analysis and disclose to the public a chart that shows how its operating areas overlap shipping lanes, recommended routes, and Areas to Be Avoided as an indication of the potential for conflict with other vessels.

<sup>20</sup> Krahn, M. M., P. R. Wade, S. T. Kalinowski, M. E. Dahlheim, B. L. Taylor, M. B. Hanson, G. M. Ylitalo, R. P. Angliss, J. E. Stein, and R. S. Waples. 2002. Status review of southern resident killer whales (*Orcinus orca*) under the Endangered Species Act, NOAA Technical Memorandum NMFS-NWFSC-54, U.S. Department of Commerce, Seattle, Washington.

are further removed. 40 C.F.R. § 1508.8(b). This requirement is particularly critical in the present case given the potential for sonar exercises to cause significant long-term impacts not clearly observable in the short or immediate term (a serious problem, as the National Research Council has observed).<sup>21</sup> Thus, for example, the Navy must not only evaluate the potential for mother-calf separation but also the potential for indirect effects—on survivability—that might arise from that transient change. 40 C.F.R. § 1502.16(b).

Without further consideration of these impacts, and mitigation and alternatives developed to address those impacts, the DEIS does not pass NEPA muster.

#### E. Other Impacts on Wildlife

The activities proposed for the NWTRC will have impacts that are obviously not limited to the effects on marine mammals. As just one example, the potential impacts to vulnerable upland wildlife and their prey are not adequately disclosed or analyzed in the DEIS. Compared to the No Action Alternative, Alternatives 1 and 2 propose increases in flights over uplands areas. Air Combat Maneuvers will increase from 1353 to 2000 sorties, and HARM Missile Exercise activities will increase from 2724 to 3,000 sorties. Although we were able to find limited information regarding the proposed flights, including Figure 2-2, which provides reference, unfortunately, the scale of that figure makes it difficult to discern specific impacts.

Of particular concern are the potential impacts of low flights. In the Okanogan Military Operating Area ("MOA") segments B and C, and Roosevelt MOA section B, the lower limit flight altitude is just 300 feet. Although the DEIS states that the "preponderance of air activities occur at high altitudes," without any specific details, however, it remains unclear how many flights will be low altitude. The Final EIS must disclose how many low flights are included in Alternatives 1 and 2, as well as how much of an increase or decrease is this relative to the No Action Alternative. It must also evaluate the impacts of these flights on wildlife and recreation.

For instance, it is not clear what the impact of increased flights will be on vulnerable wildlife, such as federally and state listed species. The omission of the BE compounds our inability to understand and comment upon the Navy's conclusions. Section 3.11.2.2 includes a good discussion regarding how noise can impact wildlife generally, but there is no detail regarding impacts to specific species that will actually be impacted by the proposed actions. Flights close to the ground may disturb the natural behavior of vulnerable wildlife and cause them to flee. Effects may include: in the harsh mountain environment animals may flee to steep areas where the risk of falling or avalanche are higher; large amounts of energy might be expended as an animal flees through deep snow; predation might be more likely when an animal abandons cover; an animal may

<sup>21</sup> "Even transient behavioral changes have the potential to separate mother-offspring pairs and lead to death of the young, although it has been difficult to confirm the death of the young." National Research Council, Ocean Noise and Marine Mammals at 96.

abandon denning, nesting or critical habitat; and prey may flee the area. The DEIS contains no discussion of these or other such issues. The Final EIS must evaluate and disclose potential impacts to specific species. It must discuss how such impacts be reduced or mitigated. In addition, for impacted species listed as threatened or endangered, the Navy must consult with NOAA or U.S. Fish and Wildlife Service to fully evaluate any impacts to these species or their critical habitat.

### III. The Navy Failed to Analyze the Impacts on Fish and Fisheries

The DEIS also fails to evaluate the impacts of anthropogenic sound on fish and fisheries.<sup>22</sup> Though the architecture of their ears may differ, fish are equipped, like all vertebrates, with thousands of sensory hair cells that vibrate with sound; and a number of specialized organs like the abdominal sac, called a “swim bladder,” that some species possess which can boost hearing. Fish use sound in many of the ways that marine mammals do: to communicate, defend territory, avoid predators, and, in some cases, locate prey.<sup>23</sup>

One series of recent studies showed that passing airguns can severely damage the hair cells of fish (the organs at the root of audition) either by literally ripping them from their base in the ear or by causing them to “explode.”<sup>24</sup> Fish, unlike mammals, are thought to regenerate hair cells, but the pink snapper in these studies did not appear to recover within approximately two months after exposure, leading researchers to conclude that the damage was permanent.<sup>25</sup> It is not clear which elements of the sound wave contributed to the injury, or whether repetitive exposures at low amplitudes or a few exposures at higher pressures, or both, were responsible.<sup>26</sup>

Sound has also been shown to induce temporary hearing loss in fish. Even at fairly moderate levels, noise from outboard motor engines is capable of temporarily deafening some species of fish, and other sounds have been shown to affect the short-term hearing

<sup>22</sup> As discussed above, declines in salmon are threatening the survival of the Southern Resident killer whales. As NMFS concluded, “[a]ny proposed action-related effects that decrease the availability of salmon, and Chinook salmon in particular, could adversely affect Southern Residents...” See NMFS, Draft Biological Opinion for the Long-Term Central Project and State Water Project Operations Criteria and Plan at 111 (Dec. 11, 2008). Unfortunately, the DEIS fails to fully evaluate the impacts on fish and thus on the species that depend on fish as prey.

<sup>23</sup> See, e.g., A.N. Popper, Effects of Anthropogenic Sounds on Fishes, 28(10) *Fisheries* 26-27 (2003); M.C. Hastings & A.N. Popper, Effects of Sound on Fish 19 (2005) (Report to the California Department of Transportation, Contract No. 43A0139), p., 19; D.A. Croll, Marine Vertebrates and Low Frequency Sound—Technical Report for LFA EIS 1-90 (1999).

<sup>24</sup> R. McCauley, J. Fewtrell, and A.N. Popper, High Intensity Anthropogenic Sound Damages Fish Ears, 113 *Journal of the Acoustical Society of America* 640 (2003).

<sup>25</sup> *Id.* at 641 (some fish in the experimental group sacrificed and examined 58 days after exposure).

<sup>26</sup> *Id.*

of a number of other species, including sunfish and tilapia.<sup>27</sup> For any fish that is dependent on sound for predator avoidance and other key functions, even a temporary loss of hearing (let alone the virtually permanent damage seen in snapper) will substantially diminish its chance of survival.<sup>28</sup>

Hearing loss is not the only effect that ocean noise can have on fish. For years, fisheries in various parts of the world have complained about declines in their catch after intense acoustic activities (including naval exercises) moved into the area, suggesting that noise is seriously altering the behavior of some commercial species.<sup>29</sup> A group of Norwegian scientists attempted to document these declines in a Barents Sea fishery and found that catch rates of haddock and cod (the latter known for its particular sensitivity to low-frequency sound) plummeted across a 1600 square-mile area surrounding an airgun survey; in another experiment, catch rates of rockfish were similarly shown to decline.<sup>30</sup> Drops in catch rates in these experiments range from 40 to 80 percent.<sup>31</sup> A variety of other species, herring, zebrafish, pink snapper, and juvenile Atlantic salmon, have also been observed to react to various noise sources with acute alarm.<sup>32</sup>

<sup>27</sup> A.R. Scholik and H.Y. Yan, Effects of Boat Engine Noise on the Auditory Sensitivity of the Fathead Minnow, *Pimephales promelas*, 63 *Environmental Biology of Fishes* 203-09 (2002); A.R. Scholik and H.Y. Yan, The Effects of Noise on the Auditory Sensitivity of the Bluegill Sunfish, *Lepomis macrochirus*, 133 *Comparative Biochemistry and Physiology Part A* at 43-52 (2002); M.E. Smith, A.S. Kane, & A.N. Popper, Noise-Induced Stress Response and Hearing Loss in Goldfish (*Carassius auratus*), 207 *Journal of Experimental Biology* 427-35 (2003); Popper, Effects of Anthropogenic Sounds at 28.

<sup>28</sup> See Popper, Effects of Anthropogenic Sounds at 29; McCauley et al., High Intensity Anthropogenic Sound Damages Fish Ears, at 641.

<sup>29</sup> See “‘Noisy’ Royal Navy Sonar Blamed for Falling Catches,” Western Morning News, Apr. 22, 2002 (sonar off the U.K.); Percy J. Hayne, President of Gulf Nova Scotia Fleet Planning Board, “Coexistence of the Fishery & Petroleum Industries,” [www.elements.nb.ca/theme/fuels/percy/hayne.htm](http://www.elements.nb.ca/theme/fuels/percy/hayne.htm) (accessed May 15, 2005) (airguns off Cape Breton); R.D. McCauley, J. Fewtrell, A.J. Duncan, C. Jenner, M.-N. Jenner, J.D. Penrose, R.I.T. Prince, A. Adhitya, J. Murdoch, and K. McCabe, Marine Seismic Surveys: Analysis and Propagation of Air-Gun Signals, and Effects of Air-Gun Exposure on Humpback Whales, Sea Turtles, Fishes, and Squid 185 (2000) (airguns in general).

<sup>30</sup> A. Engås, S. Løkkeborg, E. Ona, and A.V. Soldal, Effects of Seismic Shooting on Local Abundance and Catch Rates of Cod (*Gadus morhua*) and Haddock (*Melanogrammus aeglefinus*), 53 *Canadian Journal of Fisheries and Aquatic Sciences* 2238-49 (1996); J.R. Skalski, W.H. Pearson, and C.I. Malme, Effects of Sound from a Geophysical Survey Device on Catch-Per-Unit-Effort in a Hook-and-Line Fishery for Rockfish (*Sebastes* spp.), 49 *Canadian Journal of Fisheries and Aquatic Sciences* 1357-65 (1992). See also S. Løkkeborg and A.V. Soldal, The Influence of Seismic Exploration with Airguns on Cod (*Gadus morhua*) Behaviour and Catch Rates, 196 *ICES Marine Science Symposium* 62-67 (1993).

<sup>31</sup> *Id.*

<sup>32</sup> See J.H.S. Blaxter and R.S. Batty, The Development of Startle Responses in Herring Larvae, 65 *Journal of the Marine Biological Association of the U.K.* 737-50 (1985); F.R. Knudsen, P.S. Enger, and O. Sand, Awareness Reactions and Avoidance Responses to Sound in Juvenile Atlantic Salmon, *Salmo salar* L., 40 *Journal of Fish Biology* 523-34 (1992); McCauley et al., Marine Seismic Surveys at 126-61.

In their comments on the Navy's DEIS for the proposed Undersea Warfare Training Range off North Carolina, several fishermen and groups of fishermen independently reported witnessing sharp declines in catch rates of various species when in the vicinity of Navy exercises.<sup>33</sup> These reports are indicative of behavioral changes, such as a spatial redistribution of fish within the water column, that could affect marine mammal foraging as well as human fisheries. In addition, as NMFS has observed, the use of mid-frequency sonar could affect the breeding behavior of certain species, causing them, for example, to cease their spawning choruses, much as certain echolocation signals do.<sup>34</sup> The repetitive use of sonar and other active acoustics could have significant adverse behavioral effects on some species of fish and those who depend on them.

Moreover, as the Navy is aware after recently completing consultation with both NMFS (for salmon) and the U.S. Fish and Wildlife Service (for bull trout) over its Explosive Ordnance Disposal ("EOD") training exercises in Puget Sound, underwater explosions are responsible for high direct mortality to fish species present in the area. Indeed, the underwater detonation of just five pounds of plastic explosives has been observed to kill over 5,000 fish with swirl bladders, with more accurate estimates ranging as high as 20,000 fish. While the DEIS notes that EOD activities have largely been shifted to Imperial Beach, CA, there are a variety of live-fire training exercises, some of which involve underwater explosions of torpedoes and other ordnance, that will take place in the NWTRC under all three alternatives. Given the variety of threatened and endangered fish species inhabiting these waters – including but not limited to salmon runs that the region is spending billions of dollars in an attempt to recover – the DEIS' failure to analyze these effects in any detail is stunning.

Although the nation's fish and wildlife agencies, and the studies detailed above document impacts to fish from both noise and underwater explosions, the DEIS nonetheless concludes that there would be no adverse effects on fish from its increased sonar training activities and explosive detonations. DEIS at 3.7-52 to 57. Such a conclusion is at odds with the scientific literature.

The Navy's conclusion also ignores the literature on noise exposure and fish development. A number of studies, including one on non-impulsive noise, show that intense sound can kill eggs, larvae, and fry outright or retard their growth in ways that may hinder their survival later.<sup>35</sup> Significant mortality for fish eggs has been shown to

<sup>33</sup> See comments compiled by the Navy and posted on the Undersea Warfare Training Range EIS site, available at <http://www.projects.earthtech.com/USWTR> (e.g., comments of S. Draughon, S. Fromer, L. and F. Gromadzki, D. Pendergrast, and North Carolina Watermen United).

<sup>34</sup> Letter from Miles I.A. Croom, NMFS Southeast Regional Office, to Keith Jenkins, Navy (Jan. 31, 2006); see also J.J. Luczakovich, "Potential Impacts of the U.S. Navy's Proposed Undersea Warfare Training Range on Fishes" (2006) (presentation to Navy).

<sup>35</sup> See, e.g., C. Boomán, J. Dalen, H. Leivestad, A. Levsen, T. van der Meer, and K. Toklum, *Effekter av luftkanonskyting på egg, larver og yngel* (Effects from Airgun Shooting on Eggs, Larvae,

occur at distances of 5 meters from an airgun source; mortality rates approaching 50 percent affected yolk sac larvae at distances of 2 to 3 meters.<sup>36</sup> With respect to mid-frequency sonar, the Navy itself has noted that "some sonar levels have been shown [in Norwegian studies] to be powerful enough to cause injury to particular size classes of juvenile herring from the water's surface to the seafloor."<sup>37</sup> Also, larvae in at least some species are known to use sound in selecting and orienting toward settlement sites.<sup>38</sup> Acoustic disruption at that stage of development could have significant consequences.<sup>39</sup> Although the Navy acknowledges that eggs and larvae may be more susceptible to sound, it caveats that acknowledgement with the excuse that "more well-controlled studies are needed." DEIS at 3.7-38. However, NEPA does not allow the Navy to ignore the valid scientific studies that have already been conducted simply because they are contrary to its interest.

After glossing over the effects of noise on fish in only two short paragraphs, the Navy capriciously dismisses the potential for adverse impacts on fish. DEIS 3.7-37 to 38. Such analysis does not meet the requirements of NEPA. The Navy must rigorously analyze the potential for behavioral, auditory, and physiological impacts on fish, including the potential for population-level effects, using models of fish distribution and population structure and conservatively estimating areas of impact from the available literature. 40 C.F.R. § 1502.22. It must also provide appropriate mitigation measures, such as avoidance of spawning grounds and of important habitat for fish species, especially hearing specialists. Finally, the Navy should consider excluding designated critical habitat for listed species such as salmon in the NWTRC from training exercises.

#### IV. The Proposed Mitigation Measures Fail to Protect Marine Wildlife

To comply with NEPA, an agency must discuss measures designed to mitigate its project's impact on the environment. See 40 C.F.R. § 1502.14(f). There is a large and growing set of options for the mitigation of noise impacts to marine mammals and other marine life, some of which have been imposed by foreign navies<sup>40</sup>—and by the Navy

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*and Fry*, 3 Fiske og Havet 1-83 (1996) (Norwegian with English summary); J. Dalen and G.M. Knutsen, *Scaring Effects on Fish and Harmful Effects on Eggs, Larvae and Fry by Offshore Seismic Explorations*, in H.M. Merklinger, *Progress in Underwater Acoustics* 93-102 (1987); A. Banner and M. Hyatt, *Effects of Noise on Eggs and Larvae of Two Estuarine Fishes*, 1 Transactions of the American Fisheries Society 134-36 (1973); L.P. Kostyuchenko, *Effect of Elastic Waves Generated in Marine Seismic Prospecting on Fish Eggs on the Black Sea*, 9 Hydrobiology Journal 45-48 (1973).

<sup>36</sup> Booman et al., *Effekter av luftkanonskyting på egg, larver og yngel* at 1-83.

<sup>37</sup> Navy, Draft Environmental Impact Statement/ Overseas Environmental Impact Statement for the Southern California Range Complex 3.7-66 to 3.7-67 (2008). On the Northwest Pacific range, the Navy would operate sonar at higher levels than those used in the Norwegian studies.

<sup>38</sup> S.D. Simpson, M. Meekan, J. Montgomery, R. McCauley, R., and A. Jeffs, *Homeward Sound*, 308 Science 221 (2005).

<sup>39</sup> Popper, *Effects of Anthropogenic Sounds* at 27.

<sup>40</sup> See S.J. Dolman, C.R. Weir, and M. Jasny, *Comparative Review of Marine Mammal Guidance Implemented during Naval Exercises*, \_\_ Marine Pollution Bulletin \_\_ (Dec. 12, 2008).

itself, in other contexts—to limit harm from high-intensity sonar exercises. Yet here the Navy does little more than set forth an abbreviated set of measures, dismissing effective measures out of hand.

All of the mitigation that the Navy has proposed for sonar impacts boils down to the following: a very small safety zone around the sonar source, maintained primarily with visual monitoring by personnel with other responsibilities, with aid from shipboard passive monitoring when personnel are already using such technology. Under the proposed scheme, operators would power-down the system if a marine mammal is detected within 1,000 yards and shut-down the system if a marine mammal is detected within 200 yards. DEIS at 5-9 to 12.

This mitigation scheme disregards the best available science on the significant limits of visual monitoring. Visual detection rates for marine mammals generally approach only 5 percent. Moreover, the species perhaps most vulnerable to sonar-related injuries, beaked whales, are among the most difficult to detect because of their small size and diving behavior. It has been estimated that in anything stronger than a light breeze, only one in fifty beaked whales surfacing in the direct track line of a ship would be sighted; as the distance approaches 1 kilometer, that number drops to zero.<sup>41</sup> The Navy's reliance on visual observation as the mainstay of its mitigation plan is therefore profoundly misplaced.

The Navy's ineffective mitigation measures are all the more remarkable given its adoption of more protective measures during previous training. For example, the Atlantic Fleet has repeatedly sited exercises beyond the continental shelf and Gulf Stream, relocated exercises out of important habitat and to avoid certain species, and used a technique called "simulated geography" to avoid canyons and near-shore areas on at least three of its major ranges. It has also restricted sonar use at night when marine mammals are harder to detect, as well as minimized the use of sonar from multiple sources at the same time.<sup>42</sup>

In this light, the Navy's claims that it cannot implement more protective mitigation measures ring false. DEIS at 5-22 to 28. Although the Navy goes to some pain to describe "alternative mitigation measures considered but eliminated"—primarily for "training effectiveness" reasons—its previous adoption of the same measures belies its argument. Clearly the Navy has done more to mitigate the harmful effects of sonar in previous exercises than what it proposes for the NWTRC. It can, and must, do more to mitigate the harm on marine wildlife.

<sup>41</sup> J. Barlow and R. Gisiner, Mitigating, Monitoring, and Assessing the Effects of Anthropogenic Noise on Beaked Whales, 7 *Journal of Cetacean Research and Management* 239-249 (2006).

<sup>42</sup> Final Comprehensive Overseas Environmental Assessment for Major Atlantic Fleet Training Exercises February 2006, Prepared for United States Fleet Forces Command in accordance with Chief of Naval Operations Instruction 5090.1B pursuant to Executive Order 12114; *See also* Atlantic Fleet Exercises Using Mid-Frequency Sonar Mitigation Chart.

#### A. Protection Zones

To mitigate sonar's harmful effects on marine wildlife, the Navy should adopt protection zones in which sonar activity will be banned. Based on our preliminary analysis of marine mammal densities and habitat in the Pacific Northwest, we call for the following exclusion areas for sonar:

- 1) All inshore waters of Greater Puget Sound (including the Strait of Juan de Fuca and Strait of Georgia) – This area is one of the most important habitats for the Southern Resident community of killer whales (and their nearly-exclusive habitat in summer/autumn months). The population is listed as Endangered under the ESA. In addition, Greater Puget Sound also constitutes important habitat for many other marine mammal species, including minke whales, harbor porpoises, Dall's porpoises, and several species of pinnipeds. Another issue is that the enclosed nature of the Sound, with its many steep, reflective rock walls, heightens concerns about the behavior of sonar signals in this area.<sup>43</sup>
- 2) Lower Continental Slope waters between the 500 and 2,000 m depth contours – This area represents the most important habitat for beaked whales in the area. There is good supporting evidence for their preference for this type of habitat (see Appendix A), and due to the year-round presence of these animals, protection should occur throughout the year. Any Navy plan for the Northwest Pacific should, at minimum, avoid areas within this bathymetric range with unusual bottom topography (such as canyons), and should include a firm, multi-year commitment to sponsor fine-scale surveys with the aim of identifying important beaked whale habitat for avoidance.
- 3) Outer coastal waters between the shoreline and the 100 m depth contour (and buffer zone) – This area, bounded by the mainland shoreline and the 100 m contour, represents vital habitat for two discrete populations of harbor porpoise. The species is known for its high sensitivity to acoustic sources, responding strongly to various sources of anthropogenic noise at pressure levels well below 140 dB re 1  $\mu$ Pa.<sup>44</sup> Indeed, for its EIS on

<sup>43</sup> NMFS. 2005. Assessment of acoustic exposures on marine mammals in conjunction with USS *Shoup* Active Sonar Transmissions in the Eastern Strait of Juan de Fuca and Haro Strait, Washington, 5 May 2003 (noting the effects of reverberation).

<sup>44</sup> R.A. Kastelein, W.C. Verboom, M. Muijsers, N.J. Jennings and S. Van Der heul, The influence of acoustic emissions for underwater data transmission on the behaviour of harbor porpoises (*Phocoena phocoena*) in a floating pen. *Marine Environmental Research* 59:287-307 (2005); R.A. Kastelein, A.N. Jennings, W.C. Verboom, D. De Haan and N.M. Schooneman, Differences in the response of a striped dolphin (*Stenella coeruleoalba*) and a harbour porpoise (*Phocoena phocoena*) to an acoustic alarm. *Marine Environmental Research* 61:363-378 (2006); NMFS 2005; P. Olesiuk, M.A. Bigg and G.M. Ellis. Life history and population dynamics of resident killer whales (*Orcinus orca*) in

Atlantic Fleet sonar training, the Navy included in its take estimates any harbor porpoise exposed to sound pressure levels above 120 dB. The species' use of near-coastal habitats only adds to its vulnerability. To protect this sensitive species and near-coastal habitat, a robust buffer zone should be applied beyond the 100 m contour, and exercises should be planned to eliminate or minimize ship movements towards shore when sonar systems are active.

- 4) Canyons and Banks of Northern Washington State and Oregon – The “Prairie,” Juan de Fuca Canyon, Swiftsure Bank, Barkley and Nitinat Canyons, and Heceta Bank are used as important feeding habitat for humpback whales and other species. These areas should be avoided at least during the main humpback whale feeding season from June to October.
- 5) Olympic Coast National Marine Sanctuary – As noted in Section II.A and Appendix A, the Sanctuary provides habitat for twenty-nine species of marine mammals, including foraging habitat for Southern Resident killer whales and humpback whales, and other species. A recent NOAA report found that “an increase in Navy activity or areas of operation, if not properly controlled, could have potential to disturb the seabed, introduce pollutants associated with test systems, and produce sound energy that could negatively alter the acoustic environment within the sanctuary.”<sup>45</sup> Any Navy plan for the training range must include measures to eliminate or very substantially limit the number of exercises taking place in Sanctuary waters.

B. Other Mitigation Measures

In addition to the specific protection zones set forth above, the Navy should adopt the following measures:

- 1) Seasonal avoidance of marine mammal feeding grounds, calving grounds, and migration corridors;
- 2) Avoidance of or extra protections in other federal and state marine protected areas, including the Waketickeh Creek Marine Protected Area, Copalis Marine Protected Area, Quillayute Needles Marine Protected Area, and other Marine Protected Areas in the areas considered.

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the coastal waters of British Columbia and Washington. Reports of the International Whaling Commission 12:209-243 (1991).

<sup>45</sup> NOAA, Olympic Coast National Marine Sanctuary, Condition Report 2008 (September 2008).

- 3) Avoidance of bathymetry likely to be associated with high-value habitat for species of particular concern, including submarine canyons and large seamounts, or bathymetry whose use poses higher risk to marine species;
- 4) Avoidance of fronts and other major oceanographic features, such as the California Current and other areas with marked differentials in sea surface temperatures, which have the potential to attract offshore concentration of animals, including beaked whales;<sup>46</sup>
- 5) Avoidance of areas with higher modeled takes or with high-value habitat for particular species;
- 6) Concentration of exercises to the maximum extent practicable in abyssal waters and in surveyed offshore habitat of low value to species;
- 7) Use of sonar and other active acoustic systems at the lowest practicable source level, with clear standards and reporting requirements for different testing and training scenarios;
- 8) Expansion of the marine species “safety zone” to a 4km shutdown, reflecting international best practice, or 2 km, reflecting the standard prescribed by the California Coastal Commission;<sup>47</sup>
- 9) Suspension of relocation of exercises when beaked whales or significant aggregations of other species, such as killer whales, are detected by any means within the orbit circle of an aerial monitor or near the vicinity of an exercise;
- 10) Use of simulated geography (and other work-arounds) to reduce or eliminate chokepoint exercises in near-coastal environments, particularly within canyons and channels, and use of other important habitat;
- 11) Avoidance or reduction of training during months with historically significant surface ducting conditions, and use of power-downs during significant surface ducting conditions at other times;
- 12) Use of additional power-downs when significant surface ducting conditions coincide with other conditions that elevate risk, such as during exercises involving the use of multiple systems or in beaked whale habitat;

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<sup>46</sup> See, e.g., Carretta et al., U.S. Pacific Marine Mammal Stock Assessments: 2007 at 142 (reporting that “Baird’s beaked whales have been seen primarily along the continental slope from late spring to early fall.”).

<sup>47</sup> California Coastal Commission, Adopted Staff Recommendation on Consistency Determination CD-08606 (2007); Approved Letter from M. Delaplaine, California Coastal Commission, to Rear Adm. Len Hearing, Navy (Jan. 11, 2007).

- 13) Planning of ship tracks to avoid embayments and provide escape routes for marine animals;
- 14) Suspension or postponement of chokepoint exercises during surface ducting conditions and scheduling of such exercises during daylight hours;
- 15) Use of dedicated aerial monitors during chokepoint exercises, major exercises, and near-coastal exercises;
- 16) Use of dedicated passive acoustic monitoring to detect vocalizing species, through established and portable range instrumentation and the use of hydrophone arrays off instrumented ranges;
- 17) Modification of sonobuoys for passive acoustic detection of vocalizing species;
- 18) Suspension or reduction of exercises outside daylight hours and during periods of low visibility;
- 19) Use of aerial surveys and ship-based surveys before, during, and after major exercises;
- 20) Use of all available range assets for marine mammal monitoring;
- 21) Use of third-party monitors for marine mammal detection;
- 22) Establishment of long-term research, to be conducted through an independent agent such as the National Fish and Wildlife Foundation, on the distribution, abundance, and population structuring of protected species in the NWTRC, with the goal of supporting adaptive geographic avoidance of high-value habitat. Notably, additional critical habitat is likely to be identified in the NWTRC, and research should be undertaken to identify this critical habitat;
- 23) Application of mitigation prescribed by state regulators, by the courts, by other navies or research centers, or by the U.S. Navy in the past or in other contexts;
- 24) Avoidance of fish spawning grounds and of important habitat for fish species potentially vulnerable to significant behavioral change, such as wide-scale displacement within the water column or changes in breeding behavior;
- 25) Evaluating before each major exercise whether reductions in sonar use are possible, given the readiness status of the strike groups involved;
- 26) Dedicated research and development of technology to reduce impacts of active acoustic sources on marine mammals;

- 27) Establishment of a plan and a timetable for maximizing synthetic training in order to reduce the use of active sonar training;
- 28) Prescription of specific mitigation requirements for individual classes (or sub-classes) of testing and training activities, in order to maximize mitigation given varying sets of operational needs; and
- 29) Timely, regular reporting to NOAA, state coastal management authorities, and the public to describe and verify use of mitigation measures during testing and training activities.

Consideration of these measures is minimally necessary to satisfy the requirements of NEPA, and we note that similar or additional measures may be required under the Marine Mammal Protection Act, Endangered Species Act, and other statutes.

#### V. The Navy Fails to Properly Analyze Cumulative Impacts

In order to satisfy NEPA, an EIS must include a “full and fair discussion of significant environmental impacts.” 40 C.F.R. § 1502.1. It is not enough, for purposes of this discussion, to consider the proposed action in isolation, divorced from other public and private activities that impinge on the same resource; rather, it is incumbent on the Navy to assess cumulative impacts as well, including the “impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future significant actions.” *Id.* § 1508.7. A meaningful cumulative impact analysis must identify (1) the area in which the effects of the proposed project will be felt; (2) the impacts that are expected in that area from the proposed project; (3) other actions—past, present, proposed, and reasonably foreseeable—that have had or are expected to have impacts in the same area; (4) the impacts or expected impacts from these other actions; and (5) the overall impact that can be expected if the individual impacts are allowed to accumulate. *Grand Canyon Trust v. FAA*, 290 F.3d 339, 345 (D.C. Cir. 2002) (quotation and citation omitted). The Navy “cannot treat the identified environmental concern in a vacuum.” *TOMAC v. Norton*, 433 F.3d 852, 863 (D.C. Cir. 2006) (quoting *Grand Canyon Trust*, 290 F.3d at 345).

The Navy’s cumulative impact analysis fails to meet these basic requirements. Nowhere in its cumulative impact analysis does the Navy consider—let alone reach the conclusion—that the *sum* of the various environmental impacts that are enumerated will be limited. DEIS at 4-1 to 34. The Navy’s analysis cannot provide such support because the Navy fails to explain what the sum of these impacts is expected to be. NEPA requires more than just a recital of possible impacts: it requires the Navy to actually analyze the overall impact of the accumulation of individual impacts. *Grand Canyon Trust*, 290 F.3d at 345. The DEIS fails to make this analysis.

The Navy must also consider the full effects of its sonar training. It simply assumes that all behavioral impacts are short-term in nature and cannot affect individuals or populations through repeated activity—even though the anticipated takes at its preferred alternative would affect the same populations.

Nor does the Navy consider the potential for acute synergistic effects from sonar training. Although the DEIS discusses the potential for ship strike in the training area (DEIS 4-24 to 25), it does not consider the greater susceptibility to vessel strike of animals that have been temporarily harassed or disoriented by certain noise sources. The absence of analysis is particularly glaring in light of the Haro Strait incident, in which killer whales and other marine mammals were observed fleeing away from the sonar vessel at high speeds.<sup>48</sup> Neither does the Navy consider the synergistic effects of noise with other stressors in producing or magnifying a stress-response.<sup>49</sup> For these reasons alone, the Navy should have concluded that the cumulative and synergistic impacts from sonar training are significant and focused its efforts to analyze and develop mitigation measures to avoid those impacts.

The Navy acknowledges that the NWTRC is crowded with human and military activities, many of which introduce noise, chemical pollution, debris, and vessel traffic into the habitat of protected species. DEIS at 4-22 to 27. Yet it inexplicably fails to conclude what the cumulative effects will be for all those activities.

Given the scope of the proposed action, the deficiencies of the Navy's cumulative impacts assessment represents a critical failure of the DEIS. At a minimum, the Navy must evaluate the potential for cumulative impacts on populations that would occur in and near the NWTRC, clearly define the extent of expected cumulative impacts, and assess the potential for synergistic adverse effects (such as from noise in combination with ship-strikes).

#### VI. The Navy Fails to Properly Analyze Reasonable Alternatives

NEPA requires agencies to consider alternatives to their proposed actions. To comply with NEPA, an EIS must “inform decision-makers and the public of the reasonable

<sup>48</sup> Christopher Dunagan, Navy Sonar Incident Alarms Experts, Bremerton Sun, May 8, 2003.

<sup>49</sup> A.J. Wright, N. Aguilar Soto, A.L. Baldwin, M. Bateson, C.M. Beale, C.Clark, T. Deak, E.F. Edwards, A. Fernández, A. Godinho, L. Hatch, A. Kakuschke, D. Lusseau, D. Martineau, L.M. Romero, L. Weigart, B. Wintle, G. Notarbartolo di Sciarra, and V. Martin, Do marine mammals experience stress related to anthropogenic noise?, 20 International Journal of Comparative Psychology, 274-316 (2007); see also Andrew J. Wright, Natacha Aguilar Soto, Ann L. Baldwin, Melissa Bateson, Colin M. Beale, Charlotte Clark, Terrence Deak, Elizabeth F. Edwards, Antonio Fernández, Ana Godinho, Leila Hatch, Antje Kakuschke, David Lusseau, Daniel Martineau, L. Michael Romero, Linda Weigart, Brendan Wintle, Giuseppe Notarbartolo-di-Sciarra, and Vidal Martin, Anthropogenic noise as a stressor in animals: a multidisciplinary perspective, 20 International Journal of Comparative Psychology, 250-273 (2007).

alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment.” 40 C.F.R. § 1502.1. This alternatives requirement has been described in regulation as “the heart of the environmental impact statement.” *Id.* § 1502.14. The courts describe the alternatives requirement equally emphatically, citing it as the “linchpin” of the EIS. *Monroe County Conservation Council v. Volpe*, 472 F.2d 693 (2d Cir. 1972). The agency must therefore “[r]igorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.” 40 C.F.R. § 1502.14(a). Consideration of alternatives is required by (and must conform to the independent terms of) both sections 102(2)(C) and 102(2)(E) of NEPA. Here, the Navy's alternatives analysis misses the mark.

#### A. Failure to Identify Environmental Impact-Based Alternatives

The Navy claims it “considers potential environmental impacts” while executing its responsibilities under federal law, including NEPA. DEIS at 1-1. But the Navy's alternatives were not selected to “inform decision-makers and the public” of how the Navy could “avoid or minimize adverse impacts or enhance the quality of the human environment.” 40 C.F.R. § 1502.1. Instead, as discussed in the DEIS and below, the Navy chose alternatives based on factors unrelated to the proposed action's environmental impacts.

Further, at no point in the DEIS does the Navy discuss how the alternatives pose different environmental choices for the public and decisionmakers. The DEIS fails entirely to comply with NEPA's regulations, requiring the Navy to “present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among option by the decisionmaker and the public.” 40 C.F.R. § 1502.14. The Navy fails to sharply define the environmental issues applicable to each alternative and include these differences in a comparison of alternatives. There is simply no comparison of the risks and benefits of each alternative site showing what is and is not known and what species and habitats would be most at risk from each alternative.

#### B. Identification of Alternative Sites

The DEIS does not include any discussion of alternative sites, instead proposing a No Action alternative (maintaining the current level of activities), Alternative 1 (increasing training activities and force structure changes), and the preferred Alternative 2 (increasing training activities, force structure changes and range enhancements). The Navy's analysis is devoid of geographic alternatives. The information the Navy does include indicates that factors of convenience and cost dominated the decision. Factors of mere convenience alone cannot dictate an agency's choice of alternatives to evaluate in an EIS. An agency must discuss all reasonable alternatives—those that will accomplish the purpose and need of the agency and are practical and feasible—not simply those it finds most convenient. 40 C.F.R. § 1502.14. “The primary purpose of the impact statement is to compel federal agencies to give serious weight to

environmental factors in making discretionary choices.” *I-291 Why? Ass’n v. Burns*, 372 F.Supp. 233, 247 (D. Conn. 1974). If an agency is permitted to consider and compare the environmental impacts of its proposed action with only equally convenient alternatives—and permitted to omit from such analysis any alternatives that are less convenient, no matter that they might result in significant environmental benefits—this purpose would be thwarted.

Carefully siting the activities proposed to occur in the range to avoid concentrations of vulnerable and endangered species and high abundances of marine life is the most critical step the Navy can take in reducing the environmental impacts of this project. Because the Navy has failed to undertake an alternatives analysis that allows it to make an informed siting choice, however, the DEIS is inadequate and must be revised.

### C. Other Reasonable Alternatives

The DEIS fails to consider any alternatives beyond increasing the level of training. Therefore, many reasonable alternatives are missing from the Navy’s analysis that might fulfill that purpose while reducing harm to marine life and coastal resources. For example:

(1) The DEIS fails entirely to consider seasonal restrictions on the use of the range. Instead, all of the action alternatives propose year-round use without regard to seasonal variations in marine mammal and fish abundance. This is true despite the well-documented seasonal migrations of numerous endangered species. For example, the Southern Resident killer whale population is concentrated in the Greater Puget Sound area during the summer and autumn months, and is found along the Washington Coast at other times of the year. Studies have shown that killer whales engage in dramatic flight behavior in response to mid-frequency signals.<sup>50</sup> Yet the DEIS fails even to consider the feasibility of avoiding the whales’ seasonal habitat, or any other seasonal variation in marine life abundance (such as migration routes). Omitting even the mere *consideration* of any alternative that recognizes the need to protect endangered and sensitive marine life is unacceptable.

(2) The DEIS fails to include a range of mitigation measures among its alternatives. Many such measures have been employed by the U.S. Navy in other contexts, as discussed in Section IV; and there are many others that should be considered. Such measures are reasonable means of reducing harm to marine life and other resources on the proposed range, and their omission from the alternatives analysis renders that analysis inadequate.

<sup>50</sup> See, e.g., NMFS, Assessment of Acoustic Exposures on Marine Mammals in Conjunction with USS Shoup Active Sonar Transmissions in the Eastern Strait of Juan de Fuca and Haro Strait, Washington—5 May 2003 at 4-6 (2005).

(3) The Navy declines to consider a reduction in the level of proposed training in the NWTRC. Yet the Navy’s assumption that sonar exercises must occur at the level proposed may well be an artifact of the Navy’s Tactical Training Theater Assessment and Planning Program (TAP) process, which, in requiring separate environmental analysis of existing ranges and operating areas, seems to assume *a priori* that exercises cannot be reapportioned.

(4) The Navy’s statement of purpose and need contains no language that would justify the limited set of alternatives that the Navy considers (or the alternative it ultimately prefers). Yet it is a fundamental requirement of NEPA that agencies preparing an EIS specify their project’s “purpose and need” in terms that do not exclude full consideration of reasonable alternatives. 40 C.F.R. § 1502.13; *City of Carmel-by-the-Sea v. United States Dep’t of Transp.*, 123 F.3d 1142, 1155 (9th Cir. 1997) (citing *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C. Cir. 1991)). “The existence of a viable but unexamined alternative renders an environmental impact statement inadequate,” *Idaho Conservation League v. Mumma*, 956 F.2d 1508, 1519 (9th Cir. 1992), and an EIS errs when it accepts “as a given” parameters that it should have studied and weighed. *Simmons v. U.S. Army Corps of Eng’rs*, 120 F.3d 664, 667 (7th Cir. 1997).

In sum, the DEIS shortchanges or omits from its analysis reasonable alternatives that might achieve the Navy’s core aim of testing and training while minimizing environmental harm. For these reasons, we urge the Navy to revise its DEIS to adequately inform the public of all reasonable alternatives that would reduce adverse impacts to whales, fish, and other resources. 40 C.F.R. § 1502.1.

### VII. The Navy Fails to Analyze the Impacts on Wildlife Viewing Interests and Recreation

Just as it fails to consider the direct, indirect, and cumulative impacts of the NWTRC on the region’s marine mammals and other fish and wildlife, the DEIS does not adequately consider the NWTRC’s effects on wildlife viewing and other wildlife-dependent recreational interests. The DEIS makes no mention of the value lost from the harm to marine mammals that attract a number of our organizational members and members of the public to the potentially affected areas of the Pacific Northwest. Nor does it address the potential economic value lost from decreased tourism, particularly those areas centered on observing whales and other marine mammals in their natural habitats.<sup>51</sup> Neither does it address the effects of increased and low-level flights on backcountry recreation in areas where people fish, hunt, hike, backpack, ski, and test their survival skills in a wild environment.

<sup>51</sup> For example, NMFS observed in a recent Draft Biological Opinion, “Southern Residents are the primary driver for a multi-million dollar whale watching industry in the Pacific Northwest.” See NMFS, Draft Biological Opinion for the Long-Term Central Project and State Water Project Operations Criteria and Plan at 111 (Dec. 11, 2008).

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One of NEPA's explicit purposes is to "assure esthetically and culturally pleasing surroundings," 42 U.S.C. 4331(b)(2), and caselaw makes clear that an agency must adequately consider such recreational impacts in its NEPA analysis. *See, e.g., Lujan v. NWF*, 497 U.S. 871, 887 (1990) ("no doubt that recreational use and aesthetic enjoyment are among the sorts of interests NEPA [was] specifically designed to protect"); *LaFlamme v. FERC*, 852 F.2d 389, 401 (1988) (because "there were substantial questions raised regarding whether the project may significantly affect recreational use in the project area, and that FERC failed to explain or discuss" these impacts, the court found that "this record reflects a decision which is neither 'fully informed or well-considered,'" and therefore concluded the agency's decision not to prepare an EIS was unreasonable).

#### VIII. Project Description and Meaningful Public Disclosure

Disclosure of the specific activities contemplated by the Navy is essential if the NEPA process is to be a meaningful one. *See, e.g., LaFlamme v. F.E.R.C.*, 852 F.2d 389, 398 (9th Cir. 1988) (noting that NEPA's goal is to facilitate "widespread discussion and consideration of the environmental risks and remedies associated with [a proposed action]"). As several groups and individuals identified in their scoping comments, the overall level of detail about the Navy's actions revealed in this process is a far cry from previous EISs and is so general as to undermine the ability to provide meaningful comment.<sup>52</sup>

With regard to noise-producing activities, for example, the Navy must describe source levels, frequency ranges, duty cycles, and other technical parameters relevant to determining potential impacts on marine life. The DEIS provides some of this information, but it fails to disclose sufficient information about active sonobuoys, acoustic device countermeasures, training targets, or range sources that would be used during the exercises. DEIS at 2-11 to 12. And the DEIS gives no indication of platform speed, pulse length, repetition rate, beam widths, or operating depths—that is, most of the data that the Navy used in modeling acoustic impacts.

The Navy—despite repeated requests—has not released or offered to release CASS/GRAB or any of the other modeling systems or functions it used to develop the biological risk function or calculate acoustic harassment and injury. *See, e.g.*, DEIS at Appendix D.

In addition, the DEIS makes repeated reference to a Biological Evaluation ("BE") that the Navy prepared to catalog the effects of its proposed alternatives on species listed as threatened or endangered under the Endangered Species Act. The BE was not included in the DEIS and is not available on the Navy's website. The omission of the BE has

<sup>52</sup> See September 28, 2007 Comments from Center For Biological Diversity, Dr. David Bain, Earthjustice, Fred Felleman, WAVE Consulting, Friends of the San Juans, National Wildlife Federation, Natural Resources Defense Council, People for Puget Sound, Save Our Wild Salmon, South Sound Orca Advocates, and Val Veirs, Ph.D., at 3-4 and attachments (noting level of detail in Navy's activities contained in Olympic National Marine Sanctuary EIS).

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severely curtailed the public's ability to meaningfully evaluate and comment upon the effects of the alternatives. The Navy has also ignored repeated Freedom of Information Act requests regarding information and reports cited in the DEIS.

These models, reports, and requests for information must be made available to the public, including the independent scientific community, for public comment to be meaningful under NEPA and the Administrative Procedure Act. 40 C.F.R. §§ 1502.9(a), 1503.1(a) (NEPA); 5 U.S.C. § 706(2)(D) (APA). In addition, guidelines adopted under the Data (or Information) Quality Act also require their disclosure. The Office of Management and Budget's guidelines require agencies to provide a "high degree of transparency" precisely "to facilitate reproducibility of such information by qualified third parties" (67 Fed. Reg. 8452, 8460 (Feb. 22, 2002)); and the Defense Department's own data quality guidelines mandate that "influential" scientific material be made reproducible as well. We encourage the Navy to contact us immediately to discuss how to make this critical information available.

#### IX. Scope of Review

We are also concerned about the Navy's understanding of its obligations under applicable law. The Navy indicates that its analysis of "extraterritorial" activities, those activities that would take place outside U.S. territorial waters, was prepared under the authority of Executive Order 12114 rather than under NEPA. *See* DEIS at ES-6 to 7. Not only is this position on the scope of review inconsistent with the statute (*see, e.g., Environmental Defense Fund v. Massey*, 968 F.2d 528 (D.C. Cir. 1994) and *NRDC v. Navy*, No. CV-01-07781, 2002 WL 32095131 at \*9-12 (C.D. Cal. Sept. 19, 2002)), but, insofar as it represents a broader policy, it provides further indication that current operations are likewise out of compliance. Most of the area used for sonar training is sited beyond the 12nm territorial boundary, within the U.S. Exclusive Economic Zone. If, as we expect, activities currently taking place there have not received their due analysis in a prior environmental impact statement, then the Navy is operating in ongoing violation of NEPA.

#### X. Compliance With Other Applicable Laws

A number of other statutes and conventions are implicated by the proposed activities. Among those that must be disclosed and addressed during the NEPA process are the following:

- (1) The Marine Mammal Protection Act ("MMPA"), 16 U.S.C. § 1361 et seq., which requires the Navy to obtain a permit or other authorization from NMFS or the U.S. Fish and Wildlife Service prior to any "take" of marine mammals. The Navy must apply for an incidental take permit under the MMPA, and NRDC will submit comments regarding the Navy's application to NMFS at the appropriate time.

(2) The Endangered Species Act, 16 U.S.C. § 1531 et seq., which requires the Navy to enter into formal consultation with NMFS or the U.S. Fish and Wildlife Service, and receive a legally valid Incidental Take Permit, prior to its “take” of any endangered or threatened marine mammals or other species, including fish, sea turtles, and birds, or its “adverse modification” of critical habitat. *See, e.g.*, 1536(a)(2); *Romero-Barcelo v. Brown*, 643 F.2d 835 (1st Cir. 1981), *rev’d on other grounds*, *Weinberger v. Romero-Carcelo*, 456 U.S. 304, 313 (1982). Given the scope and significance of the actions and effects it proposes, the Navy must engage in formal consultation with NMFS and the U.S. Fish and Wildlife over the numerous endangered and threatened species in the NWTRC.

(3) The Coastal Zone Management Act, and in particular its federal consistency requirements, 16 U.S.C. § 1456(c)(1)(A), which mandate that activities that affect the natural resources of the coastal zone—whether they are located “within or outside the coastal zone”—be carried out “in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved State management programs.” The Navy must fulfill its CZMA commitments along the Washington, Oregon and California coasts.

(4) The Magnuson-Stevens Fisheries Conservation and Management Act, 16 U.S.C. § 1801 et seq. (“MSA”), which requires federal agencies to “consult with the Secretary [of Commerce] with respect to any action authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken” that “may adversely affect any essential fish habitat” identified under that Act. 16 U.S.C. § 1855 (b)(2). In turn, the MSA defines essential fish habitat as “those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity.” 16 U.S.C. § 1802 (10). The NTWRC contains such habitat. As discussed at length above, anti-submarine warfare exercises alone have the significant potential to adversely affect at least the waters, and possibly the substrate, on which fish in these areas depend. Under the MSA, a thorough consultation is required.

(5) The Marine Protection, Research and Sanctuaries Act, 33 U.S.C. § 1401 et seq., which requires federal agencies to consult with the Secretary of Commerce if their actions are “likely to destroy, cause the loss of, or injure any sanctuary resource.” 16 U.S.C. § 1434(d)(1). Since the Navy’s exercises would cause injury and mortality of species, consultation is clearly required if sonar use takes place either within or in the vicinity of the sanctuary or otherwise affects its resources. Since sonar may impact sanctuary resources even when operated outside its bounds, the Navy should indicate how close it presently operates, or foreseeably plans to operate, to such sanctuary and consult with the Secretary of Commerce as required.

In addition, the Sanctuaries Act is intended to “prevent or strictly limit the dumping into ocean waters of any material that would adversely affect human

health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities” (33 U.S.C. § 1401(b)), and prohibits all persons, including Federal agencies, from dumping materials into ocean waters, except as authorized by the Environmental Protection Agency. 33 U.S.C. §§ 1411, 1412(a). The Navy has not indicated its intent to seek a permit under the statute.

(6) The Migratory Bird Treaty Act, 16 U.S.C. § 703 et seq. (“MBTA”), which makes it illegal for any person, including any agency of the Federal government, “by any means or in any manner, to pursue, hunt, take, capture, [or] kill” any migratory birds except as permitted by regulation. 16 U.S.C. § 703. After the District Court for the D.C. Circuit held that naval training exercises that incidentally take migratory birds without a permit violate the MBTA, (see *Center for Biological Diversity v. Pirie*, 191 F. Supp. 2d 161 (D.D.C. 2002) (later vacated as moot)), Congress exempted some military readiness activities from the MBTA but also placed a duty on the Defense Department to minimize harms to seabirds. Under the new law, the Secretary of Defense, “shall, in consultation with the Secretary of the Interior, identify measures-- (1) to minimize and mitigate, to the extent practicable, any adverse impacts of authorized military readiness activities on affected species of migratory birds; and (2) to monitor the impacts of such military readiness activities on affected species of migratory birds.” Pub.L. 107-314, § 315 (Dec. 2, 2002). As the Navy acknowledges, migratory birds occur within the NWTRC. The Navy must therefore consult with the Secretary of the Interior regarding measures to minimize and monitor the effects of the proposed range on migratory birds, as required.

(7) Executive Order 13158, which sets forth protections for marine protected areas (“MPAs”) nationwide. The Executive Order defines MPAs broadly to include “any area of the marine environment that has been reserved by Federal, State, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein.” E.O. 13158 (May 26, 2000). It then requires that “[e]ach Federal agency whose actions affect the natural or cultural resources that are protected by an MPA shall identify such actions,” and that, “[t]o the extent permitted by law and to the maximum extent practicable, each Federal agency, in taking such actions, shall avoid harm to the natural and cultural resources that are protected by an MPA.” *Id.* The Navy must therefore consider and, to the maximum extent practicable, must avoid harm to the resources of all federally- and state-designated marine protected areas.

The proposed activities also implicate the Clean Air Act and Clean Water Act as well as other statutes protecting the public health. The Navy must comply with these and other laws.

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**XI. Conflicts with Federal, State and Local Land-Use Planning**

NEPA requires agencies to assess possible conflicts that their projects might have with the objectives of federal, regional, state, and local land-use plans, policies, and controls. 40 C.F.R. § 1502.16(c). The Navy's training and testing activities may affect resources in the coastal zone and within other state and local jurisdictions, in conflict with the purpose and intent of those areas. The consistency of Navy operations with these land-use policies must receive more thorough consideration.

**XII. Conclusion**

For the reasons set forth above, we urge the Navy to satisfy its obligations under NEPA and other applicable laws. To that end, the Navy should revise its DEIS, improving its impacts and alternatives analysis and establishing temporal and geographic protection zones to mitigate the harmful impacts of its training.

Thank you for your consideration of our comments, and we welcome the opportunity to discuss this matter with you at any time.

Sincerely,



Taryn Kiekow  
Staff Attorney

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**APPENDIX A**

**RECOMMENDATIONS FOR MARINE PROTECTION ZONES IN THE  
NORTHWEST TRAINING RANGE COMPLEX**

Thirty-seven species of marine mammals (seven mysticetes, 21 odontocetes, eight pinnipeds, and one additional carnivore) are known to occur in the area of the Pacific Northwest, although only 26 of these species regularly occur there – the rest are either rare or extralimital in the area. The vast majority of these species are cetaceans (whales, dolphins, and porpoises), although there are also a number of pinnipeds (seals, sea lions, and walrus) and a single fissiped carnivore (the sea otter *Enhydra lutris*).

Until the late 1960s and early 1970s, very little was known about marine mammals in the Pacific Northwest area. For the most part, only information from occasional strandings and specimen collections, along with miscellaneous opportunistic at-sea observations, were available (Scheffer and Slipp 1948; Wahl 1977; Stroud and Roffe 1979). The most detailed sighting information was from opportunistic records of biologists doing pelagic fur seal research, but the data were very sparse (Fiscus and Niggol 1965). Because of their coastal nature and frequent interaction with fisheries, pinnipeds received the bulk of the research interest (see Scheffer and Slipp 1944; Mate 1973; Everitt 1980; Everitt and Beach 1982; Steiger and Calambokidis 1986; Steiger et al. 1989; Huber et al. 2001).

Interest in marine mammals (especially cetaceans) dramatically increased in the early 1970s, with the passage of the Marine Mammal Protection Act and Endangered Species Act. Most early studies in the 1970s, 1980s, and early 1990s were conducted in the inshore waters of Greater Puget Sound, where the focus was on several species: harbor porpoises (Flaherty 1982; Raum-Suryan and Harvey 1988), Dall's porpoises (Miller 1989, 1990), minke whales (Dorsey 1983; Stern et al. 1990), and in particular killer whales (Balcomb et al. 1980; Bigg 1982; Balcomb and Bigg 1986; Olesiuk et al. 1990; Bigg et al. 1990). The killer whale studies in inshore waters of Washington State and southern British Columbia, Canada, were (and remain) the most detailed and comprehensive research done on the species anywhere in the world (see Krahn et al. 2002).

Throughout this time, other than for a few specific studies to examine the status of harbor porpoises on the outer coast (Barlow 1988; Barlow et al. 1988; Gearin et al. 1994; Osmeck et al. 1996), very little work was being done on the marine mammals of the open coasts of Washington and Oregon. However, with a set of ship surveys in 1989-1990 (Brueggeman 1992) and then a follow-up set of aerial surveys in 1992 (Green et al. 1993), we began to learn about marine mammals in the offshore waters of Oregon and Washington, and the first estimates of abundance for some species became available. However, these surveys still did not have good coverage of offshore waters of the outer continental shelf and slope.

In the summer of 1994, the Southwest Fisheries Science Center (SWFSC) conducted a set of experimental surveys off Oregon and Washington (Forney and Barlow 1994). A number of important sightings were made, but the data from these surveys remain largely unpublished and unavailable. It was not until 1996 that a large-scale set of surveys covering waters of virtually the entire U.S. EEZ were conducted by the SWFSC, and similar sets of surveys have been conducted every several years since then. The data from these latter surveys now provide information on the abundance of most species of cetaceans from the outer coast of Oregon and Washington (Barlow 2003; Barlow and Forney 2007). Calambokidis et al. (2004) recently combined focused surveys with data collected on the above surveys to clarify status of several species off Washington, and Norman et al. (2004) recently conducted a comprehensive analysis of stranding records for both Oregon and Washington.

Based on the above, we now have some understanding of the distribution and habitat preferences of most species of marine mammals that occur in the Pacific Northwest study area.

#### SPECIES OF PARTICULAR CONCERN

At least 15 marine mammal species occurring on the Northwest Pacific range should be regarded as of particular concern: those that are listed as Threatened or Endangered under the Endangered Species Act, and those that are considered particularly vulnerable to acoustic impacts due to small population sizes, localized habitat, or strong susceptibility to anthropogenic noise. These are the North Pacific right whale, blue whale, fin whale, sei whale, humpback whale, sperm whale, five species of beaked whales, killer whale, harbor porpoise, Steller sea lion, and sea otter. Areas in which these species are known to concentrate should be avoided. Among these species are:

##### **Blue whale (*Balaenoptera musculus*)**

The blue whale is listed as Endangered under the ESA, as well as on the IUCN Red List (Reeves et al. 2003). As the largest animals on earth, these creatures were heavily hunted to commercial extinction in the 20th century, but since cessation of whaling for this species, have shown evidence of recovery in many areas of their range. Blue whales were historically found throughout much of the Pacific Northwest area, at least seasonally, and the west coast stock currently numbers about 1,744 whales (CV = 28%) (Carretta et al. 2007). The population has clearly increased since the mid-20<sup>th</sup> century, but in recent years evidence for a continued increase is equivocal (Carretta et al. 2007).

Both visual and auditory data indicate the presence of blue whales along the entire west coast, though primary feeding areas for blue whales along the U.S. west coast appear to be in California waters. Sightings are occasionally made off the coast of Oregon, although sightings off Washington appear to be rare (Carretta et al. 2007). A blue whale was recently observed and photographed about 40 miles off the coast of Westport, WA near the Gray's Harbor Canyon.<sup>53</sup> In addition, acoustic contacts are also

<sup>53</sup> <http://www.cascafiaresearch.org/WestportBm20090113.htm>

sometimes made off Oregon (McDonald et al. 1994; Stafford et al. 1998), and this suggests that the species may occur there more often than sighting records indicate.

##### **Humpback whale (*Megaptera novaeangliae*)**

The humpback whale is listed as Endangered under the ESA, and as Vulnerable on the IUCN Red List (Reeves et al. 2003).

Although humpbacks have not been studied as intensively off Oregon and Washington as they have further south off California, annual feeding does occur in the Pacific Northwest study area, mostly within about 100 nautical miles of the coast (Carretta et al. 2007). Humpback whales are the most common large whale species seen off northern Washington in summer. Line transect surveys suggest that in most years between 1995 and 2000, approximately 100 humpback whales were present off northern Washington, but in 2002 the estimate increased to over 500 whales (Calambokidis et al. 2004). There is limited interchange of whales from this area with those further south in Oregon and California, suggesting the existence of a more-or-less distinct feeding aggregation in these waters (Calambokidis et al. 2004). Within their study site off the Olympic Peninsula, Calambokidis et al. (2004) found humpback whales to occur mostly in the northern part of the area, in a region informally known as the "Prairie." Other areas of concentration are near the mouth of Juan de Fuca Canyon, Swiftsure Bank, and an area between Barkley and Nitnat canyons (Calambokidis et al. 2004), all in Washington, and Heceta Bank, off Oregon (Green et al. 1992).

Humpbacks occupy the Pacific Northwest study area primarily in the summer (and to a lesser extent, autumn) seasons. In winter and spring months, west-coast humpbacks migrate to their breeding grounds in Mexico and Central America, although the exact migration corridor is not well known (Calambokidis et al. 2001). The evidence for a more-or-less-distinct feeding aggregation off northern Washington dictates that special caution be exercised in this area.

##### **Sperm whale (*Physeter macrocephalus*)**

The sperm whale is listed as Endangered under the ESA and as Vulnerable on the IUCN Red List (Reeves et al. 2003). The period of most intense whaling activity targeting this species was in the 1800s (see Whitehead 2003); however, there are new threats to some populations, which may be affecting the animals to an unknown degree (see below). There are probably over 50,000 sperm whales in the eastern North Pacific, although the California/Oregon/Washington stock of sperm whales numbers only about 1,233 (CV = 41%) whales, and is quite variable, not showing any obvious trends in abundance (Barlow 2003; Carretta et al. 2007). The degree of interchange with concentrations of the species further offshore is not well known.

The sperm whale is largely a deep-water species, generally found past the edge of the continental shelf, although sperm whales do occasionally move close to coastlines (Rice 1989). Other areas of the world where concentrations of these whales occur are usually characterized by steep bottom topography near continental margins (e.g., canyons cutting into the continental shelf, steep slopes of oceanic archipelagos, offshore banks

and seamounts). Although such types of habitats exist in the study area, sperm whales in the area appear to be very widely scattered in offshore waters, and there are not any areas of known concentration of sperm whales in the main study area. Although large numbers of sperm whales exist within several thousand miles of the west coast, sightings near the coast are not particularly common (Carretta et al. 2007). For instance, sperm whales were not seen by Calambokidis et al. (2004) in their line transect study off northern Washington.

Sperm whales were the major targets of American commercial whaling operations in the 1800s, and continued to be heavily hunted in the eastern North Pacific in the 1900s. More than 318,800 sperm whales were reported killed in the North Pacific Ocean between 1800 and 1987 (Carretta et al. 2007). And there was massive under-reporting of catches by Soviet and Japanese operations, and the true total taken was probably at least 436,000 sperm whales (Brownell et al. 1998). A commercial whaling moratorium brought the hunt to a close in 1987. The lingering effects of these massive (and not fully-documented) takes, along with concerns about fishery bycatches and impacts from human-caused noise give biologists cause for concern about the status and recovery of sperm whale stocks in the North Pacific.

#### **Beaked whales (family Ziphiidae)**

The Ziphiidae is a large family of medium-sized whales, which are generally the most poorly known of all the cetaceans. This is at least partially related to their preference for deep, offshore waters (Heyning 1989; Mead 1989). At least five species occur in the Pacific Northwest area: Baird's beaked whale *Berardius bairdii*, Cuvier's beaked whale *Ziphius cavirostris*, Hubbs' beaked whale *Mesoplodon carlhubbsi*, Blainville's beaked whale *Mesoplodon densirostris*, and Stejneger's beaked whale *Mesoplodon stejnegeri*. Two additional species, Perrin's beaked whale *Mesoplodon perrini* and the Ginkgo-toothed beaked whale *Mesoplodon ginkgodens*, occur just south of the study area and could potentially move into the area (MacLeod et al. 2006). Like the *Kogia* spp., ziphiid species are often confused with each other and many records are not accurately identified to species (see Jefferson et al. 2008). For these reasons, they are often treated as a single group.

Little is known about abundance trends for beaked whales; most populations are considered "data deficient" by the IUCN. They are of particular concern here due to their recognized vulnerability to military sonar activities (see, e.g., Claridge 2006; Cox et al. 2006). Estimated abundance of Baird's beaked whales in U.S. west coast waters is 228 whales (CV = 51%), for Cuvier's beaked whales is 1,884 (CV = 68%), and for combined *Mesoplodon* spp. is 1,247 (CV = 92%) animals (Carretta et al. 2007).

The most detailed studies on beaked whale habitat preferences have been done in the Atlantic Ocean, off the Bahamas (MacLeod et al. 2004; MacLeod and Zuur 2005; Claridge 2006) and in the Mediterranean (Cañadas et al. 2002; Moulins et al. 2007), although there has been some work done in Hawaii (Baird et al. 2006) and the eastern tropical Pacific (Ferguson et al. 2006) as well.

All beaked whales are largely oceanic in distribution, and occur almost exclusively offshore of the shelf edge, and sightings are dispersed. They also seem to prefer waters with a sloping seabed (MacLeod 2005). In some areas, such as the Gulf of Mexico, there is a slight concentration in very deep waters with a depth range of about 1,000-3,000 m (Maze-Foley and Mullin 2006). Beaked whales of the genus *Mesoplodon* (mostly Blainville's) have been found to prefer relatively shallower waters (mostly less than 1,000 m (MacLeod and Zuur 2005; MacLeod et al. 2004; Claridge 2006; Baird et al. 2004, 2006), while Cuvier's beaked whales were found to prefer deeper waters greater than 1,000 m in depth (to more than 2,000 m) (Cañadas et al. 2002; MacLeod et al. 2004; Baird et al. 2005; Moulins et al. 2007). Cuvier's were most often seen in waters with a slope of 11-31 m/km (Moulins et al. 2007).

It is worth noting that during a 1994 marine mammal survey conducted by NOAA Fisheries off the coasts of Oregon and Washington (see Forney and Brownell 1996), several beaked whale sightings were made. On one spectacular day (27 July 1994), 17 beaked whale sightings were made, about half of them *Ziphius cavirostris* and the other half *Mesoplodon* spp. At least one of the mesoplodont sightings was of a group containing an adult male and the unique diagnostic characters of *M. carlhubbsi* could be clearly seen. Most of the beaked whale sightings were in an area of slick water (perhaps a large eddy), with abundant seabirds, tunas, baitfish, and surface invertebrates (T. A. Jefferson and R. L. Pitman, pers. obs.). It is unknown if this day was an anomalous event, but clearly there are reasonably large numbers of Cuvier's and mesoplodont beaked whales in this general area, at least some of the time.

There are no particular areas of known concentration for beaked whales in the area, but most species appear to have a general preference for waters of the lower continental slope. This habitat preference is probably most apparent for the Baird's beaked whale, which appears to have a strong preference for continental slope and seamount areas. However, Ferguson (2005) cautioned that the standard definition of beaked whale habitat used in the past tends to be too narrow, and these animals can actually be found in a wide range of conditions, from slopes to abyssal plains, and from well-mixed to highly-stratified (see also Ferguson et al. 2006). More work is clearly needed to accurately identify critical habitats for these animals in the Pacific Northwest area (see Ward et al. 2005), and any Navy plan for the Northwest Pacific should include a commitment to conduct fine-scale surveys and to avoid areas with beaked whale concentrations.

There is very little dive depth information available for any of the beaked whales, but recent studies using suction-cup time-depth recorders have shown that Blainville's beaked whales are capable of diving to at least 1,408 m, and Cuvier's beaked whales are capable of diving to at least 1,450 m (Baird et al. 2006). Due to their estimated low abundance, apparent concentration in deep water, and the high susceptibility of beaked whales to mid-frequency military sonar (see MacLeod and d'Amico 2006), a very conservative approach must be taken to protecting these animals.

**Killer whale (*Orcinus orca*)**

Killer whales are the most cosmopolitan of all cetacean species, and they have been recorded in virtually all marine waters, and even in some brackish and freshwater areas (Dahlheim and Heyning 1999). There are three different forms or ecotypes (these may eventually be listed as separate subspecies or even species) of killer whales that occur regularly in the Pacific Northwest study area: (1) southern residents, (2) transients, and (3) offshore residents. Total abundance of killer whales in U.S. west coast waters is estimated at 466 for the offshore resident form, 314 for transients, and the southern resident stock numbers roughly 80 whales (Angliss and Outlaw 2007; Carretta et al. 2007). In 2005, the southern resident population was listed as Endangered under the ESA (Carretta et al. 2007).

Eastern North Pacific transient killer whales range widely up and down the west coast, from California to Southeast Alaska, and the Pacific Northwest is used as an important part of their range. They probably occur throughout the entire study area, including the inshore waters of Greater Puget Sound, which they use for foraging on their primary prey, marine mammals (mostly harbor seals – Angliss and Outlaw 2007). The Eastern North Pacific offshore stock is less well known, due to its recent discovery. These animals have been sighted in widely-scattered locations off the coasts of California, Oregon and Washington, although they appear to be concentrated further offshore than the other forms and do not generally use the inshore waters of Greater Puget Sound or Haro Strait (Carretta et al. 2007). They, like the southern residents, appear to be fish-eaters. Both populations have been observed off the Olympic Peninsula of northern Washington (Calambokidis et al. 2004).

The southern resident stock is apparently a coastal population that ranges along the North American west coast from southeast Alaska to central California. However, the vast majority of sightings in summer/autumn months occur in the inshore waters of Washington and southern British Columbia (Greater Puget Sound). They feed extensively on the summer runs of salmon, which return to their natal streams to spawn, during the months of June to October, in the calm, protected waters. They have also been sighted in the open waters off the Olympic Peninsula in summer (Calambokidis et al. 2004). Anthropogenic noise is an issue of concern for all three populations of killer whales, and is of particular concern for the southern resident stock, which has a small population size and is considered to be at significant risk of extinction (Krahn et al. 2004).

**Harbor porpoise (*Phocoena phocoena*)**

The harbor porpoise, in the Pacific Ocean, is characterized by relatively small populations and very coastal habitats, making it highly vulnerable to human-caused impacts. There are six management stocks recognized by NOAA Fisheries in U.S. west coast waters, and two of them are of interest here: (1) the Oregon/Washington coast stock and (2) the Washington Inland Waters stock (Carretta et al. 2007). The Oregon/Washington coast stock is estimated to number 37,745 porpoises (CV=38%), and the Washington Inland Waters stock is estimated at 10,682 porpoises (Calambokidis et al. 2007).

The Oregon/Washington coast stock ranges along the outer coasts of Washington and Oregon, from the entrance of Haro Strait south to Cape Blanco and to about 50 km offshore. These animals are most common in the nearshore, shallow waters less than 100 m deep. The Washington Inland Waters stock is found in inshore waters of Greater Puget Sound, from the entrance of Haro Strait to southern Puget Sound and north to the U.S. border with Canada. Harbor porpoises are known for their high sensitivity to a range of anthropogenic sounds (e.g., Kastelein et al. 2005, 2006; NMFS 2005; Olesiuk et al. 2002).

**RECOMMENDATIONS FOR PROTECTION ZONES**

There are many protected areas around the world that provide some measure of protection of important habitat for marine mammals (see Hoyt 2005). Such areas, large and small, exist in at least 102 different coastal and even some land-locked countries (see Hoyt 2005). Based on our preliminary analysis, we call for the following exclusion areas for sonar in the Northwest Pacific:

1) All inshore waters of Greater Puget Sound (including the Strait of Juan de Fuca and Strait of Georgia) – This area is one of the most important habitats for the Southern Resident community of killer whales (and their nearly-exclusive habitat in summer/autumn months). The population is listed as Endangered under the ESA. In addition, Greater Puget Sound also constitutes important habitat for many other marine mammal species, including minke whales, harbor porpoises, Dall's porpoises, and several species of pinnipeds. Another issue is that the enclosed nature of the Sound, with its many steep, reflective rock walls, heightens concerns about the behavior of sonar signals in this area (see NMFS 2005, noting the effects of reverberation).

2) Lower Continental Slope waters between the 500 and 2,000 m depth contours – This area represents the most important habitat for beaked whales in the area. There is good supporting evidence for their preference for this type of habitat (see above), and due to the year-round presence of these animals, protection should occur throughout the year. Any Navy plan for the Northwest Pacific should, *at minimum*, avoid areas within this bathymetric range with unusual bottom topography (such as canyons), and should include a firm, multi-year commitment to sponsor fine-scale surveys with the aim of identifying important beaked whale habitat for avoidance.

3) Outer coastal waters between the shoreline and the 100 m depth contour (and buffer zone) – This area, bounded by the mainland shoreline and the 100 m contour, represents vital habitat for two discrete populations of harbor porpoise. The species is known for its high sensitivity to acoustic sources, responding strongly to various sources of anthropogenic noise at pressure levels well below 140 dB re 1  $\mu$ Pa (Kastelein et al. 2005, 2006; NMFS 2005; Olesiuk et al. 2002). Indeed, for its EIS on Atlantic Fleet sonar training, the Navy included in its take estimates any harbor porpoise exposed to sound pressure levels above 120 dB (Navy 2008). The species' use of near-coastal habitats only adds to its vulnerability. To protect this sensitive species and near-coastal habitat, a robust buffer zone should be applied beyond the 100 m contour, and

exercises should be planned to eliminate or minimize ship movements towards shore when sonar systems are active.

4) Canyons and Banks of Northern Washington State and Oregon – The “Prairie”, Juan de Fuca Canyon, Swiftsure Bank, Barkley and Nitnat Canyons, and Heceta Bank are used as important feeding habitat for humpback whales and other species. These areas should be avoided at least during the main humpback whale feeding season from June to October.

5) Olympic Coast National Marine Sanctuary – As noted above, the Sanctuary provides habitat for twenty-nine species of marine mammals, including foraging habitat for Southern Resident killer whales and humpback whales, and other species. A recent NOAA report found that “an increase in Navy activity or areas of operation, if not properly controlled, could have potential to disturb the seabed, introduce pollutants associated with test systems, and produce sound energy that could negatively alter the acoustic environment within the sanctuary” (NOAA 2008). Under the Navy’s current proposal, the operations area within the Range Complex would virtually engulf the Sanctuary. Any Navy plan for the training range must include measures to eliminate or very substantially limit the number of exercises taking place in Sanctuary waters.

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## APPENDIX B IMPACTS OF SONAR

### Strandings and Mortalities Associated with Sonar

Scientists agree, and the publicly available scientific literature confirms, that the intense sound generated by active sonar can induce a range of adverse effects in whales and other species, from significant behavioral changes to stranding and death. By far the most widely-reported and dramatic of these effects are the mass strandings of beaked whales and other marine mammals that have been associated with military sonar use.

Over the last decade, the association between military active sonar and whale mortalities has become a subject of considerable scientific interest and concern. That interest is reflected in the publication of numerous papers in peer-reviewed journals, in reports by inter-governmental bodies such as the IWC's Scientific Committee, and in evidence compiled from a growing number of mortalities associated with sonar. Yet the DEIS only glosses over these stranding incidents.

In March 2000, for example, sixteen whales from at least three species—including two minke whales—stranded over 150 miles of shoreline along the northern channels of the Bahamas. The beaching occurred within 24 hours of Navy ships using mid-frequency sonar in those same channels.<sup>54</sup> Post-mortem examinations found, in all whales examined, hemorrhaging in and around the ears and other tissues related to sound conduction or production, such as the larynx and auditory fats, some of which was debilitating and potentially severe.<sup>55</sup> It is now accepted that these mortalities were caused, through an unknown mechanism, by the Navy's use of mid-frequency sonar.

The Bahamas event is merely one of numerous mortality events coincident with military activities and active sonar that have now been documented, only some of which the Navy discusses.<sup>56</sup>

(1) Canary Islands 1985-1991 – Between 1985 and 1989, at least three separate mass strandings of beaked whales occurred in the Canary Islands, as reported in *Nature*.<sup>57</sup> Thirteen beaked whales of two species were killed in the

<sup>54</sup> Commerce and Navy, Joint Interim Report at iii, 16.

<sup>55</sup> *Id.*

<sup>56</sup> The following is not a complete list, as other relevant events have been reported in Bonaire, Japan, Taiwan, and other locations. See, e.g., R.L. Brownell, Jr., T. Yamada, J.G. Mead, and A.L. van Helden, Mass Strandings of Cuvier's Beaked Whales in Japan: U.S. Naval Acoustic Link? (2004) (IWC SC/56E37); J.Y. Wang and S.-C. Yang, Unusual Cetacean Stranding Events of Taiwan in 2004 and 2005, 8 *Journal of Cetacean Research and Management* 283-292 (2006); P.J.H. van Bree and I. Kristensen, On the Intriguing Stranding of Four Cuvier's Beaked Whales, *Ziphius cavirostris*, G. Cuvier, 1823, on the Lesser Antillean Island of Bonaire, 44 *Bijdragen tot de Dierkunde* 235-238 (1974).

<sup>57</sup> M. Simmonds and L.F. Lopez-Jurado, Whales and the Military, 337 *Nature* 448 (1991).

February 1985 strandings, six whales of three species stranded in November 1988, and some twenty-four whales of three species stranded in October 1989—all while naval vessels were conducting exercises off shore.<sup>58</sup> An additional stranding of Cuvier's beaked whales, also coinciding with a naval exercise, occurred in 1991.<sup>59</sup> It was reported that mass live strandings occurred each time exercises took place in the area.<sup>60</sup>

(2) Greece 1996, 1997 – In 1996, twelve Cuvier's beaked whales stranded along 35 kilometers on the west coast of Greece. The strandings were correlated, by an analysis published in *Nature*, with the test of a low- and mid-frequency active sonar system operated by NATO.<sup>61</sup> A subsequent NATO investigation found the strandings to be closely timed with the movements of the sonar vessel, and ruled out all other physical environmental factors as a cause.<sup>62</sup> The following year saw nine additional Cuvier's beaked whales strand off Greece, again coinciding with naval activity.<sup>63</sup>

(3) Virgin Islands 1999 – In October 1999, four beaked whales stranded in the U.S. Virgin Islands as the Navy began an offshore exercise. A wildlife official from the Islands reported the presence of "loud naval sonar."<sup>64</sup> When NMFS asked the Navy for more information about its exercise, the Department's response was to end the consultation that it had begun for the exercise under the Endangered Species Act.<sup>65</sup> In January 1998, according to a NMFS biologist, a beaked whale "stranded suspiciously" at Vieques as naval exercises were set to commence offshore.<sup>66</sup>

<sup>58</sup> *Id.*

<sup>59</sup> V. Martin, A. Servidio, and S. Garcia, Mass Strandings of Beaked Whales in the Canary Islands, in P.G.H. Evans and L.A. Miller, Proceedings of the Workshop on Active Sonar and Cetaceans 33-36 (2004).

<sup>60</sup> Simmonds and Lopez-Jurado, Whales and the Military, 337 *Nature* at 448.

<sup>61</sup> A. Frantzis, Does Acoustic Testing Strand Whales? 392 *Nature* 29 (1998).

<sup>62</sup> See SACLANT Undersea Research Center, Summary Record, La Spezia, Italy, 15-17 June 1998, SACLANTCEN Bioacoustics Panel, SACLANTCEN M-133 (1998).

<sup>63</sup> *Id.*; A. Frantzis, The First Mass Stranding That Was Associated with the Use of Active Sonar (Kyparissiakos Gulf, Greece, 1996), in P.G.H. Evans and L.A. Miller, Proceedings of the Workshop on Active Sonar and Cetaceans 14-20 (2004).

<sup>64</sup> Personal communication of Dr. David Nellis, U.S. Virgin Island Department of Fish and Game, to Eric Hawk, NMFS (Oct. 1999); personal communication from Ken Hollingshead, NMFS, to John Mayer, Marine Acoustics Inc. (March 19, 2002).

<sup>65</sup> Letter from William T. Hogarth, Regional Administrator, NMFS Southeast Regional Office, to RADM J. Kevin Moran, Navy Region Southeast (undated); personal communication from Ken Hollingshead, NMFS, to John Mayer, Marine Acoustics Inc. (March 19, 2002).

<sup>66</sup> Personal communication from Eric Hawk, NMFS, to Ken Hollingshead, NMFS (Feb. 12, 2002).

(4) Bahamas 2000 – As described above.

(5) Madeira 2000 -- In May 2000, four beaked whales stranded on the beaches of Madeira while several NATO ships were conducting an exercise near shore. Scientists investigating the stranding found that the whales' injuries—including "blood in and around the eyes, kidney lesions, pleural hemorrhage"—and the pattern of their stranding suggest "that a similar pressure event [*i.e.*, similar to that at work in the Bahamas] precipitated or contributed to strandings in both sites."<sup>67</sup>

(6) Canary Islands 2002 – In September 2002, at least fourteen beaked whales from three different species stranded in the Canary Islands. Four additional beaked whales stranded over the next several days.<sup>68</sup> The strandings occurred while a Spanish-led naval exercise that included U.S. Navy vessels and at least one ship equipped with mid-frequency sonar was conducting anti-submarine warfare exercises in the vicinity.<sup>69</sup> The subsequent investigation, as reported in the journals *Nature* and *Veterinary Pathology*, revealed a variety of traumas, including emboli and lesions suggestive of decompression sickness.<sup>70</sup>

(7) Washington 2003 – In May 2003, the U.S. Navy vessel USS *Shoup* was conducting a mid-frequency sonar exercise while passing through Haro Strait, between Washington's San Juan Islands and Canada's Vancouver Island. According to one contemporaneous account, "[d]ozens of porpoises and killer whales seemed to stampede all at once . . . in response to a loud electronic noise echoing through" the Strait.<sup>71</sup> Several field biologists present at the scene reported observing a pod of endangered orcas bunching near shore and engaging in very abnormal behavior consistent with avoidance, a minke whale "porpoising" away from the sonar ship, and Dall's porpoises fleeing the vessel in large numbers.<sup>72</sup> Eleven harbor porpoises—an abnormally high number

<sup>67</sup> D.R. Ketten, Beaked Whale Necropsy Findings 22 (2002) (paper submitted to NMFS); L. Freitas, The Stranding of Three Cuvier's Beaked Whales Ziphius Cavirostris in Madeira Archipelago—May 2000, in P.G.H. Evans and L.A. Miller, Proceedings of the Workshop on Active Sonar and Cetaceans 28-32 (2004).

<sup>68</sup> Vidal Martin et al., Mass Strandings of Beaked Whales in the Canary Islands, in Proceedings of the Workshop on Active Sonar and Cetaceans 33 (P.G.H. Evans & L.A. Miller eds., 2004); Fernández et al., 'Gas and Fat Embolic Syndrome', 42 *Veterinary Pathology* at 446-57.

<sup>69</sup> Fernández et al., 'Gas and Fat Embolic Syndrome', 42 *Veterinary Pathology* at 446; K.R. Weiss, Whale Deaths Linked to Navy Sonar Tests, *L.A. Times*, Oct. 1, 2002, at A3.

<sup>70</sup> Fernández et al., 'Gas and Fat Embolic Syndrome', 42 *Veterinary Pathology* at 446-57; Jepson et al., Gas-Bubble Lesions, 425 *Nature* at 575-76.

<sup>71</sup> Christopher Dunagan, Navy Sonar Incident Alarms Experts, *Bremerton Sun*, May 8, 2003.

<sup>72</sup> NMFS, Assessment of Acoustic Exposures at 6, 9.

given the average stranding rate of six per year—were found beached in the area of the exercise.<sup>73</sup>

(8) Kauai 2004 – During the Navy’s conduct of a major training exercise off Hawaii, called RIMPAC 2004, some 150-200 whales from a species that is rarely seen near shore and had never naturally mass-stranded in Hawaii came into Hanalei Bay, on the island of Kauai. The whales crowded into the shallow bay waters and milled there for over 28 hours. Though the whales were ultimately assisted into deeper waters by members of a local stranding network, one whale calf was left behind and found dead the next day. NMFS undertook an investigation of the incident and concluded that the Navy’s nearby use of sonar in RIMPAC 2004 was the “plausible, if not likely” cause of the stranding.<sup>74</sup>

(9) Canary Islands 2004 – In July 2004, four dead beaked whales were found around the coasts of the Canary Islands, within one week of an NATO exercise. The exercise, *Majestic Eagle 2004*, was conducted approximately 100 kilometers north of the Canaries. Although the three whale bodies that were necropsied were too decomposed to allow detection of gas embolisms, systematic fat embolisms were found in these animals.<sup>75</sup> The probability that the whales died at sea is extremely high.<sup>76</sup>

(10) North Carolina 2005 – During and just after a U.S. training exercise off North Carolina, at least thirty-seven whales of three different species stranded and died along the Outer Banks, including numerous pilot whales (six of which were pregnant), one newborn minke whale, and two dwarf sperm whales. NMFS investigated the incident and found that the event was highly unusual,

<sup>73</sup> NMFS, *Preliminary Report: Multidisciplinary Investigation of Harbor Porpoises (Phocoena phocoena) Stranded in Washington State from 2 May – 2 June 2003 Coinciding with the Mid-Range Sonar Exercises of the USS Shoup 53-55 (2004)* (conclusions unchanged in final report). Unfortunately, according to the report, freezer artifacts and other problems incidental to the preservation of tissue samples made the cause of death in most specimens difficult to determine; but the role of acoustic trauma could not be ruled out. *Id.*

<sup>74</sup> B.L. Southall, R. Braun, F.M.D. Gulland, A.D. Heard, R.W. Baird, S.M. Wilkin, and T.K. Rowles, *Hawaiian Melon-Headed Whale (Peponocephala electra) Mass Stranding Event of July 3-4, 2004* (2006) (NOAA Tech. Memo. NMFS-OPR-31); *See also* R.L. Brownell, Jr., K. Ralls, S. Baumann-Pickering and M.M. Poole, *Behavior of melon-headed whales, Peponocephalia electra, near oceanic islands*, *Marine Mammal Science*, (publication pending 2009).

<sup>75</sup> A. Espinosa, M. Arbelo, P. Castro, V. Martín, T. Gallardo, and A. Fernández, *New Beaked Whale Mass Stranding in Canary Islands Associated with Naval Military Exercises (Majestic Eagle 2004)* (2005) (poster presented at the European Cetacean Society Conference, La Rochelle, France, April 2005); A. Fernández, M. Méndez, E. Sierra, A. Godinho, P. Herráez, A. Espinosa de los Monteros, F. Rodríguez, F., and M. Arbelo, M., *New Gas and Fat Embolic Pathology in Beaked Whales Stranded in the Canary Islands (2005)* (poster presented at the European Cetacean Society Conference, La Rochelle, France, April 2005).

<sup>76</sup> *Id.*

being the only mass stranding of offshore species ever to have been reported in the region, and that it shared ‘a number of features’ with other sonar-related mass stranding events (involving offshore species which stranded alive and were atypically distributed along the shore). NMFS concluded that sonar was a possible cause of the strandings and also ruled out the most common other potential causes, including viral, bacterial, and protozoal infection, direct blunt trauma, and fishery interactions.<sup>77</sup>

(11) Spain 2006 – Four Cuvier’s beaked whales stranded on the Almerian coast of southern Spain, with the same suite of bends-like pathologies seen in the whales that stranded in the Canary Islands in 2002 and 2004.<sup>78</sup> A NATO response force was performing exercises within 50 miles at the time of the strandings.

Some preliminary observations can be drawn from these incidents. For example, beaked whales, a group of deep-water species that are seldom seen and may in some cases be extremely rare, seem to be particularly vulnerable to the effects of active sonar. A 2000 review undertaken by the Smithsonian Institution, and reported and expanded by the IWC’s Scientific Committee and other bodies, supports this conclusion, finding that every mass stranding on record involving multiple species of beaked whales has occurred with naval activities in the vicinity.<sup>79</sup> Indeed, it is not even certain that some beaked whale species naturally strand in numbers.

But the full magnitude of sonar’s effects on these species—or on other marine mammals—is not known. Most of the world lacks networks to identify and investigate stranding events, particularly those that involve individual animals spread out over long stretches of coastline, and therefore the mortalities that have been identified thus far are likely to represent only a subset of a substantially larger problem. For example, most beaked whale casualties (according to NMFS) are bound to go undocumented because of the remote siting of sonar exercises and the small chance that a dead or injured animal would actually strand.<sup>80</sup> It is well understood in terrestrial ecology that dead and dying animals tend to be grossly undercounted given their rapid assimilation into the environment, and one would of course expect profound difficulty where offshore

<sup>77</sup> A.A. Hohn, D.S. Rotstein, C.A. Harms, and B.L. Southall, *Multispecies Mass Stranding of Pilot Whales (Globicephala macrorhynchus), Minke Whale (Balaenoptera acutorostrata), and Dwarf Sperm Whales (Kogia sima) in North Carolina on 15-16 January 2005* (2006) (NOAA Tech. Memo. NMFS-SEFSC-53).

<sup>78</sup> International Whaling Commission, Report of the Scientific Committee, Annex K at 28 (2006) (IWC/58/Rep1).

<sup>79</sup> Marine Mammal Program of the National Museum of Natural History, *Historical Mass Mortalities of Ziphiids 2-4* (Apr. 6, 2000); *see also* J. Cetacean Res. & Mgmt., Supp., Annex J at § 13.8 (2000) (report of the IWC Scientific Committee, Standing Working Group on Environmental Concerns).

<sup>80</sup> J.V. Carretta, K.A. Forney, M.M. Muto, J. Barlow, J. Baker, and M. Lowry, *U.S. Pacific Marine Mammal Stock Assessments: 2006* (2007).

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marine species are concerned.<sup>81</sup> Along the eastern seaboard and in the Gulf of Mexico, all beaked whale sightings during NMFS shipboard surveys have occurred at considerable distances from shore.<sup>82</sup>

Furthermore, although the physical process linking sonar to strandings is not perfectly understood, the record indicates that debilitating and very possibly lethal injuries are occurring in whales exposed to sonar at sea—only some of which may then strand. As first reported in the journal *Nature*, animals that came ashore during sonar exercises off the Canary Islands, in September 2002, had developed large emboli in their organ tissue and suffered from symptoms resembling those of severe decompression sickness, or “the bends.”<sup>83</sup> It has been proposed that the panic led them to surface too rapidly or pushed them to dive before they could eliminate the nitrogen accumulated on previous descents. This finding has since been supported by follow-on papers, by published work in other fields, and by expert reviews.<sup>84</sup> In any case, the evidence is considered “compelling” that acoustic trauma, or injuries resulting from behavioral responses, has in some way led to the deaths of these animals.<sup>85</sup>

#### **Other Harmful Effects of Sonar**

Strandings and mass mortalities, though an obvious focus of much reporting and concern, are likely only the tip of the iceberg of sonar’s harmful effects. Marine mammals are believed to depend on sound to navigate, find food, locate mates, avoid

<sup>81</sup> See, e.g., G. Wobeser, *Investigation and Management of Disease in Wild Animals* 13-15 (1994); P.A. Alison, C.R. Smith, H. Kukert, J.W. Deming, B.A. Bennett, *Deep-Water Taphonomy of Vertebrate Carcasses: A Whale Skeleton in the Bathyal Santa Catalina Basin*, 17 *Paleobiology* 78-89 (1991).

<sup>82</sup> G.T. Waring, E. Josephson, C.P. Fairfield, and K. Maze-Foley, eds., *U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments—2006* at 232-33, 238, 288, 292, 296 (2007) (NOAA Tech. Memo. NMFS NE 2011) (data from NMFS surveys, showing all beaked whales sightings at significant distances from shore).

<sup>83</sup> See P.D. Jepson, M. Arbelo, R. Deaville, I.A.P. Patterson, P. Castro, J.R. Baker, E. Degollada, H.M. Ross, P. Hernández, A.M. Pocknell, F. Rodríguez, F.E. Howie, A. Espinosa, R.J. Reid, J.R. Jaber, V. Martin, A.A. Cunningham, A. Fernández, *Gas-Bubble Lesions in Stranded Cetaceans*, 425 *Nature* 575-576 (2003); Fernandez et al., *Gas and Fat Embolic Syndrome*, 42 *Veterinary Pathology* at 415.

<sup>84</sup> E.g., Cox et al., *Understanding the Impacts*. Of course it would be a mistake to assume that an animal must suffer bends-like injury or some other sort of acoustic trauma in order to strand. Some may die simply because the noise disorients them, for instance. See, e.g., NMFS, *Assessment of Acoustic Exposures* at 9-10.

<sup>85</sup> Cox et al., *Understanding the Impacts*; see also P.G.H. Evans and L.A. Miller, *Concluding Remarks, in Proceedings of the Workshop on Active Sonar and Cetaceans* 74 (2004); K.C. Balcomb and D.E. Claridge, *A Mass Stranding of Cetaceans Caused by Naval Sonar in the Bahamas*, 8(2) *Bahamas Journal of Science* 1 (2001); D.E. Claridge, *Fine-Scale Distribution and Habitat Selection of Beaked Whales* (2006) (M.Sc. thesis); E.C.M. Parsons, S.J. Dolman, A.J. Wright, N.A. Rose, and W.C.G. Burns, *Navy Sonar and Cetaceans: Just How Much Does the Gun Need to Smoke before We Act?* 56 *Marine Pollution Bulletin* 1248 (2008).

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predators, and communicate with each other. Flooding their habitat with man-made, high-intensity noise interferes with these and other functions. In addition to strandings and non-auditory injuries, the harmful effects of high-intensity sonar include:

- temporary or permanent loss of hearing, which impairs an animal’s ability to communicate, avoid predators, detect and capture prey, and avoid ship strikes;
- avoidance behavior, which can lead to abandonment of habitat or migratory pathways;
- disruption of biologically important behaviors such as mating, feeding, nursing, or migration, or loss of efficiency in conducting those behaviors;
- aggressive (or agonistic) behavior, which can result in injury;
- masking of biologically meaningful sounds, such as the call of predators or potential mates;
- chronic stress, which can compromise viability, suppress the immune system, and lower the rate of reproduction;
- habituation, causing animals to remain near damaging levels of sound, or sensitization, exacerbating other behavioral effects; and
- declines in the availability and viability of prey species, such as fish and shrimp.

Over the past 20 years, a substantial literature has emerged documenting the range of effects of ocean noise on marine mammals.<sup>86</sup>

Marine mammals are not the only species affected by undersea noise. Impacts on fish are of increasing concern due to several recent studies demonstrating hearing loss and widespread behavioral disruption in commercial species of fish and to reports, both experimental and anecdotal, of catch rates plummeting in the vicinity of noise sources. Further, the death of species not protected by federal law reduces prey available to listed species. And noise has been shown in several cases to kill, disable, or disrupt the behavior of invertebrates, many of which possess ear-like structures or other sensory mechanisms that could leave them vulnerable. It is clear that intense sources of noise are capable of affecting a wide class of ocean life.

<sup>86</sup> For a review of research on behavioral and auditory impacts of undersea noise, see, e.g., L.S. Weilgart, *The Impacts of Anthropogenic Ocean Noise on Cetaceans and Implications for Management*, 85 *Canadian Journal of Zoology* 1091-1116 (2007); W.J. Richardson, C.R. Greene, Jr., C.I. Malme, and D.H. Thomson, *Marine Mammals and Noise* (1995); National Research Council, *Ocean Noise and Marine Mammals* (2003); Whale and Dolphin Conservation Society, *Oceans of Noise* (2004).

## APPENDIX C

### CRITIQUE OF THE NAVY'S ACOUSTICS ANALYSIS

The Navy's assessment of acoustic impacts disregards a great deal of relevant information adverse to its interests, uses approaches and methodologies that would not be acceptable to the scientific community, and ignores whole categories of impacts.

#### Thresholds of Injury, Hearing Loss and Behavioral Change

At the core of the Navy's assessment of acoustic impacts are the thresholds it has established for physiological and behavioral effects. There are gross problems with the Navy's thresholds, as discussed below.

##### 1. Permanent Threshold Shift

The Navy fails to specify the threshold for permanent threshold shift ("PTS") for cetaceans, which is the highest threshold for direct physical injury, anywhere in the main body of the DEIS. One must read to Appendix D to ascertain that the PTS for cetaceans is 215 dB re 1  $\mu\text{Pa}^2\text{s}$ . Section 3.9 of the DEIS does, however, provide the PTS for pinnipeds: 226 dB re 1  $\mu\text{Pa}^2\text{s}$  for California Sea Lions, Steller Sea Lions and Northern Fur Seals, 203 dB re 1  $\mu\text{Pa}^2\text{s}$  for Harbor Seals and 224 dB re 1  $\mu\text{Pa}^2\text{s}$  for Northern Elephant Seals. DEIS at 3.9-65 to 66. These thresholds are inconsistent with the scientific literature.

For instance, the Navy disregards data gained from actual whale mortalities. The best available scientific evidence, as reported in the peer-reviewed literature, indicates that sound levels at the most likely locations of beaked whales beached in the Bahamas strandings run far lower than the Navy's threshold for injury here: approximately 150-160 dB re 1  $\mu\text{Pa}$  for 50-150 seconds, over the course of the transit.<sup>87</sup> A further modeling effort, undertaken in part by the Office of Naval Research, suggests that the mean exposure level of beaked whales, given their likely distribution in the Bahamas' Providence Channels and averaging results from various assumptions, may have been lower than 140 dB re 1  $\mu\text{Pa}$ .<sup>88</sup> Factoring in duration, then, evidence of actual sonar-related mortalities would compel a *maximum* energy level threshold for serious injury on the order of 182 dB re 1  $\mu\text{Pa}^2\text{s}$ , at least for beaked whales. Indeed, to pay at least some deference to the literature, the Navy—under pressure from NMFS—has

<sup>87</sup> J. Hildebrand, "Impacts of Anthropogenic Sound," in T.J. Ragen, J.E. Reynolds III, W.F. Perrin, and R.R. Reeves, *Conservation beyond Crisis* (2005). See also International Whaling Commission, *2004 Report of the Scientific Committee*, Annex K at § 6.3.

<sup>88</sup> J. Hildebrand, K. Balcomb, and R. Gisiner, *Modeling the Bahamas Beaked Whale Stranding of March 2000* (2004) (presentation given at the third plenary meeting of the U.S. Marine Mammal Commission Advisory Committee on Acoustic Impacts on Marine Mammals, 29 July 2004).

previously assumed that non-lethal injury would occur in beaked whales exposed above 173 dB re 1  $\mu\text{Pa}^2\text{s}$ .<sup>89</sup>

In addition, the DEIS glosses over—in a single paragraph—published research on bubble growth in marine mammals, which separately indicates the potential for injury and death at levels far lower than what the Navy proposes. DEIS at 3.9-66. According to the best available scientific evidence, as represented by multiple papers in flagship journals such as *Nature* and *Veterinary Pathology*, gas bubble growth is the causal mechanism most consistent with the observed injuries;<sup>90</sup> in addition, it was singularly and explicitly highlighted as plausible by an expert panel convened by the Marine Mammal Commission, in which the Navy participated.<sup>91</sup> The Navy concedes that exposure to sonar has been considered a "potential indirect cause of the death of marine mammals...resulting from gas and fat embolic syndrome" (DEIS at 3.9-66), but then fails to actually evaluate the potential impacts. NEPA requires agencies to evaluate all "reasonably foreseeable" impacts, which, by definition, include "impacts which have catastrophic consequences, even if their probability of occurrence is low, provided that the analysis of the impacts is supported by credible scientific evidence, is not based on pure conjecture, and is within the rule of reason." 40 C.F.R. § 1502.22. The scientific literature supporting bubble growth rises far above this standard, and the Navy's refusal to incorporate it into its impact model is arbitrary and capricious. Thus, the Navy's refusal to consider these impacts is insupportable under NEPA. 40 C.F.R. §§ 1502.22, 1502.24.

Finally, the Navy's exclusive reliance on energy flux density levels ("ELs") as a unit of analysis is misplaced. DEIS at 3.9-65. It is appropriate for the Navy to set dual thresholds for behavioral effects, one based on ELs and one based on sound exposure levels ("SELs").

<sup>89</sup> See, e.g., Navy, Joint Task Force Exercises and Composite Training Unit Exercises Final Environmental Assessment/Overseas Environmental Assessment at 4-44, 4-46 to 4-47 (2007).

<sup>90</sup> See, e.g., A. Fernández, J.F. Edwards, F. Rodríguez, A. Espinosa de los Monteros, P. Herráez, P. Castro, J.R. Jaber, V. Martín, and M. Arbelo, "Gas and Fat Embolic Syndrome" Involving a Mass Stranding of Beaked Whales (Family Ziphiidae) Exposed to Anthropogenic Sonar Signals, 42 *Veterinary Pathology* 446 (2005); P.D. Jepson, M. Arbelo, R. Deaville, I.A.P. Patterson, P. Castro, J.R. Baker, E. Degollada, H.M. Ross, P. Herráez, A.M. Pocknell, F. Rodríguez, F.E. Howie, A. Espinosa, R.J. Reid, J.R. Jaber, V. Marin, A.A. Cunningham, and A. Fernández, *Gas-Bubble Lesions in Stranded Cetaceans*, 425 *Nature* 575-576 (2003); R.W. Baird, D.L. Webster, D.J. McSweeney, A.D. Ligon, G.S. Schorr, and J. Barlow, *Divine Behavior of Cuvier's (Ziphius cavirostris) and Blainville's (Mesoplodon densirostris) Beaked Whales in Hawaii*, 84 *Canadian Journal of Zoology* 1120-1128 (2006).

<sup>91</sup> T.M. Cox, T.J. Ragen, A.J. Read, E. Vos, R.W. Baird, K. Balcomb, J. Barlow, J. Caldwell, T. Cranford, L. Crum, A. D'Arrico, G. D'Spain, A. Fernández, J. Finneran, R. Gentry, W. Gerth, F. Gulland, J. Hildebrand, D. Houser, T. Hullar, P.D. Jepson, D. Ketten, C.D. MacLeod, P. Miller, S. Moore, D. Mountain, D. Palla, P. Ponganis, S. Rommel, T. Rowles, B. Taylor, P. Tyack, D. Wartzkow, R. Gisiner, J. Mead, and L. Benner, *Understanding the Impacts of Anthropogenic Sound on Beaked Whales*, 7 *Journal of Cetacean Research & Management* 177-87 (2006).

## 2. Temporary Threshold Shift

The DEIS sets its threshold for temporary hearing loss and behavioral effects, or “temporary threshold shift” (“TTS”), at 195 dB re 1  $\mu\text{Pa}^2\text{s}$  for cetaceans, 206 dB re 1  $\mu\text{Pa}^2\text{s}$  for California Sea Lions, Steller Sea Lions and Northern Fur Seals, 183 dB re 1  $\mu\text{Pa}^2\text{s}$  for Harbor Seals and 204 dB re 1  $\mu\text{Pa}^2\text{s}$  for Northern Elephant Seals. DEIS at 3.9-65 to 66. It bases its cetacean threshold primarily on a synthesis of studies on two species of cetaceans, bottlenose dolphins and beluga whales, conducted by the Navy’s SPAWAR laboratory in San Diego and, to a lesser extent, by researchers at the University of Hawaii. DEIS at 3.9-65.

Notably, the Navy’s extrapolation of data from bottlenose dolphins and belugas to all cetaceans is not justifiable. Given the close association between acoustic sensitivity and threshold shift, such an approach must presume that belugas and bottlenose dolphins have the best hearing sensitivity in the mid-frequencies of any cetacean. However, harbor porpoises and killer whales are more sensitive over part of the mid-frequency range than are the two species in the SPAWAR and Hawaii studies.<sup>92</sup> Furthermore, the animals in the studies may not represent the full range of variation even within their own species, particularly given their age and situation: the SPAWAR animals, for example, have been housed for years in a noisy bay.<sup>93</sup>

## 3. “Risk Function” for Behavioral Effects

There are many glaring problems with the Navy’s adoption of an acoustic risk function to estimate the probability of behavioral effects. Dr. Bain sets forth a detailed critique, which is attached to this letter. Several problems are discussed below.

In contrast to the Navy’s 2005 DEIS for the Undersea Warfare Training Range (which established a threshold of 190 dB re 1  $\mu\text{Pa}^2\text{s}$ ) and the threshold which NMFS insisted the Navy adopt during RIMPAC 2006 and subsequent exercises off California and Hawaii (173 dB re 1  $\mu\text{Pa}^2\text{s}$ ), here the Navy redefines its position by applying a dose-response risk function to measure behavioral effects that begins at 120 dB re 1  $\mu\text{Pa}$  and reaches its mean at 165 dB re 1  $\mu\text{Pa}$ . DEIS at 3.9-67. Agencies are not entitled to substantial deference under the Administrative Procedure Act when they reverse previously held positions. Some of the more significant problems with the Navy’s new position include misusing SPAWAR and Haro Strait data, as well as failing to include data from the Hanalei Bay incident.

Once again, the Navy relies on studies of temporary threshold shift in captive animals for its primary source of data. DEIS 3.9-68 to 70. Marine mammal scientists have long recognized the deficiencies of using captive subjects in behavioral experiments, and to

<sup>92</sup> Richardson et al., Marine Mammals and Noise at 209.

<sup>93</sup> M.L.H. Cook, Behavioral and Auditory Evoked Potential (AEP) Hearing Measurements in Odontocete Cetaceans (2006) (Ph.D. thesis).

blindly rely on this material, to the exclusion of copious data on animals in the wild, is not supportable by any standard of scientific inquiry. Cf. 40 C.F.R. § 1502.22. The problem is exacerbated further by the fact that the subjects in question, roughly two belugas and five bottlenose dolphins, are highly trained animals that have been working in the Navy’s research program in the SPAWAR complex for years.<sup>94</sup> Indeed, the disruptions observed by Navy scientists, which included pronounced, aggressive behavior (“attacking” the source) and avoidance of feeding areas associated with the exposure, occurred during a research protocol that the animals had been rigorously trained to complete.<sup>95</sup> The SPAWAR studies have several other major deficiencies that NMFS, among others, has repeatedly pointed out. In relying so heavily on them, the Navy has once again ignored the comments of numerous marine mammal behaviorists on the Navy’s USWTR DEIS, which sharply criticized the Navy for putting any serious stock in them.<sup>96</sup>

In addition, the Navy appears to have misused data garnered from the Haro Strait incident—one of only three data sets it considers—by including only those levels of sound received by the “J” pod of killer whales when the USS *Shoup* was at its closest approach. DEIS at 3.9-69. These numbers represent the maximum level at which the pod was harassed; in fact, the whales were reported to have broken off their foraging and to have engaged in significant avoidance behavior at far greater distances from the ship, where received levels would have been orders of magnitude lower.<sup>97</sup> Not surprisingly, then, the Navy’s results are inconsistent with other studies of the effects of various noise sources, including mid-frequency sonar, on killer whales. We must insist that the Navy provide the public with its propagation analysis for the Haro Strait event, and also describe precisely how this data set, along with results from the SPAWAR and Nowacek et al. studies, were factored into its development of the behavioral risk function.

<sup>94</sup> See, e.g., S.H. Ridgway, D.A. Carder, R.R. Smith, T. Kamolnick, C.E. Schlundt, and W.R. Elsberry, Behavioral Responses and Temporary Shift in Masked Hearing Threshold of Bottlenose Dolphins, *Tursiops truncatus*, to 1-Second Tones of 141 to 201 dB re 1  $\mu\text{Pa}$  (1997) (SPAWAR Tech. Rep. 1751, Rev. 1).

<sup>95</sup> C.E. Schlundt, J.J. Finneran, D.A. Carder, and S.H. Ridgway, Temporary Shift in Masked Hearing Thresholds of Bottlenose Dolphins, *Tursiops truncatus*, and White Whales, *Delphinapterus leucas*, after Exposure to Intense Tones, 107 *Journal of the Acoustical Society of America* 3496, 3504 (2000).

<sup>96</sup> See comments from M. Johnson, D. Mann, D. Nowacek, N. Soto, P. Tyack, P. Madsen, M. Wahlberg, and B. Möhl, received by the Navy on the Undersea Warfare Training Range DEIS. These comments are hereby incorporated into this letter. See also Letter from Rodney F. Weiher, NOAA, to Keith Jenkins, Naval Facilities Engineering Command Atlantic (Jan. 30, 2006); Memo, A.R. document 51, *NRDC v. Winter*, CV 06-4131 FMC (JCx) (undated NOAA memorandum).

<sup>97</sup> See, e.g., NMFS, Assessment of Acoustic Exposures on Marine Mammals in Conjunction with USS *Shoup* Active Sonar Transmissions in the Eastern Strait of Juan de Fuca and Haro Strait, Washington—5 May 2003 at: 4-6 (2005).

The Navy also fails to include data from the July 2004 Hanalei Bay event, in which 150-200 melon-headed whales were embayed for more than 24 hours during the Navy's Rim of the Pacific exercise. According to the Navy's analysis, predicted mean received levels (from mid-frequency sonar) inside and at the mouth of Hanalei Bay ranged from 137.9 dB to 149.2 dB.<sup>98</sup> The Navy has from the beginning denied any connection between its major international exercise and the mass stranding. However, the Navy's specious reasoning is at odds with the stranding behavior observed during the event and with NMFS' report on the matter, which ruled out every other known potential factor and concluded that sonar was the "plausible if not likely" cause.<sup>99</sup> The Navy's failure to incorporate these numbers into its methodology as another data set is unjustifiable.

Furthermore, the risk function should have taken into account the social ecology of some marine mammal species. For species that travel in tight-knit groups, an effect on certain individuals can adversely influence the behavior of the whole. (Pilot whales, for example, are prone to mass strand for precisely this reason; the plight of the 200 melon-headed whales in Hanalei Bay, and of the "J" pod of killer whales in Haro Strait, and the most recent stranding of melon-headed whales in the Philippines may be pertinent examples.) Should those individuals fall on the more sensitive end of the spectrum, the entire group or pod can suffer significant harm at levels below what the Navy would take as the mean. In developing its "K" parameter, the Navy must take account of such potential indirect effects 40 C.F.R. § 1502.16(b).

We must also note that the Navy's exclusive reliance on sound pressure levels ("SPLs") in setting a behavioral threshold is misplaced. The discussion in the DEIS speaks repeatedly of uncertainty in defining the risk function and recapitulates, in its summary of the earlier methodology, the benefits implicit in the use of a criterion that takes duration into account. It is therefore appropriate for the Navy to set dual thresholds for behavioral effects, one based on SPLs and one based on energy flux density levels ("ELs").

Finally, the Navy's threshold is applied in such a way as to preclude any assessment of long-term behavioral impacts on marine mammals. It does not account, to any degree, for the problem of repetition: the way that apparently insignificant impacts, such as subtle changes in dive times or vocalization patterns, can become significant if experienced repeatedly or over time.<sup>100</sup>

<sup>98</sup> Navy, 2006 Supplement to the 2002 Rim of the Pacific (RIMPAC) Programmatic Environmental Assessment D-1 to D-2 (May 2006).

<sup>99</sup> B.L. Southall, R. Braun, F.M.D. Gulland, A.D. Heard, R.W. Baird, S.M. Wilkin, and T.K. Rowles. Hawaiian Melon-Headed Whale (*Peponocephala electra*) Mass Stranding Event of July 3-4, 2004 (2006) (NOAA Tech. Memo. NMFS-OPR-31); See also R.L. Brownell, Jr., K. Ralls, S. Baumann-Pickering and M.M. Poole, Behavior of melon-headed whales, *Peponocephalia electra*, near oceanic islands, Marine Mammal Science, (publication pending 2009).

<sup>100</sup> The importance of this problem for marine mammal conservation is reflected in a recent NRC report, which calls for models that, inter alia, translate such subtle changes into disruptions in key activities like feeding and breeding that are significant for individual animals. National Research

In sum, the Navy has established thresholds and a risk function that are fundamentally inconsistent with the scientific literature on acoustic impacts and with marine mammal science in general. Indeed, using these thresholds to support a final EIS would violate NEPA.

#### **Modeling of Acoustic Impacts**

The Navy bases its calculation of marine mammal impacts on a series of models that determine received levels of sound within a limited distance of a sonar array and then estimate the number of animals that would therefore suffer injury or disruption. It is difficult to fully gauge the accuracy and rigor of these models with the limited information that the DEIS provides; but even from the description presented here, it is clear that they are deeply flawed. Among the non-conservative assumptions that are implicit in the model:

- (1) As discussed above, the thresholds established for injury and behavioral effects are inconsistent with the available data and are based, in part, on assumptions not acceptable within the field;
- (2) The Navy does not properly account for reasonably foreseeable reverberation effects (as in the Haro Strait stranding incident),<sup>101</sup> giving no indication that its modeling sufficiently represents areas in which the risk of reverberation is greatest;
- (3) The model fails to consider the possible synergistic effects of using multiple sources, such as ship-based sonars, in the same exercise, which can significantly alter the sound field. It also fails to consider the combined effects of multiple exercises, which, as NMFS indicates, may have played a role in the 2004 Hanalei Bay strandings;<sup>102</sup>
- (4) In assuming animals are evenly distributed, the model fails to consider the magnifying effects of social structure, whereby impacts on a single animal within a pod, herd, or other unit may affect the entire group;<sup>103</sup> and
- (5) The model, in assuming that every whale encountered during subsequent exercises is essentially a new whale, does not address cumulative impacts on the breeding, feeding, and other activities of species and stocks.

Council. Marine Mammal Populations and Ocean Noise: Determining When Noise Causes Biologically Significant Effects 35-68 (2005).

<sup>101</sup> NMFS, Assessment of Acoustic Exposures on Marine Mammals in Conjunction with USS Shoup Active Sonar Transmissions in the Eastern Strait of Juan de Fuca and Haro Strait, Washington, 5 May 2003 (2005).

<sup>102</sup> Southall et al., Hawaii Melon-Headed Whale at 31, 45.

<sup>103</sup> The effects of this deficiency are substantially increased by the Navy's use of a risk function, rather than an absolute threshold, to estimate Level B harassment.

Ms. Kimberly Kler  
March 10, 2009  
Page 59

Before issuing a final EIS, the Navy must revise its flawed modeling systems and make them available to the public.



NATURAL RESOURCES DEFENSE COUNCIL

**By U.S. Mail and Electronic Submission**

April 13, 2009

Kimberly Kler, Environmental Planner  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
Phone: (360) 396-0927

Re: Draft Environmental Impact Statement/ Overseas Environmental Impact Statement for the Northwest Training Range Complex (additional comments)

Dear Ms. Kler:

On behalf of the Natural Resources Defense Council ("NRDC") and our 1.2 million members and activists, I appreciate the opportunity to submit these additional comments regarding the Navy's Draft Environmental Impact Statement/ Overseas Environmental Impact Statement ("DEIS") for the Northwest Training Range Complex ("NWTRC"). These comments supplement the comment letter submitted by NRDC and other groups on March 10, 2009. Please include these comments in the administrative record.

Our last comment letter detailed an incident in Haro Strait in May 2003 when the U.S. Navy vessel USS *Shoup* conducted a mid-frequency sonar exercise while passing between Washington's San Juan Islands and Canada's Vancouver Island. According to one contemporaneous account, "[d]ozens of porpoises and killer whales seemed to stampede all at once . . . in response to a loud electronic noise echoing through" the Strait.<sup>1</sup> Several field biologists present at the scene reported observing a pod of endangered Southern Resident killer whales bunching near shore and engaging in very abnormal behavior consistent with avoidance, a minke whale "porpoising" away from the sonar ship, and Dall's porpoises fleeing the vessel in large numbers.<sup>2</sup> Eleven harbor porpoises—an abnormally high number given the average stranding rate of six per year—were found beached in the area of the exercise.<sup>3</sup>

<sup>1</sup> Christopher Dunagan, Navy Sonar Incident Alarms Experts, Bremerton Sun, May 8, 2003.

<sup>2</sup> NMFS, Assessment of acoustic exposures on marine mammals in conjunction with USS Shoup Active Sonar Transmissions in the Eastern Strait of Juan de Fuca and Haro Strait, Washington, 5 May 2003 at 6, 9 (2005).

<sup>3</sup> NMFS, Preliminary Report: Multidisciplinary Investigation of Harbor Porpoises (Phocoena phocoena) Stranded in Washington State from 2 May – 2 June 2003 Coinciding with the Mid-Range Sonar Exercises of the USS Shoup 53-55 (2004) (conclusions unchanged in final report). Unfortunately,

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Ms. Kimberly Kler  
April 13, 2009  
Page 2

The danger of this incident has not passed, as demonstrated by the Navy's recent use of sonar in the Strait of Juan de Fuca from approximately 7 pm April 7 to 3 am April 8, 2009. Hydrophones on San Juan Island, operated by The Whale Museum, picked up strong sonar pings and garbled voices in Haro Strait from what the Navy later confirmed to be a submarine and surface ship.<sup>4</sup> The received levels of sonar were approximately the same as those levels that caused the 2003 Haro Strait incident.<sup>5</sup> Once again, Dall's porpoises engaged in unusual behavior consistent with avoidance. According to one contemporaneous account, at around 7:30 pm, about 10 to 20 Dall's porpoises started "swimming in circles and frequently surfacing."<sup>6</sup> They disappeared for 5 to 10 minutes and then engaged in the same abnormal behavior.<sup>7</sup>

This most recent incident involving the Navy's use of sonar in the Strait of Juan de Fuca belies the Navy's claims that impacts of its sonar will be minimal and short-term in nature because the "high platform speeds" of its vessels make it unlikely that animals could keep pace with the vessels. *See, e.g.*, DEIS at 3.9-101 to 102. To the contrary, hydrophones picked up high levels of sonar in the same area for over 8 hours, thus exposing marine mammals to high-frequency sonar for a prolonged period of time.

The Navy's recent use of sonar in the Strait of Juan de Fuca highlights the Navy's reckless disregard of the harmful impacts of its high intensity sonar, as well as the Navy's inability to recognize – and learn from – its past mistakes. It also underscores the need for the Navy to finally adopt effective spatial and temporal mitigation measures on its use of sonar – including the protection of Haro Strait and the Strait of Juan de Fuca, as well as all inshore waters of Puget Sound, from active sonar use.

Sincerely,



Taryn Kiekow  
Staff Attorney

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according to the report, freezer artifacts and other problems incidental to the preservation of tissue samples made the cause of death in most specimens difficult to determine; but the role of acoustic trauma could not be ruled out. *Id.*

<sup>4</sup> Seattlepi.com, *Navy confirms it used sonar in Wash. Strait* (April 9, 2009), available at [http://www.seattlepi.com/local/6420ap\\_wa\\_navy\\_sonar.html](http://www.seattlepi.com/local/6420ap_wa_navy_sonar.html).

<sup>5</sup> The Whale Museum, *Sonar Recorded off of San Juan Island*, Press Release (April 9, 2009).

<sup>6</sup> Samuel Wasser, Ph.D., Research Professor, Department of Biology and Director, Center for Conservation Biology at the University of Washington, personal communication (April 11, 2009).

<sup>7</sup> *Id.*



NATURAL RESOURCES DEFENSE COUNCIL

**By Electronic Submission and Regular Mail**

February 4, 2009

Kimberly Kler, Environmental Planner  
Naval Facilities Engineering Command Northwest  
Attention: NWTRC EIS/OEIS  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
Phone: (360) 396-0927

Re: *Petition for Extension of Public Comment Period on the Draft  
Environmental Impact Statement/Overseas Environmental Impact  
Statement for the Northwest Training Range Complex*

Dear Ms. Kler:

On behalf of the Natural Resources Defense Council ("NRDC") and our 1.2 million members and activists, I am writing to petition the Navy for an extension of the public comment period on its Draft Environmental Impact Statement/Overseas Environmental Impact Statement for the Northwest Training Range Complex ("NWTRC DEIS").

Notice of the comment period was published in the Federal Register on December 30, 2008. *See* 73 Fed. Reg. 79856. The public has been given 44 days to submit comments by February 11, 2008 on over 1000 pages of dense information. While 44 days is hardly enough time to digest and compose comments on the Navy's extensive plans, the public's opportunity to comment has been frustrated by numerous problems with the NWTRC DEIS website and electronic comment portal. We have received numerous reports that individuals have been unable to submit comments and/or unable to access information on the Navy's NWTRC DEIS website. I understand that the website itself was inoperable for at least 6 days and that the Navy was aware of the problem. In light of these difficulties, the dense information provided by the Navy in justifying its plans, and the extensive range of activity proposed, we respectfully request an extension to submit written comments of at least 30 days.

Such an extension is necessary to fully protect the public interest by giving citizens the time to thoroughly analyze the Navy's proposal and submit comments on the critical issues raised therein. The Navy's NWTRC DEIS raises many issues that the public has

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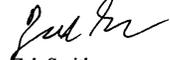
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Ms. Kimberly Kler  
February 4, 2009  
Page 2

never been able to address before. Notably, some of the Navy's activities take place in critical habitat for Southern Resident killer whales and extend into the Olympic National Marine Sanctuary, affecting migration routes for gray and humpback whales as well as many other species. The public, as well as the scientific community, needs sufficient time to identify, analyze, and comment on range activities and on the Navy's analysis thereof.

Because of the size of the NWTRC DEIS, the many issues it raises, as well as the difficulties the public has faced in obtaining information and commenting thereon, we believe that an extension is warranted here. Therefore, we strongly urge you to grant this petition and extend the comment period. As always, we would welcome discussion with the Navy at any time.

Very truly yours,



Zak Smith  
Litigation Fellow, Marine Mammal Program

Taryn G. Kiekow  
Staff Attorney, Marine Mammal Program  
Natural Resources Defense Council

Dear Sir or Madam,

I wanted to let you know that I just can't bear the thought of what destruction would happen if the navy would bomb our beautiful coast and use it as a practice range thus killing & poisoning so much precious sea life each time in what you call "acceptable kills." There are no longer acceptable kills in a long-suffering ocean where over fishing, pollution, destruction of coral reefs has already put it in a dire state of suffering. I don't think this is a good idea in this world on the edge of global warming.

I also can't bear the agony to our migrating fellow beings - the whales and cetaceans - who navigate with their own senses along our coast & would suffer horribly with their sensitive ears to the noise caused

harage, April 9, 2009  
I don't like the aspect of not having a timetable - an end point to this activity either.  
I don't accept the injury of the biggest upwelling of nutrients in the world that feeds the denizens of the sea being polluted, attacked, bombed & sonared.

Our local economy relies on the quiet beauty of this precious resource as well, and the local fishermen have already lost their salmon fishing jobs because of the massive destruction of the salmonid populations. Our local seaweed harvesters make their living from the cleanliness of our high-quality seaweed & we want to be able to provide it. So these and many other serious reasons ~~are why you need to use our coast as the~~ Northwest for any more testing. Thank you most sincerely. Diana Helen Brown 327 Hopland, CA

April 4, 2009

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1105

Atten: Mrs. Kimberly Kler NWTRC EIS

Dear Mrs. Kler:

I write in response to information that the Navy is planning Weapons Testing in the waters off the coast of Northern California.

I understand the need to be the best in the world in the ability to provide the latest and most effective weapons available in these troubled times. Surely there must be a better way to test these implements using computer models or small scale container tank tests, or whatever the latest in science may provide. However it has been shown time and again that sonar and weapons testing damages marine life and kills marine animals.

The Northern California coastline is unique in that it is only one of a few areas in the world that has a deep ocean up swell that provides rich nutrients for marine life. This may be sorely damaged by weapons testing. It is also the main migratory route for whales. It is birthing grounds for hundreds of seals and sea lions.

Please find another way to do your testing, or at worst, go out into the middle of the ocean to do your testing. The arrogance of humans must not assume that we have the right to destroy fragile environments for short term reasons of our perceived benefit.

Thank you,



Leigh Norling  
33100 Beal Lane  
Fort Bragg, CA 95437

Leigh Norling  
33100 Beal Lane  
Fort Bragg, CA 95437

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07 APR 2009 PM 2 L



Naval Facilities Engr. Command NW  
1101 Tautog Circle, Ste 203  
Silverdale, WA 98315-1105



**United States Navy**  
**Public Hearing Comment Form**  
 Northwest Training Range Complex  
 Environmental Impact Statement /  
 Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
 1101 Tautog Circle, Suite 203  
 Silverdale, WA 98315-1101  
 ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: Edward M. Oberweiser

Organization/Affiliation: Foundation of Sustainable Living

Address: 126 N. Corry

City, State, Zip Code: Fort Bragg, CA 95437

Comments: I'm extremely concerned about the disruption of the migration of the gray whales and the harm that will be done by all the sonar that the Navy will be using. There are numerous studies and reports showing harm to marine mammals and fish by low and medium frequency sound waves. I am also deeply disturbed by hazardous substances like white phosphorus, depleted uranium, fulminate of mercury, lead perchlorate and ammonia that will be released into the ocean. The ocean is where the majority of the Earth's oxygen comes from. We are using the ocean as a sewer. We are destroying its web of life

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

\*Provide your mailing address to receive future notices about the Northwest Training Range Complex EIS/OEIS.

**United States Navy**  
**Public Hearing Comment Form**  
 Northwest Training Range Complex  
 Environmental Impact Statement /  
 Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Depositing this form at the Comment Table before you leave tonight.
- 2) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 3) Mailing this form to:

Naval Facilities Engineering Command Northwest  
 1101 Tautog Circle, Suite 203  
 Silverdale, WA 98315-1101  
 ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: Ed Oberweiser

Organization/Affiliation: Foundation of Sustainable Living

Address: 126 N. Corry

City, State, Zip Code: Fort Bragg, CA 95437

Comments: The pollution and environmental damage to the ocean ecosystem that will be done by this proposed "defense" training exercise are absolutely unacceptable to us who live on the coast.

Destroying the environment to achieve full spectrum dominance by the United States government is absolutely unacceptable

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

\*Provide your mailing address to receive future notices about the Northwest Training Range Complex EIS/OEIS.

**Ocean Protection Coalition  
PO Box 1006  
Fort Bragg, CA 95437**

March 10, 2009

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, Washington 98315-1101  
ATTN: Mrs. Kimberly Kier - NWTRC EIS

Re: Comments on NWTRC EIS/OEIS

The Ocean Protection Coalition is a 501(c)3 group of citizens and other groups dedicated to protecting the Mendocino County coast and ocean and its many resources. We are compelled to such efforts because we recognize that we are blessed with one of the four most productive marine ecosystems in the world. We know the ocean is our greatest asset. The well-being of the ocean affects every aspect of our lives.

Currently we are resisting plans to install hydrokinetic power plants off our coast as well as renewed efforts to open up our outer continental shelf to oil & gas development.

Because we have only recently learned of the Navy's plans to expand their on-going military exercises and weapons tests we have yet had a chance to access the EIS/OEIS for this proposal. We therefore must rely on other reliable sources for our comments. We incorporate into the record the following comments already submitted. We concur with and reiterate the author's concerns.

We are especially concerned regarding the following:

**The apparent lack of adequate notice & hearings**

Inadequate information re what the Navy actually plans and therefore the public's inability to assess potential impacts

The use of "depleted" uranium, which we understand still emits significant amounts of radioactivity. Could the past use of "depleted" uranium be causing dead zones recently discovered off the Oregon coast? If not, on what does the Navy base its findings?

Sonic weapons tests known to be harmful to marine animals

The potential cumulative impacts of Navy activities when combined with ocean energy extraction activities (were these even mentioned?)

Potential negative impacts to listed species such as the gray whale, salmon—on which a considerable portion of our local income depends.

Potential negative impacts to phytoplankton—the base of the food chain.

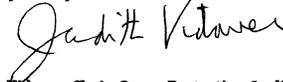
We are experiencing a global emergency unprecedented in the history of humankind. Climate change caused by global warming threatens not just the national security of the United States, but of all nations. Indeed, it is the biggest threat to all life on the planet.

The ocean has the greatest potential to ameliorate the effects of global warming. Every component of the ocean ecosystem plays its part in the delicate balance that allows life to flourish on Earth. But the ocean is already severely stressed and reaching its limits on its ability to continue doing its job. We need to immediately stop all activities that compromise the ocean's ability to function as the most important element in the planet's life support system. We need to find ways of bringing its processes back into balance.

The military, burning, as it does, one third of the fossil fuels consumed in this country, needs, as do the rest of us, to drastically curtail its use of non-renewable energy. Additionally, if the Navy and the rest of the "Defense" Department are sincerely interested in protecting the people of the US, their focus needs to shift from seeing enemies from beyond our borders. We all need to acknowledge the only threat to our security is climate change. The military has enormous resources that could perhaps make the difference between a planetary nightmare and survival.

If this Navy plan is not contributing to this effort, then the only rational decision must be for a "no project" alternative.

Thank you for your consideration of this most important matter.



Judith Vidaver, Chair, Ocean Protection Coalition & Certified Naturalist



UNITED STATES DEPARTMENT OF COMMERCE  
**National Oceanic and Atmospheric Administration**  
 NATIONAL OCEAN SERVICE  
 OFFICE OF OCEAN AND COASTAL RESOURCE MANAGEMENT  
 Olympic Coast National Marine Sanctuary  
 115 East Railroad Avenue, Suite 301  
 Port Angeles, WA 98362-2925

## SANCTUARY ADVISORY COUNCIL



**Dr. Terrie Klinger, Chair**  
**Bob Bohlman, Vice-Chair**  
**Teresa Scott, Secretary**

February 5, 2009

Naval Facilities Command Center NW  
 1101 Tautog Circle, Suite 203  
 Silverdale, WA 98315-110  
 Att: Kimberly Kler

Dear Ms. Kler:

On behalf of the Olympic Coast National Marine Sanctuary Advisory Council (council), I am forwarding to you the council's comments on the Draft Environmental Impact Statement (DEIS) for the U.S. Navy Northwest Training Complex Environmental Impact Statement/Overseas. The council considered and adopted these comments unanimously with no abstentions at the January 30<sup>th</sup> meeting held in Forks, Washington. By the council's legislative requirements and the requirements of its charter, the council directs recommendations on issues affecting the sanctuary by other federal agencies to the sanctuary superintendent.

In September of 2007, the council submitted comments on the scope of issues to be included in the DEIS. These are included as an attachment. In addition, the Olympic Coast National Marine Sanctuary will be submitting its own comments on the DEIS.

In forwarding these comments, I want to state that the views represented in the council's letter represent the council views only and do not necessarily represent the views of the Olympic Coast National Marine Sanctuary or the National Marine Sanctuary Program of the National Oceanic and Atmospheric Administration. If you have any questions, please contact me and, if necessary, I will connect you with the appropriate council member. Also, please address any responses directly to the council.

Sincerely,

Carol Bernthal  
 Superintendent, Olympic Coast National Marine Sanctuary

Attachments

*Representation*

*Citizen-At-Large*  
*Conservation*  
*Tourism/Economic Development*  
*Commercial Fishing*  
*Marine Business*  
*Education*  
*Research*  
*Hoh Tribe*  
*Makah Tribe*  
*Quileute Tribe*  
*Quinalt Indian Nation*  
*Clallam County*  
*Jefferson County*  
*Grays Harbor County*  
*Washington State:*  
*Dept. of Ecology*  
*Dept. of Fish and Wildlife*  
*Dept. of Natural Resources*  
*Olympic National Park*  
*U.S. Fish and Wildlife Service*  
*NOAA Fisheries*  
*U.S. Coast Guard*  
*U.S. Navy*  
*Northwest Straits Commission*

*Artwork: David Sones*

January 30, 2009

Carol Bernthal, Superintendent  
 Olympic Coast National Marine Sanctuary  
 115 E. Railroad Ave., Suite 301  
 Port Angeles, WA 98362

Dear Superintendent Bernthal:

The Olympic Coast National Marine Sanctuary Advisory Council (council) approved this letter at its January 29, 2009 meeting recommending that you forward to the U.S. Navy the following comments on the U.S. Navy Northwest Training Range Complex Draft EIS/OEIS (DEIS).

1. In prior scoping comments (see attachment), the council recommended that the Navy consider alternatives that would maintain the levels of activity and equipment within the sanctuary boundaries as they existed in 1994 and 2004. The DEIS does not consider this recommendation. Rather, both Alternatives 1 and 2 in the DEIS treat sanctuary waters no differently than the rest of the Northwest Training Range Complex, except for the location of the underwater minefield.
2. The council recommends that the Navy adopt the No Action alternative in the DEIS. Both Alternatives 1 and 2 anticipate an increased level of ship and aircraft activities over the W237 military warning area. This would result in increased risks of wildlife disturbance, marine debris, and hazardous materials contamination, causing environmental impacts on sanctuary resources. Because

**OLYMPIC COAST NATIONAL MARINE SANCTUARY**  
 115 East Railroad Ave., Suite 301 Port Angeles, WA 98362  
 360/457-6622 · 360/457-8496 fax  
<http://ocnms.nos.noaa.gov/>



the DEIS does not quantify the increase of military activities in the sanctuary, it is difficult to quantitatively assess the increased environmental risks. Therefore, based on a precautionary approach, the council prefers the No Action alternative.

3. The council supports the Navy's decision to prevent underwater minefield installation from taking place in the sanctuary, as proposed in the DEIS.

The council is an advisory body. The opinions and findings of this publication do not necessarily reflect the position of the Olympic Coast National Marine Sanctuary and the National Oceanic and Atmospheric Administration.

Sincerely,



Terrie Klinger, Chair

Attachment:

## SANCTUARY ADVISORY COUNCIL



**Dr. Terrie Klinger, Chair**  
**Bob Bohlman, Vice-Chair**  
**Teresa Scott, Secretary**

### *Representation*

*Citizen-At-Large*  
*Conservation*  
*Tourism/Economic Development*  
*Commercial Fishing*  
*Marine Business*  
*Education*  
*Research*  
*Hoh Tribe*  
*Makah Tribe*  
*Quileute Tribe*  
*Quinalt Indian Nation*  
*Clallam County*  
*Jefferson County*  
*Grays Harbor County*  
*Washington State:*  
*Dept. of Ecology*  
*Dept. of Fish and Wildlife*  
*Dept. of Natural Resources*  
*Olympic National Park*  
*U.S. Fish and Wildlife Service*  
*NOAA Fisheries*  
*U.S. Coast Guard*  
*U.S. Navy*  
*Northwest Straits Commission*

September 27, 2007

Carol Bernthal, Superintendent  
Olympic Coast National Marine Sanctuary  
115 East Railroad Ave.  
Port Angeles, WA 98362

Dear Ms. Bernthal

On behalf of the Olympic Coast National Marine Sanctuary Advisory Committee I am forwarding to you scoping comments on the U.S. Navy Northwest Training Complex Environmental Impact Statement/Overseas Environmental Impact Statement that were adopted by the Olympic Coast National Marine Sanctuary Advisory Council (OCNMSAC) at our September 21, 2007 meeting. Also on behalf of the OCNMSAC, I am requesting that you forward these comments to the U.S. Navy.

With regard to public scoping for the Northwest Training Range Complex EIS, the Sanctuary Council adopted the following resolution with no objections and one abstention at its regular meeting of September 21, 2007:

“The Sanctuary Council respectfully requests that the Navy perform a broader analysis of alternatives within the geographic area of the Olympic Coast National Marine Sanctuary. Specifically, we request that the Navy consider alternatives that would 1) maintain activity and equipment levels within the Sanctuary as specified in the Environmental Impact Statement pertaining to Sanctuary designation in 1994; and 2) maintain activity and equipment levels equivalent to those that existed in 2004.

*Artwork: David Sones*

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The Sanctuary Council further requests that the Navy address the 13 concerns that the Advisory Council submitted in response to public scoping for the Keyport Range expansion as articulated in a letter dated December 2, 2003 (enclosed). The same concerns apply to scoping for the Northwest Training Range Complex.”

The OCNMSAC is an advisory body only. The opinions and findings of this publication do not necessarily reflect the position of the National Marine Sanctuary Program and the National Oceanic and Atmospheric Administration.

Sincerely,



Terrie Klinger, Chair

Attachment

**OLYMPIC COAST NATIONAL MARINE SANCTUARY**  
115 East Railroad Ave., Suite 301 Port Angeles, WA 98362  
360/457-6622 · 360/457-8496 fax  
<http://ocnms.nos.noaa.gov/>



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL OCEAN SERVICE  
OFFICE OF NATIONAL MARINE SANCTUARIES  
Olympic Coast National Marine Sanctuary  
115 East Railroad Avenue, Suite 301  
Port Angeles, WA 98362-2925

February 12, 2009

Ms. Kimberly Kler  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101

Dear Ms. Kler,

The NOAA Office of National Marine Sanctuaries (ONMS) acknowledges the effort the Navy has applied to development of the Draft EIS/OIS dated December 2008 for the Northwest Training Range Complex. We also appreciate the time Navy representatives have spent briefing Olympic Coast National Marine Sanctuary (OCNMS) staff and advisory council on elements of the DEIS. We have submitted detailed comments on specific language in the DEIS via the National Marine Fisheries Service, the cooperating agency on the analysis.

Section 304(d) the National Marine Sanctuaries Act (NMSA; 16 U.S.C. §§ 1431 et. seq.) requires federal agencies whose actions are “likely to destroy, cause the loss of, or injure a sanctuary resource” to consult with the ONMS before taking the action. The office is, in these cases, required to recommend reasonable and prudent alternatives to protect sanctuary resources. Although the DEIS determined that Federal interagency consultation pursuant to section 304(d) of the NMSA was not necessary because the proposed action does not include new activities.(page 1-13), the DEIS does identify activities that may injure sanctuary resources and does identify potential new activities and equipment in the preferred alternative. New activities may be exempted only after consultation with ONMS. 15 CFR §922.152(d)(1)(ii). In addition, while some of these practices may be consistent with the exemptions in OCNMS regulations for certain Department of Defense activities, these regulations further specify that all military activities shall be carried out in a manner that avoids to the extent practicable any adverse impacts to sanctuary resources. 15 CFR §922.152(d)(1).

Therefore, ONMS requests consultation with the Navy due to the potential impacts of the proposed activities on sanctuary resources, especially for activities that are substantially different or otherwise fall outside the scope of military operations considered by analyses made when the sanctuary was designated.



ONMS is particularly concerned about the impacts on sanctuary resources from the following:

1. The extensive use of expendable equipment that would result in marine debris being deposited into OCNMS, in particular sonobuoys, parachutes, and various targets. Discharge of material or other matter, as well as abandonment of equipment on the seabed, are both prohibited by OCNMS regulations. *See generally*, 15 CFR §922.152. ONMS would like to discuss with the Navy measures to reduce the amount of debris, including exploring the use of biodegradable materials and retrieving material whenever practicable.
2. Waste discharge protocols that are less stringent than OCNMS regulations. OCNMS discharge regulations are more restrictive than the standard operating protocols described in the DEIS. See 15 CFR §922.152(a)(2)(i). ONMS requests consultation on waste discharges associated with Navy vessel operations during training activities within OCNMS to make them consistent with sanctuary regulations.

I believe that these issues can be addressed in a manner that meets the goals and objectives of both the Navy and the ONMS. I recommend that, at the earliest opportunity, the Navy initiate consultation with us to discuss ways the Navy can address these concerns, including improvements that can be made to the Navy's operating procedures and the development of measures necessary to protect sanctuary resources to the maximum extent practicable. Please contact me at your convenience to set up further discussions and continue the consultation process.

I can be reached by phone at 360-457-6622 ext. 11 or by email at [carol.bernthal@noaa.gov](mailto:carol.bernthal@noaa.gov).

Sincerely,

  
 Carol Bernthal  
 Superintendent



### Orca Network's letter to the US Navy Re: Northwest Training Range Complex Draft Environmental Impact Statement

Mrs. Kimberly Kler  
 NWTRC EIS/OEIS  
 Naval Facilities Engineering Command Northwest  
 1101 Tautog Circle, Suite 203,  
 Silverdale, WA 98315-1101

Re: Northwest Training Range Complex Draft Environmental Impact Statement

We appreciate the opportunity to read the NWTRC Draft Environmental Impact Statement and offer comment. The activities of Orca Network lie primarily in disseminating the natural history of orcas, especially those in the Pacific NW, and by extension all marine mammals. We are also active in studies to determine critical habitat needs for the survival of marine mammals, especially endangered orcas and their primary prey, Chinook salmon runs, many of which are also endangered or threatened.

A. A further extension of the comment period, to at least mid-April, is needed on grounds that the requirement to provide adequate public notice has not been met throughout the process of this EIS, beginning in 2007. [**Note: On March 10, the comment period was extended to April 13.**] In Oregon, for example, (as documented [here](#): <http://planetwaves.net/pagetwo/2009/02/02/navy-plan-turnst-pacific-coast-into-firing-range/>) the Navy apparently attempted to evade the purpose of the public notice requirement, which is to inform the public of potential environmental impacts and allow ample time for comment.

In addition, the website to submit comments was non-functional during more than half of the original comment period. The Navy's principal mechanism for public information and input about the EIS, their website: ([www.nwtrangecomplexeis.com/EIS.aspx](http://www.nwtrangecomplexeis.com/EIS.aspx)), was seriously compromised between the Dec. 29, 08 inception of the EIS Public Response Period and Jan. 21. Attempts to make comments via the website were not allowed due to "abort issue" (Navy's term) from Dec 29 until Jan. 20. The website was not accessible whatsoever between Jan 15 and Jan 21. This represents a breach of process established by the Navy.

We appreciate the two extensions of comment period granted to date, however given the high potential for environmental, marine mammal and human harm resulting from the expanded training, we respectfully request a further extension of at least one month.

B. Due to the decline in numerous bird, fish and marine mammal species that inhabit the proposed training range, and the lack of information available to assess the impacts of the Navy's proposed expansion on those species, especially with proposed testing of new systems and the impossibility of achieving adequate marine mammal monitoring, a "No Action Alternative" which maintains the current level of training, is the preferred option. The EIS states that:

No significant impacts are identified for any resource area in any geographic location within the NWTRC Study Area that cannot be mitigated, with the exception of exposure of marine mammals to underwater sound.

indicates the Navy is aware that even the most effective mitigation measures will probably fail to protect marine mammals.

C. Prior to supporting any expansion of training activities the Navy needs to fund independent research on the seasonal presence of marine fish, birds and mammals found within their training ranges.

D. The Navy's analysis fails to account for cumulative impacts for the years of anticipated activity. According to the Acoustic Institute ([http://www.acousticecology.org/docs/AEI\\_OceanNoise2008.pdf](http://www.acousticecology.org/docs/AEI_OceanNoise2008.pdf)): "Behavioral impacts clearly replaced strandings and deaths as the key issue for marine mammals encountering human noise. Several studies released during 2008 all suggest that whales of many species may stop or reduce their feeding when loud human sounds enter their habitat, and this particular impact is likely to become a central focus of future research and regulatory consideration." AEI further states: "All parties seem to be accepting that gross injury is rare to the point of being difficult to use as a lever to shift the balance of interests with the Navy's national security imperative, but NGOs, many field researchers, and agency staff are all looking more closely at the behavioral impacts that take place at much longer ranges (up to several or even tens of kilometers)."

E. The Navy needs to demonstrate a means to respond to environmental consequences of a maritime incident in all their operating areas including interactions between their ships and commercial vessels.

F. The EIS inadequately describes the quantities and ecological effects of discarded metals and chemicals, including depleted uranium and the potential for oil spills or ship collisions. The EIS states:

Materials expended during training include sonobuoys; parachutes and nylon cord; towed, stationary, and remote-controlled targets; inert ordnance; unexploded ordnance, and fragments from exploded ordnance, including missiles, bombs, and shells. Materials include a variety of plastics, metals, and batteries.

The reassurance that:

Most of these materials are inert and dense, and will settle to the bottom where they will eventually be covered with sediment or encrusted by physical or biological processes.

seems to gloss over cumulative effects of disposal at sea of unpredictable quantities of unknown substances into the water column and ocean floor.

G. In our judgment the mitigation measures detailed in this EIS are not sufficient to reliably identify the presence of cetaceans in most instances, in part because the marine mammals themselves often attempt to avoid detection by other marine mammals. Orca Network has been involved in observing and researching several species of cetaceans for decades, and we are well acquainted with the difficulty of recognizing brief sightings or faint acoustic signals. Recognition of marine mammals at sea either by sight or by sound is often highly problematic even for experienced personnel in calm conditions. The mitigation measures presented in the EIS appear to be as thorough as possible and, if carried out, seem to provide the best effort to monitor for marine mammals, at no small expense and commitment of resources. In real conditions, however, marine mammals can travel in a manner intended to be undetectable. Transient orcas, for example, are adept at evading detection by their wary prey or other orcas, or humans. Other marine mammals often attempt to avoid being noticed by transient killer whales. Additionally, many species of large cetaceans are capable of remaining below the surface for more than an hour and travelling a mile or more in silence.

The Natural Resources Defense Council reports that twenty-nine species of marine mammals occur in the Olympic Coast National Marine Sanctuary alone, which is a small segment of the proposed extension, including eight threatened or endangered species of whales, otters and pinnipeds. The sanctuary provides important regular foraging habitat for humpback and killer whales, including the endangered Southern Resident orca population. Gray whales use the sanctuary during biannual migrations between calving and feeding areas, and a small, possibly distinct, group of gray whales known as "summer residents" use areas along the Oregon and Washington coasts for feeding every summer. Additional cetacean species that have been observed in the waters of the sanctuary include: minke whales, fin whales, sei whales, sperm and pygmy sperm whales, blue whales, Hubbs's beaked whale, Cuvier's beaked whale, Baird's beaked whale, Stejneger's beaked whale, Risso's dolphin, false killer whale, common dolphin, northern right whale dolphin, Pacific white-sided dolphin, Dall's porpoise, and harbor porpoise. Sea otters, Steller and California sea lions, harbor seals and elephant seals use near-shore areas within the sanctuary, haul out on land at a number of locations along the coast, and use deeper waters for foraging.

H. The Navy must also consider the full effects of its sonar training. Lethal injuries in the form of abrasions to ears and lungs or trauma triggering surfacing in panic, causing lethal injuries, can occur, but sub-lethal injuries such as loss of hearing or orientation may effect behavioral changes that can also be long-term in nature and result in reduced survival. Injurious effects can harm individuals or populations, especially through repeated activity.

I. In addition to sonars, a wide variety of explosives will be detonated in course of trainings. The physical effects of explosions are inherently more difficult than sonars to predict, but may be lethal at some ranges equally difficult to predict and complicated by inclement weather, currents and thermoclines, species and behavior of animal in question, etc. The EIS also states:

Aircraft with deployed sonobuoys will use only the passive capability of sonobuoys when marine mammals are detected within 200 yds (183 m) of the sonobuoy.

and

For the NWTRC there are three types of explosive sources: AN/SSQ-110 Extended Echo Ranging (EER) sonobuoys, demolition charges, and munitions (MK-48 torpedo, Maverick, Harpoon, HARM, HELLFIRE and SLAM missiles, MK-82, MK-83, MK-84, GBU-10, GBU-12 and GBU-16 bombs, 5-inch rounds and 76 mm gunnery rounds). The EER source can be detonated at several depths within the water column. For this analysis a relatively shallow depth of 20 meters is used to optimize the likelihood of the source being positioned in a surface duct. Demolition charges are typically modeled as detonating near the bottom. For a SINKEX the demolition charge would be on the hull. The MK-48 detonates immediately below the hull of its target (nominally 50 feet). A source depth of 2 meters is used for bombs and missiles that do not strike their target. For the gunnery rounds, a source depth of 1 foot is used. The NEWs for these sources are as follows:

- EER Source—5 pounds
- Demolition charge—10 pounds in Explosive Ordnance Disposal (EOD), 100 pounds in a sinking exercise (SINKEX)
- MK-48—851 pounds
- Maverick—78.5 pounds
- Harpoon—448 pounds
- HARM—41.6 pounds
- HELLFIRE—16.4 pounds
- SLAM—164.25 pounds

- MK-82—238 pounds
  - GBU-10—945 pounds
  - GBU-12—238 pounds
  - GBU-16—445 pounds
  - 5-inch rounds—9.54 pounds
  - 76 mm rounds—1.6 pounds
- The exposures expected to result from these sources are computed on a per in-water explosive basis. The cumulative effect of a series of explosives can often be derived by simple addition if the detonations are spaced widely in time or space, allowing for sufficient animal movements as to ensure a different population of animals is considered for each detonation.

and

Modeling impact volumes for explosive sources span requires the same type of TL data as needed for active sonars. However, unlike active sonars, explosive ordnances and the EER source are broadband, contributing significant energy from tens of hertz to tens of kilohertz.

J. Only 200 estimated yards between the explosive and any given marine mammal seems insufficient when the propagating effects of the explosion are so difficult to measure accurately, given the unpredictable effects of explosions and the uncertainty of presence of marine mammals at any distance from the explosion. Currently proposed monitoring is not likely to be effective even in normal sea-state conditions. These exercises would take place in the midst of multiple ships, sometimes operating unpredictably (for marine mammals) at high speeds, detonating munitions and sonobuoys and deploying high-powered and explosive sonars, often making recognition impossible. Training monitors with visual and audio examples interpreted by experienced cetacean observers would improve reliability, though even that would fail to detect marine mammals in most cases. The Navy should at minimum improve the mitigation measures to include training of monitoring personnel by experienced whale biologists to improve recognition of marine mammals by visual and acoustic monitoring. However, even with the best monitoring by experienced people, the mitigation measures are inadequate due to the elusiveness of the animals.

K. Given that detecting marine mammals reliably enough to assure that no mortalities will take place, as claimed in the Navy's EIS, is essentially impossible, the long-term challenge is to dial down the need for these training exercises altogether, which is a problem of international relations and diplomacy. President Obama and Sec. of State Clinton can prevent this danger to marine life by fostering improved international communications and reducing hostilities.

Environmental organizations from the Pew Charitable Trust to the US Commission on Ocean Policy, mandated by Congress to recommend policy toward oceans, have strongly advocated adopting a new attitude about how we treat the oceans. Disregard of cumulative impacts of everything from spent materiel to engine waste by multiple vessels and aircraft, all simulating wartime decision-making, certainly has a destructive effect on functioning marine ecosystems. In war, military forces can claim the luxury of focusing on short-term results of their decisions, if they are to defeat the enemy. While recognizing that current international relationships are conducive to preparation for war, it is precisely the need to consider the downstream effects of our decisions, down unseen generations, that is called for if we are to hold any hope of passing a livable world to future generations. More creative solutions for the problems now at our doorstep and looming dark on the horizon must be put forth, than to simply prepare for and risk returning to wartime thinking.

Howard Garrett

Susan Berta  
Orca Network

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Sen. Betsy Johnson, Chair  
 Sen. Jeff Kruse, Vice-Chair  
 Sen. Joanne Verger  
 Sen. Doug Whitsett  
 Rep. Deborah Boone  
 Rep. Jean Cowan  
 Rep. Wayne Krieger  
 Rep. Arnie Roblan  
 Rep. Brad Witt

February 12, 2009

Mrs. Kimberly Kler - NWTRC EIS  
 Naval Facilities Engineering Command Northwest  
 1101 Tautog Circle, Suite 203  
 Silverdale, WA 98315-1101

Dear Mrs. Kimberly Kler,

The Coastal Caucus is comprised of the nine legislators representing the Oregon coast. We are committed to the preservation of our communities' natural and socioeconomic resources. Often these resources have a variety of uses including commercial and recreational fishing, visitor enjoyment, and also preserving our national security. It is through the open communication between stakeholder groups that resources are better managed and conflict of uses are minimized or avoided. Public comment is one avenue that is used to facilitate this type of communication; another is collaboration between user groups.

On January 30, 2009 the Navy held a scoping meeting at the Hatfield Marine Science Center, Newport, OR. It was the intention of this meeting to inform the public of the proposed Navy action to expand the Northwest Training Range in Oregon's waters and to solicit public comment. Governmental agencies, organizations, and the public were supposed to be informed so that they could participate in these conversations. However, due to the lack of communication, paucity of advertising, and tight timeline, most interested parties, including the Coastal Caucus, were not informed of the event until the day before.

Given the importance of this matter, the Coastal Caucus respectfully requests the Navy hold another public hearing to pursue further communication with commercial and recreational ocean user groups and to gather Oregon specific information so that impacts on these communities can be minimized. In addition, we request the Navy extend the public comment period 30 days past the February 11<sup>th</sup> deadline to allow for all stakeholders to be involved.

Thank you for your consideration,

Sen. Betsy Johnson

Sen. Jeff Kruse

Sen. Joanne Verger

Sen. Doug Whitsett

Rep. Deborah Boone

Rep. Jean Cowan

Rep. Wayne Krieger

Rep. Arnie Roblan

Rep. Brad Witt

CC: Theodore R. Kulongoski- Governor State of Oregon  
 Jeff Merkley- US Senator  
 Ron Wyden- US Senator  
 David Wu- US Representative  
 Greg Walden- US Representative  
 Earl Blumentauer- US Representative  
 Peter DeFazio- US Representative  
 Kurt Schrader- US Representative



Sen. Betsy Johnson, Chair  
 Sen. Jeff Kruse, Vice-Chair  
 Sen. Joanne Verger  
 Sen. Doug Whitsett  
 Rep. Deborah Boone  
 Rep. Jean Cowan  
 Rep. Wayne Krieger  
 Rep. Arnie Roblan  
 Rep. Brad Witt

February 16, 2009

Mrs. Kimberly Kler - NWTRC EIS  
 Naval Facilities Engineering Command Northwest  
 1101 Tautog Circle, Suite 203  
 Silverdale, WA 98315-1101  
 Fax: (360) 396-0857

Dear Mrs. Kimberly Kler,

We are writing to reassert our request for a 30-day public comment period extension beyond the initial deadline of February 11, 2009 on the proposed training range expansion. It is our primary concern that the Navy's Environmental Impact Statement (EIS) is a complete and thorough document that not only serves the Navy's needs, but also the needs of the environment belonging to the people of the United States.

As you know, the National Environmental Policy Act (NEPA) requires the Navy to integrate environmental values into your decision making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions. We are pleased to see that the Navy is engaging in the NEPA process by conducting an EIS; however, we are concerned that an insufficient amount of time has been provided for leading scientific experts, relevant state agencies, and concerned citizens to fully participate in making the EIS the best document it can be.

Accordingly, it is our request that the Navy: 1) extend the public comment period for another 30-days beyond the initial deadline; 2) fully review and incorporate information provided by the public into the EIS; and 3) hold at least one more public hearing so that the can public become better informed to the needs of the Navy, and the Navy can comply with the spirit of the NEPA process.

It is our hope that this letter provides the Coastal Caucus with standing to provide future comments regarding this matter. We look forward to working with the Navy on this matter,

Sen. Betsy Johnson

Sen. Jeff Kruse

Sen. Joanne Verger

Sen. Doug Whitsett

Rep. Deborah Boone

Rep. Jean Cowan

Rep. Wayne Krieger

Rep. Arnie Roblan

Rep. Brad Witt

CC: Theodore R. Kulongoski- Governor State of Oregon  
 Jeff Merkley- US Senator  
 Ron Wyden- US Senator  
 David Wu- US Representative  
 Greg Walden- US Representative  
 Earl Blumentauer- US Representative  
 Peter DeFazio- US Representative  
 Kurt Schrader- US Representative

Congress of the United States  
Washington, DC 20515

February 6, 2009

The Honorable Donald C. Winter  
Secretary of the Navy  
1000 Navy Pentagon  
Washington, DC 20350-1000

Dear Secretary Winter:

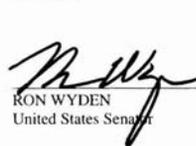
We are writing to request an extension to the February 18, 2009 public comment deadline set for the draft Environmental Impact Statement/ Overseas Environmental impact statement (EIS/OEIS) for the U.S. Navy's expanded use of the Northwest Training Range Complex off the Oregon coast.

The EIS/OEIS was released on December 29, 2008 with an electronic copy available on the Northwest Training Range Complex website. However, many citizens who live in potentially affected areas along the Oregon coast have expressed concern and frustration at the lack of public notice and the limited time to provide official comments to the U.S. Navy. The EIS/OEIS is 1,068 pages of dense technical language and yet most Oregon coast residents were not aware of the proposal's existence until a January 30, 2009 public meeting in Newport, Oregon. In addition, coastal residents have raised questions and serious concerns about the impact of the Navy's plans on coastal fisheries, tourism, ongoing efforts to develop alternative energy sources, and marine mammal research.

We believe that successful and innovative projects in Oregon require an open, fair communication process between private businesses, government, and citizens. In light of the complex issues at stake and unanswered questions regarding the potential impact of the Navy's plans, we ask that you both extend the public comment period to April 11, 2009 and hold at least two additional public meetings in Oregon, including one in Tillamook County, to ensure that those who may be affected and wish to comment on the project may do so.

We appreciate your immediate attention on this matter. If you have any additional questions, please contact Alison Craig in Congressman Schrader's Oregon office at (503) 588-9100.

Sincerely,

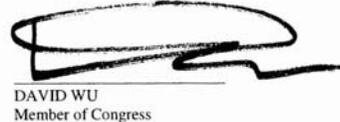
  
RON WYDEN  
United States Senator

  
JEFF MERKLEY  
United States Senator

  
KURT SCHRADER  
Member of Congress

  
EARL BLUMENAUER  
Member of Congress

  
PETER DEFAZIO  
Member of Congress

  
DAVID WU  
Member of Congress

PRINTED ON RECYCLED PAPER

United States Senate  
WASHINGTON, DC 20510

April 9, 2009

The Honorable B.J. Penn  
Secretary of the Navy  
1000 Navy Pentagon  
Washington, D.C. 20350-1000

Kimberly Kler, Environmental Planner  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101

Dear Secretary Penn and Ms. Kler:

We are writing today to provide our comments on the proposed expansion of the Northwest Training Range Complex ("NWTRC"). First and most importantly, we would like to express our strong support for the Navy's ongoing efforts to strengthen and sustain military readiness. Your efforts to provide personnel with access to realistic training environments are critical to helping maintain our national security. Additionally, we sincerely appreciate the additional time the Navy provided to allow Oregonians to comment on this important and sensitive issue. As the Navy moves forward in the NWTRC decision-making process, however, we cannot overstate the importance of proceeding in a manner that fully considers the environmental and economic needs of our constituents and coastal communities in addition to the military needs of our country.

Based on a number of comments we have received from a variety of interested stakeholders and constituents, we are concerned that many of the Navy's training proposals, including underwater minefield testing, explosive ordinance use, expanded land and air-based exercises, and widespread sonar training in particular, pose substantial environmental and economic risks. For example, you are no doubt aware that there are significant and seemingly unresolved concerns about the Navy's proposed action and the Draft Environmental Impact Statement. These include concerns that the Navy failed to adequately meet the National Environmental Policy Act requirements that compel the Navy to identify and fully explain the potential impacts - including cumulative impacts, provide an analysis of reasonable alternatives, and specify measures to mitigate potential harms. We would like to take this opportunity to highlight a few of the other outstanding key concerns in an effort to make sure they are given appropriate consideration.

1. Training activities have the potential to cause irreparable harm to the fisheries and the many industries dependent upon them along the Oregon Coast. The 2006 value of Oregon's commercial fishery was placed at \$421 million and an additional \$31.9 million was generated by the recreational fishery in 2005. The training activities have the potential to damage essential fish and hard-bottom habitats, as well as alter patterns of fisheries, potentially severely damaging economic and social outcomes for coastal and coastal-

neighboring Oregon communities. Significantly, there is a great deal of expertise to be found both within the fishing and the academic community on the Oregon Coast. We urge the Navy to work with our Coastal communities in assessing impacts and finding adequate ways to mitigate impacts, including working with communities on the scheduling and locating of activities.

2. The use of sonar has been associated with significant impacts on marine mammals. Off the Oregon Coast, the potentially detrimental effects are even more worrisome given the number of threatened and endangered species at risk. Several of the comments identified concerns with the comprehensiveness and inclusiveness of the scientific data and methodologies employed by the Navy to assess the potential consequences on marine mammals. We urge you to look closely at the comments provided on this matter and work to address these concerns.

3. Potential impacts on endangered leatherback sea turtles, sea birds, and other species have also been identified by both constituents and the Navy in the Draft Environmental Impact Statement. We urge the Navy to fully consider and minimize any impacts and to develop a plan for impact mitigation/minimization.

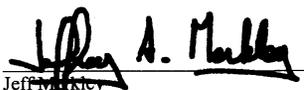
4. Training activities have the potential to release a variety of hazardous materials into sensitive marine ecosystems. We urge the Navy to determine how best to minimize these impacts, to develop a mitigation plan for doing so, and to review that plan with other relevant authorities.

In order to avoid needlessly risking such adverse consequences, we urge the Navy to reconsider the variety of scientific studies and methodologies used to support its environmental review process, to more fully explain potential environmental and cumulative impacts, to analyze all reasonable alternatives, and to identify measures that may actually mitigate harm.

We thank you in advance for your consideration of these comments. We hope to be able to work with the Navy to ensure that the substantive environmental, economic and social concerns of our constituents are considered as you move forward in designing this project. If you have any questions or comments you may contact Michele Miranda in Senator Wyden's DC office at 202-224-3163 or Jeremiah Baumann in Senator Merkley's DC office at 202-224-3753.

Sincerely,

  
Ron Wyden  
United States Senate

  
Jeff Merkley  
United States Senate



Oregon

Theodore R. Kulongoski, Governor

Department of Environmental Quality

Headquarters  
811 SW Sixth Avenue  
Portland, OR 97204-1390  
(503) 229-5696  
FAX (503) 229-6124  
TTY (503) 229-6993

February 18, 2009

Mrs. Kimberly Kler – NWTRC EIS  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101

Dear Mrs. Kler:

Oregon's Department of Environmental Quality (DEQ) is interested in the Northwest Training Range Complex Draft EIS/OEIS, which proposes training increases at Northwest Training Range Complex (NWTRC) Study Area. Proposed activities in areas W-570, W-93A and W-93B of the PACNW OPAREA are of interest to DEQ, even though this area is outside the 12 nautical mile line. The proposed alternative will increase the use of hazardous materials which can easily transport through the water column, the food web, and across political boundaries.

DEQ is concerned about any proposed increase in discharge of toxic pollutants into the environment, particularly those that are persistent or bioaccumulative. DEQ is concerned about the potential for increased body burden of toxic substances in fish, and is currently revising its water quality standards to incorporate new information about quantities of fish consumed by Oregonians. Additionally, DEQ is developing a prioritized list of persistent pollutants for surface water that will be completed by June 2009.

Pollutants such as heavy metals and polycyclic aromatic hydrocarbons (PAHs) are hazardous to human health and aquatic life at relatively small doses. Regardless of selected alternative, the Navy should continue to manage hazardous materials in compliance with applicable federal and state regulations, and Department of Defense guidelines.

Sincerely,



Neil Mullane  
Division Administrator  
DEQ Water Quality Division



# Oregon

Theodore R. Kulongoski, Governor

## Department of Fish and Wildlife

Office of the Director

3406 Cherry Avenue, NE

Salem, OR 97303

503.947.6044

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March 11, 2009

Naval Facilities Engineering Command Northwest  
Attention: Mrs. Kimberley Kler – NWTRC EIS/OEIS  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101

Dear Mrs. Kler:

The Oregon Department of Fish and Wildlife (ODFW) has reviewed the Navy's Draft EIS/OEIS for the Northwest Range Training Complex, and we have several comments and recommendations to offer. Our comments are directed to potential impacts on natural resources (i.e. marine plants, invertebrates, and fish), commercial and recreational fishing interests, non-fishing recreation interests (e.g., whale watching), and the public safety of ocean users within both State and Federal waters directly offshore of Oregon. We defer commenting on marine mammals and birds to our federal counterparts (NMFS and USFWS) that have jurisdiction over these species. The following are our comments, in no particular order:

- We request that the Final EIS denote exactly what the inshore boundary is for each proposed training exercise so that we can better determine impacts to our State interests. In the Draft EIS, it was very difficult overall to determine how far inshore particular training exercises would occur. For most Naval exercises in the PACNW OPAREA, the EIS does not explicitly state what the inshore boundary of training exercises would be (notable exceptions are the sinking exercises, air-to-air missile exercises, the Portable Undersea Tracking Range submarine exercises), therefore we must assume that they may occur as far inshore as the coastline. It is therefore our understanding that the following activities may occur inshore in all State waters: anti-submarine tracking exercises, extended echo ranging (i.e. tracking) exercises, surface ship tracking exercises, submarine tracking exercises, and electronic combat exercises.
- We request that the Navy provide specific density estimates for expended training debris (e.g., ordnance, cannon shells) on the seafloor in the Final EIS so that we can adequately assess potential impacts to natural resources. The assumption in the Draft EIS of an even distribution of expended items throughout the PACNW OPAREA is not realistic. To address this issue, the Navy should provide density estimates for seafloor debris generated by dividing the number of each type of expendable used in a training exercise by the average (and minimum) surface area over which the training exercise takes place – not the entire PACNW OPAREA. For example, if 4,000 cannon shells with depleted uranium were used in an

exercise that covered 10 square nautical miles, then the density for this expendable type would be 400 shells per square mile per exercise. The density estimates for individual training exercise could then be averaged into an overall mean. We could then gauge whether the possibility exists for significant accumulation of expended items and their associated pollution.

- We strongly recommend that the Navy reconsider its position that it will not restrict training exercises in time or space in order to avoid sensitive habitats, species, and fisheries. The marine environment offshore of Oregon has numerous areas of high-value habitats (both permanent and seasonal), Essential Fish Habitat, Habitat Areas of Particular Concern, Marine Reserves (proposed), and important fishing grounds. These areas include, but are not limited to, Stonewall Bank, Heceta Bank, Daisy Bank, Nehalem Bank, and Astoria Canyon. These areas can be identified by consulting with resource managers, marine scientists, conservationists, and commercial and sport fishing representatives. We encourage the Navy to collaborate with these entities (through a workshop?) to arrive at a reasonable and mutually acceptable arrangement.
- Because of the significant safety risk to trawlers from submarine operations, we advocate that the Navy engage in direct dialogue with the trawling community and co-develop a mutually acceptable warning system that will alert trawlers when submarines are operating in the same area.
- We are concerned about debris from training exercises interfering with fishing operations. There is both a safety concern for trawlers that could bring up unexploded ordnance or toxic materials, and a concern about physical damage to fishing gear or lost fishing time dealing with debris caught in trawl nets. A dialogue with fishing representatives could help resolve some of these issues, and it would be worthwhile to explore the utility of successful models of industry communication with our diverse fishing fleet (e.g., the Oregon Fishermen's Cable Commission; see <http://www.ofcc.com/>).
- We are very concerned about contamination of the marine environment and living resources (and possible bioaccumulation up the foodweb) by hazardous materials present in Navy-generated marine debris (e.g., missiles, cannon shells, bombs), which would increase significantly under the Navy's preferred alternative. Because contamination is such an important potential effect of Navy activities, we recommend a more thorough treatment of this topic in the Final EIS. For example, we find it inadequate that only two studies, one of which was from 1974, were cited in support of the conclusion that depleted uranium contamination was inconsequential in marine environments.

- We request that the Navy elaborate on how the existing and proposed increased debris generated from training activities will be (or has been) addressed by the Interagency Marine Debris Coordinating Committee.
- We request that the Navy develop a reporting system to communicate to stakeholders and the public about the type, general location, and quantity of marine debris generated from training activities on a periodic (e.g., annual) basis.
- We request more detailed information about the decommissioned ships under consideration for the sinking exercises (e.g., size, type, contamination type and level). Although ships will be cleaned to EPA standards, it seems likely that decommissioned ships may remain highly contaminated and disposing these ships in the marine environment may not be appropriate. We are particularly concerned about the potential that ships from the "Mothball Fleet" in San Francisco Bay will be sunk during these exercises.
- We encourage the Navy to consult with State and Federal resource management agencies (e.g., ODFW, NMFS) about siting where vessels will be sunk during the sinking exercises. This collaboration would be important in order to avoid high-value habitats and minimize impacts to natural resources.
- We request that the Navy significantly expand the EIS chapters on socioeconomic and public safety considerations (e.g., estimate potential fishing revenue losses and the number of unexploded ordnance expected to end up on the seafloor). The EIS focused on the socioeconomic impacts to Washington State, and we would like to see a similar analysis of potential socioeconomic impacts to Oregon, particularly for the fishing industry.
- We strongly oppose the continued use of ammunition containing depleted uranium in our offshore waters because of: 1) the known hazardous properties of depleted uranium, 2) the unknown biological and ecological effects of this substance in the marine environment, and 3) unrealistic estimates by the Navy of the density of spent shells on the seafloor.
- We support the use of tungsten-based cannon shells instead of depleted uranium-based shells.
- We request that the Navy address how they are attempting to balance the competing demands of the actions proposed in the West Coast Governor's Agreement on Ocean Health (e.g., clean coastal waters, healthy ocean and coastal habitats) with the pollution and potential impacts associated with Naval exercises.
- We have significant concerns about the potential impact of active mid-frequency sonar activities on cetacean populations, many of which are ESA-listed species. While these species are not regulated by the State of Oregon, they are important to the State ecologically, economically (e.g., whale watching), and aesthetically. We strongly request that the Navy consider mitigation steps that would minimize the overlap in space and time between Naval activities and cetacean concentrations (e.g., seasonal or area closures).
- We request a more in-depth analysis of the potential effects of mid-frequency sonar on fishes that occur offshore of Oregon, particularly those species known or suspected hearing specialists (e.g., herring, anchovy, sardine, bathypelagic species including Myctophids). There appears to be significant uncertainty regarding the effects of mid-frequency active sonar on fishes, especially for hearing specialists such as Clupeids and deep-sea species that inhabit the deep scattering layer. The ecological ramifications of lethal and sublethal effects on forage species and species in the deep scattering layer could be significant, and should be addressed. In the long-term, we suggest that the Navy fund more scientific studies to investigate the effects of mid-frequency sonar on fishes.
- In light of our numerous recommendations that highlight the need for communication between the Navy and stakeholders, we recommend that the Navy facilitate the creation and maintenance of a stakeholder group for the purpose of engaging in two-way dialogue about issues of concern, giving and receiving feedback, and dispensing of information. The Navy should consider assigning a liaison to facilitate such a group and maintain open channels of communication with stakeholders.
- We strongly recommend that the Navy incorporate a detailed adaptive management plan in the EIS, especially since the results of this process will remain in effect indefinitely. Inclusion of an adaptive management plan would be very useful if, for example, natural resources are affected more than anticipated by Navy exercises, or if new scientific information indicates that effects may be greater than originally anticipated.

There are several errors (or potential errors) in the EIS that should be addressed:

- Scorpionfishes, searobins, and sculpins are given as example family descriptions for both the Scorpaenidae and Triglidae in table 3.7-4 on page 3.7-19.
- There is an apparent error in the EIS on page 3.7-22 that states fishes in the order Scorpaeniformes (e.g., rockfishes) are thought to have poor hearing ability because they lack a swimbladder. However, these species *do* have

swimbladders, so it is unclear if the assumption of poor hearing is valid for this group.

- It was unclear where some of the fishery values came from, e.g. \$39 million for miscellaneous invertebrates in 2007, which is an apparent error.

Thank you for providing us the opportunity to contribute comments on this project. We appreciate the Navy's commitment to maintaining and enhancing our national security, and the open and detailed treatment of potential impacts in the Draft EIS. We respectfully request that our comments and recommendations are given due consideration.

Sincerely,



Manny A. Farinas  
Acting Deputy Director

cc: Roy Lowe, Newport Field Office, USFWS  
Cathy Tortorici, Branch Chief, NOAA  
Bob Bailey, Ocean and Coastal Services, DLCD  
Louise Solliday, Director, DSL  
Tim Wood, Director, OPRD  
Dick Pedersen, Director, DEQ  
Dave Fox, Marine Resources Program, ODFW  
Ed Bowles, Fish Division Administrator, ODFW  
file



Oregon  
Theodore R. Kulongoski, Governor

Parks and Recreation Department  
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FAX (503) 986-0794  
www.oregonstateparks.org



February 17, 2009

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
Attn: Mrs. Kimberly Kler-NWTRC EIS  
RE: OPRD Comments/Northwest Training Range Complex Draft EIS/OEIS

Dear Mrs. Kler:

I am writing in response to the solicitation for comments on the Northwest Training Range Complex Draft Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS). At the request of the Governor's Natural Resource Office, I am providing the following comments on behalf of the Oregon Parks and Recreation Department. These comments have also been submitted online.

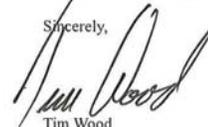
Oregon Parks and Recreation Department (OPRD) has jurisdiction over and administrative rules that govern the Ocean Shore Recreation Area as specified in Oregon's Beach Laws (ORS 390.605-390.770). OPRD manages the ocean shore to promote public health, safety and welfare, and to protect its values and those of areas adjacent to and adjoining it for natural beauty, ecosystem function and public recreational benefits.

The draft EIS/OEIS notes that the proposed activities would occur offshore of Oregon, primarily beyond the 12 mile territorial sea. However, given the wide variety of activities proposed (e.g., live fire training against surface and air targets, gunnery and bombing, missile firing, torpedo firing, vessel movements, aircraft operations, active sonar operations, Unmanned Aerial Systems etc.), OPRD has concerns regarding the potential for impacts to the Ocean Shore Recreation Area.

The EIS mentions that, "although extremely rare, some solid training materials...can migrate ashore where the public could encounter them" (3.16-11). There is the possibility, although unlikely, for failure of the built-in redundancies to prevent such occurrences, for example, in a storm event. OPRD is concerned that the draft EIS/OEIS does not mention an emergency response and/or salvage plan. If naval vessels, naval marine debris and/or hazardous materials were to come ashore, they would potentially pose a safety risk to ocean shore visitors and resources. It is important to us that an emergency response and salvage plan is developed in coordination with appropriate state and federal agencies (e.g., OPRD and its partners in the Oregon Emergency Response System) and that the plan is considered with respect to the environmental impact, as well.

Please let me know if you have any questions or if I can be of further assistance.

Sincerely,



Tim Wood  
Director

63400 0806





## Oregon Shores Conservation Coalition

February 17, 2009

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The Honorable Donald C. Winter  
Secretary of the Navy  
1000 Navy Pentagon  
Washington, D.C. 20350-1000

Dear Secretary Winter:

Oregon Shores Conservation Coalition respectfully requests an extension to the February 18, 2009 public comment deadline set for the draft Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS) for the Navy's expanded use of the Northwest Training Range Complex off the Oregon coast.

Oregon Shores has over 500 members nearly 1,300 CoastWatch "mile-adopters" who live along Oregon's coast, and across the state, and each of these citizens cares deeply about protecting the coastal region's terrestrial and marine ecosystems for future generations. Further, many of our members, and the coastal public in Oregon, have a proud and effective history of engaging in planning and management decisions that impact the future of Oregon's coastal and ocean resources through public processes provided by our local, state and federal agencies.

Since the Navy's only Oregon public hearing was held in Newport on January 30, Oregon Shores has received numerous phone calls and email messages from our members and the public who were alarmed by the lack of public knowledge about the Navy's proposed expanded use of the Northwest Training Range Complex and upset with the inadequate timeline for public review of the colossal environmental impact document.

Frankly, many Oregonians, including scientists, media professionals, agency staff, public officials, fishermen and conservationists were taken off guard. And, the Navy's "stealth" EIS comes at a time when Oregon citizens are particularly geared up for involvement in decisions about Oregon's ocean. The Navy's process is in stark contrast to deliberative public engagement processes currently underway in Oregon on key issues including establishment of a system of marine reserves, planning for wave energy development projects and amending our comprehensive plan for Oregon's territorial sea.

Oregon Shores fully concurs with the Oregon congressional delegation, as stated in their second letter to you, dated February 13<sup>th</sup>, that "meaningful public comment is clearly part of the process" of complying with environmental laws, including preparation of environmental impact statements. Because of this, Oregon Shores would strongly urge you to extend the public comment period to April 11, 2009 and provide for at least two additional public meetings in Oregon.

Sincerely,

For Allison Asbjornsen, President

## United States Navy Public Hearing Comment Form Northwest Training Range Complex Environmental Impact Statement / Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: Sam Osteen \_\_\_\_\_

Organization/Affiliation: Citizen of the United States of America and Resident of the Pacific Northwest \_\_\_\_\_

Address: 811 SE Pasek Street \_\_\_\_\_

City, State, Zip Code: Oak Harbor, WA 98277-5427 \_\_\_\_\_

Comments: My name is Sam Osteen. I've lived in Oak Harbor for eight years. I served four years active duty in the Marine Corps in the 1980's. I chose to move here because of the waters of the Puget Sound. I came out here to check it out and was stunned by the natural beauty of the sound and the surrounding area. I'm an avid hiker and SCUBA diver, and when we aren't hiking in the wilderness areas of the Cascades or the Olympic peninsula, my wife and I go diving just about every weekend.

This area is very special. I can think of no other place in the world with the same diversity of opportunities for enjoying the natural environment so conveniently. Within a short drive from our house we could be enjoying some of the best diving in the world, or hiking a well-maintained trail in a coastal rainforest, an alpine meadow, or a desert mesa. The beauty and diversity of life we've seen under our local waters is amazing, from giant pacific octopus to the tiniest nudibranch, and a lot of it is unique to this region. It's impossible to relate the splendor and majesty of the natural environment of this area with mere words.

I attended the public hearing on the Northwest Training Range Complex Environmental Impact Statement (NTRC-EIS) in Oak Harbor on January 27, 2009. I was impressed with the professional-looking presentation of the informational displays. There, I spoke to a Navy representative (I forgot her name) about the problem of plastic pollution in the ocean. She said she had heard about the huge area of floating plastic in the North Pacific Gyre, and the problems it causes to sea life. I mentioned to her I was surprised to learn recently that dumping of trash is still a common practice of ocean vessels, and she told me unconditionally, "The Navy does not dump trash into the ocean." She said that dumping of trash from Navy ships stopped years ago. Table 3.4-1 on page 3.4-19 of the EIS clearly shows that this is not entirely true. While there are restrictions, there are also many conditions where discharge of plastic garbage into the ocean is permitted. So, your people are giving out misleading information. This

-1-

*"In Oregon, The Beaches Belong to the People."*

is unacceptable.

Page 3.4-36 of the EIS mentions the production of hydrogen fluoride from the operation of explosive sonobuoys. Hydrogen fluoride converts immediately into hydrofluoric acid on contact with water. Hydrofluoric acid is highly toxic and corrosive. However, there is no mention of hydrofluoric acid in the discussion of detonation byproducts of sonobuoys. This is misleading and unacceptable.

Throughout the EIS, the word "negligible" is used to represent the threshold level of pollutants which may be safely ignored. The main operators which reduce the hazards to "negligible" levels are dissolution and dilution. While dilution may reduce the concentration of a toxin to a level which is unlikely to cause significant effects immediately, eventually the solution becomes saturated. For toxins which degrade over time, it may be possible that they don't accumulate if the level of release is low enough. But some of the hazardous materials released to the environment by Navy training are persistent: they do not significantly degrade over long periods of time and they accumulate in the tissues of marine life. The only responsible way to handle these substances is to eliminate their release into the environment. Concerning persistent bio-accumulative toxins, there is no level of discharge which may safely be ignored, and mitigation by dilution is unacceptable.

As I mentioned earlier, I moved to the Puget Sound area to be near the water. I moved to Oak Harbor specifically to work in my chosen career, tool making. There aren't many manufacturing employment opportunities in this area, and I was glad to find a great job in such a great location as Whidbey Island. I soon learned, though, that there are plenty of downsides to living near a Naval Air Station; the most unpleasant is aircraft noise. I've read the technical discussion of aircraft noise in Section 3.5 of the EIS, and seen the charts like the one on page 3.5-11, but they give no impression of what it's like to live around this constant annoyance. I live right at the edge of the current 65 dB noise contour, and work considerably closer to the noise source at Ault Field. I can tell you from personal experience that this level of noise is barely tolerable. In spite of all the wonderful things about living in this area, and despite how much I love my job, there have been many times I've considered giving it all up just to get some peace and quiet. Before I moved here I lived in the middle of downtown Minneapolis, MN, and that was practically idyllic compared to here in terms of noise. In addition to this, I've had several experiences over the last few years where, even in the most remote parts of the wilderness areas of the Cascade mountains, in areas so wild there is no sign of human influence as far as the eye can see from atop a 7000 ft. mountain - even here your military jets can intrude, thunderously disrupting what was a peaceful environment. It's impossible to relate the effect this has on the outdoor experience in words. One flyover can ruin a whole weekend trip. In fact, as I write these words right now, the loudest sound in my home is a military jet going by. This is unacceptable.

The new EA-18G aircraft may not yet be fully deployed here, but I have already had several opportunities to compare its noise levels to the older EA-6B; they fly directly over my workplace at very low altitude, sometimes alternating in rapid succession so it's very easy to compare the two aircraft. You claim that the noise levels are lower. While this may be statistically correct and verifiable with sensitive instruments, in my actual experience the difference is barely perceptible. So I know for a fact that the data you present are misleading, and the conclusions you come to are false. The paragraph at end of section 3.5.4.2 on page 3.5-15 is so far off it's just ludicrous. This, combined with the proposed increase of flight missions is just unacceptable.

I only found out about the EIS hearing in Oak Harbor because a friend e-mailed me. I saw no advertisements or announcements about it of any kind in any medium. When I got to the hearing, as I mentioned earlier, I was

- 2 -

impressed by the professional-looking presentation. You obviously spent a lot of resources creating the materials and prepping your people. However, as time went on I started noticing something. What I noticed is that, even though on first glance it appears you went to a lot of effort to provide information, in reality the opposite is true. You put a lot of effort into making the posters and brochures good-looking, but you made the essential information as inconvenient to access as possible. Several people presenting statements at the hearing mentioned that the website providing access to review the document was unavailable for a significant portion of the review period. I've seen no indication that the review period will be extended to the full time because of that. Unacceptable.

I wanted to read the document myself, so I took one of the CD-ROMs offered at the hearing home with me. First, though, I thought I'd try to use the internet version of the document. Even with a DSL connection, that experiment didn't last long; the download times were unbearable. Instead of offering the document in plain HTML format, you locked it into large, slow-downloading PDF files. There's no reason a simple document like this, mostly text with a few relatively simple graphs and charts had to be formatted as a PDF file, especially for presentation over the internet. And once I started using the CD-ROM I quickly noticed a difference between this disc and every other one I've ever used: no hyperlinked index. But even ignoring that, the document is ridiculously hard to navigate because you buried the table of contents on page 53, and you numbered the pages by section instead of sequentially. This is infuriating and inexcusable. Considering the money and time you must have spent making those posters, films, and brochures, the fact that the EIS document itself is so hard to use is unacceptable.

I now have a new example of how hard you are making it for the public to participate in this EIS process: I tried twice to submit this comment letter using your website's online form, and both times resulted in an error message stating "failed to add comment", etc. Maybe this resulted from me trying to copy and paste the text into the form, as I have done with this form, instead of laboriously hand-typing the whole letter again. I can't help but get the feeling that you don't actually want anyone to make comments, and despite what you say to the contrary, you are making it very hard for me to actually submit my comment. I will, however, keep trying.

Most of the things I've written about are existing conditions, in other words, representative of the No Action Alternative mentioned in the EIS. They are unacceptable, and yet they exist. Does that mean we have, in fact, accepted the current levels of intrusion by the Navy into our lives? I'd rather use a different term: allowance. The things you are doing are unacceptable, but we allow you to do them because we recognize that the Navy does indeed have a vital mission. That in addition to the unique opportunities it offers us for recreation, this area also has characteristics which make it uniquely suited to the training of our forces. I believe that the Navy would not be trying to train here if there was a better place to do it. And while I am strongly opposed to the use of our military forces in actual warfare, I believe there is a valid case to be made for having a well-equipped and trained military. But how much is enough?

I've been following the news about the proposed new aircraft, the EA-18G and the P-8, and I feel that it's suitable that the Navy should be upgrading its aircraft. So I'm willing to continue to make accommodations and even increase them to support the Navy's changing needs. But only what's necessary. I'll support the adoption of Alternative 1, but it's clear to me that the only reason there is an Alternative 2 proposed in the EIS is because you were uncertain the public would allow your changes to go through so you padded the deal by asking for more than what you need. I guess you think your opponents will think they scored a victory if they can claim they shot down Alternative 2, while you still get what you need. This is insulting.

- 3 -

In spite of the good words by your people at the hearing about how the Navy is so different from the way it used to be in terms of the environment, this whole experience has left me with the feeling that it's the same old pig with new lipstick.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

*Sal D O 1/31/09*



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Phone 541-737-3504 | Fax 541-737-2064 | [www.coas.oregonstate.edu](http://www.coas.oregonstate.edu)

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101

February 11, 2009

Dear Mrs. Kler:

I am writing to express my concern about the U.S. Navy's proposed Northwest Training Range Complex off Oregon. As an ex-naval officer I understand the need for diverse naval training, however, I believe that the proposed naval exercises in the Oregon Air National Guard's training area along the Oregon coast will adversely affect our marine ecosystems and quality of life for coastal communities and visitors.

I am a biological oceanographer at Oregon State University and have studied fish and wildlife populations off Oregon for over 40 years. I am concerned about the damage caused by use of mid-high frequency sonar on migrating and residence whales and porpoises and other marine mammals, about the disturbances that will be caused by low-flying and supersonic aircraft flight, artillery practice on air or sea targets, especially on nesting colonies of birds and haul-out rookeries for seals and sea lions. These operations, including mining operations, could affect fishes and other aquatic life and our marine reserves along the coast, as well as fishing operations by commercial and sports fishers. These may generally degrade the coastal environment for residents and visitors.

I could not find specifics on the Navy's proposed NWTRC operations in the EIS, but I submit that the activities cited above in the range off Oregon could have serious negative impacts on marine animals, some of which are federally listed as threatened or endangered or are listed as Oregon State sensitive species by the Oregon Department of Fish and Wildlife. Any operations should be carefully reviewed and approved by the State of Oregon and the US Fish and Wildlife Service to insure against negative impacts.

Sincerely,

William G. Percy  
Cc: Governor T. R. Kulongoski

**United States Navy  
Public Hearing Comment Form**  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kier - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: Nancy Peregrine  
Organization/Affiliation: Whale Gulch Community Watershed Ass'n  
Address: 77321 Usal Rd  
City, State, Zip Code: Whitethorn, CA 95589  
Comments: I live on the coastal border between Mendocino Co & Humboldt Co, the southern border of your war games planned terrain. One issue that wasn't brought up at the recent Mendocino Co hearing, which needs addressing - the Asian tsunami was postulated to have been triggered by underwater explosions. What do you have in place to deal with possible tsunami effect where I live? I'd like to see geologist reports on this - not naval personnel opinions.  
Sincerely,  
Nancy Peregrine

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

\*Provide your mailing address to receive future notices about the Northwest Training Range Complex EIS/OEIS.

March 11, 2009

To: Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, Washington 98315-1101  
ATTN: Mrs. Kimberly Kier - NWTRC EIS

Re: Preliminary Comments NWTRC EIS/OEIS

To: Miriam Brown-Lam  
(Via e-mail and certified Head, DON, Privacy Act/FOIA Policy Branch-Mail)  
CNO (DNS-36)  
2000 Navy Pentagon  
Washington, D.C. 20350-2000  
telephone number: (202) 685-6545  
fax number: (202) 685-6580  
e-mail address: [foia@mail.navy.mil](mailto:foia@mail.navy.mil)

Re: FOIA request NWTRC DEIS/OEIS December 2008

The United States Navy and the U.S. Department of Defense have decided that their Northwest Training Range Complex, in the State of Washington, should be expanded, and have devised a draft Environmental Impact Statement (EIS), dated December 2008, for public review and comment. The expansion of their area of operation will include the State of Washington, the State of Oregon, part of the state of Idaho, and parts of Northern California. This area will also include large areas of the Pacific Ocean from California to the State of Washington. (The Extent Map on ES-2, designating this program area, also extends throughout Northern California to the San Francisco Bay Area under a "warning area" designation.) Once implemented there is no end date noted in E.I.S.

- 1) The Navy Environmental Impact Statement does not detail in depth the land areas to be used for training purposes. Please advise on the exact land area designations for ground-based operations.
- 2) The Navy Environmental Impact states does not detail in depth the flight areas over the land areas of Idaho, northern California, Oregon, and Washington. Please advise on the exact land area designations for land overflights for all states including Nevada.
- 3) The Navy E.I.S. does not designate if Maxwell (MOA 1,2 & 3 in California), Military Operations Areas will be used in California. Please advise if these areas will be used by either the Navy or by other branches of the military in conjunctions with this Navy Warfare testing plan.
- 4) The Extent Map on ES-2 designates warning areas over Idaho, northern California, Nevada, Washington and Oregon. Please define warning area and why this entire region would be under a warning area.
- 5) The Pacific Ocean flows are along the coast of the State of Washington moving south toward Southern California. If toxic chemicals and other hazardous materials are used in the ocean they will move south contaminating other ocean areas. The Navy Environmental Impact Study does not address these issues. I would like copies of all studies conducted on this type of ocean currents and how these ocean flows could negatively impact marine life all along the Oregon and California coastline.
- 6) There is no start on ending date in this Environmental Impact Statement. Does this mean that once implemented this program will be ongoing in perpetuity? If there is an end date please advise.
- 7) Mrs. Sheila Murray (Navy Region Northwest Environmental Public Affairs Officer, cell 360-340-5398), advised me that there are ongoing Navy Warfare Testing Program ongoing in the Marinas Islands, the Hawaiian Island, Oregon, Southern California, and the State of Washington.\*\*\* Please advise if this is

correct and the dates that each of these warfare testing programs began and when they are expected to end.

- 8) Since we know and it is admitted in the Navy Environmental Impact Statement that there are toxic chemicals to be used in this Navy Warfare Testing Program what studies is the Navy conducting, on an ongoing basis, with regard to water, soil, and air monitoring to make sure that the public is protected in those areas. In addition, how many ocean toxicity testing programs has the Navy implemented to protect the ocean from contamination from these chemicals?
- 9) In Washington, Oregon and California does the Navy plan to pay for and implement the increased drinking water testing that will be required to monitor for these chemicals in drinking water sources, soils, and air quality? (See California State Department of Health, Drinking Water Division and California EPA water quality mandatory testing under Proposition 65 and other EPA laws.) Will California be reimbursed for the cost of such testing throughout California in order to protect the residents, their air, water and soils?

The U.S. Commander of the Pacific Fleet has given American citizens and residents of these states only a very short time to comment on their draft EIS: Published on December 30, 2008, with a **final public comment deadline of March 11, 2009**, this document is approximately 1,000+/- pages in length with attachments. In addition to a short comment time the Navy limited public hearings to five, with only two held in Oregon, one in California, and no scheduled hearings to be held in Idaho. The Navy has allegedly failed to place information about this EIS in major newspapers or inform our elected representatives about this program.

- 1) We are requesting an extension of the March 11, 2009, deadline as the public comment period is too short and the majority of citizens were not notified of this program. Since no hearings will held and no public newspaper notification appeared (prepared by the U.S. Navy), in large cities or in any state Capitol City, like Sacramento, California, this precluded the public from proper public notification and the ability to be attend meetings held in small communities miles away from population centers.
- 2) The Navy violated the Proposition 65 laws by not notifying the public throughout northern California of the threat of these toxic chemicals. The Navy E.I.S. does not address its notification requirements under this California law. The chemicals to be used in the Navy Warfare Testing Program as listed in the E.I.S. fall into the jurisdiction of Proposition 65 – therefore the U.S. Navy should be required to give clear and reasonable warning to the people of California prior to the use of any chemicals known to cause cancer, birth defects or other reproductive harm. Since the Navy Warfare Program will be using chemicals like Red and White Phosphorus and depleted uranium, along with other airborne chemicals, the Navy program should be stopped until such time as the public is properly notified under California State Laws and the harm each of the proposed chemical discharges would be to the public.
- 3) The Navy E.I.S. does not address the issues of airborne pollution from their chemical use blowing onto land from the Ocean. Most of the winds along the California coast are from west over the Pacific to east over land areas. Since some of the chemicals being used would reach the shore from chemical contamination of the ocean or from airborne sources the Navy E.I.S. lacked data and a clear public warning under both Proposition 65 and NEPA laws.

“Proposition 65, the Safe Drinking Water and Toxic Enforcement Act of 1986, was enacted as a ballot initiative in November 1986. The Proposition was intended by its authors to protect California citizens and the State's drinking water sources from chemicals known to cause cancer, birth defects or other reproductive harm, and to inform citizens about exposures to such chemicals.”

“Proposition 65 requires the Governor to publish, at least annually, a list of chemicals known to the state to cause cancer or reproductive toxicity.”

**25249.5. Prohibition On Contaminating Drinking Water With Chemicals Known to Cause Cancer or Reproductive Toxicity.** No person in the course of doing business shall knowingly discharge or release a chemical known to the state to cause cancer or reproductive toxicity into water or onto or into land where such chemical passes or probably will pass into any source of drinking water...”

**25249.6. Required Warning Before Exposure To Chemicals Known to Cause Cancer Or Reproductive Toxicity.** No person in the course of doing business shall knowingly and intentionally expose any individual to a chemical known to the state to cause cancer or reproductive toxicity without first giving clear and reasonable warning to such individual...”

#### **25249.7. Enforcement.**

- (a) Any person that violates or threatens to violate Section 25249.5 or 25249.6 may be enjoined in any court of competent jurisdiction.
- (b) (1) Any person who has violated Section 25249.5 or 25249.6 shall be liable for a civil penalty not to exceed two thousand five hundred dollars (\$2500) per day for each violation in addition to any other penalty established by law. That civil penalty may be assessed and recovered in a civil action brought in any court of competent jurisdiction.
- 4) We allege that NEPA laws were violated when citizens were not notified about this program as required by law in California. There were no public hearings held in Mendocino County, California, as one example in violation of NEPA and no other type of notification to the public was initiated in this county. It is alleged that the one public hearing in Humboldt violated NEPA laws in that there was insufficient public notice given to the entire population of Humboldt County.
- 5) It is alleged that the U.S. Coast Guard was not notified of this program in Mendocino County, CA per the U.S. Navy E.I.S. Distribution List. Please advise if the U.S. Coast Guard in Willits, CA was advised of this Navy Warfare Testing program prior to March 7, 2009.

Thus, citizens in California, Oregon, Idaho, and Washington are asking for a realistic extension of time to read, study, and comment on this decision by the Navy and the Department of Defense, past the March 11, 2009, deadline. It should be noted that very few elected representatives in California and Oregon were aware of this E.I.S. or the consequences of these actions by the Navy. The Navy should hold additional public hearings throughout California.

The U.S. Navy, the U.S. Department of Defense, and the Commander of the U.S. Pacific Fleet have decided, without our consent, that that are going to use the Pacific Ocean off the Coast of California, Oregon and Washington and the land over four states to test weapons of war. They did not contact Senator Harry Reid of Nevada to obtain permission to use the Nevada Test Site for these warfare experiments. Instead they decided to use public lands, the Pacific Ocean, private property, wildlife, and humans as test subjects for warfare testing in four states.

The Navy also has decided to contaminate our air, water, and soils with the chemicals used in these programs. They fail to list many of the chemicals that are to be used in these programs. Thus, under the Freedom of Information Act, (this is a formal request), I am requesting a complete listing of all chemicals that will be used during these testing programs. It is easy for the Navy EIS to state that they can mitigate for such toxic usage but fail to disclose a complete listing of said chemicals. Also copies of contamination studies conducted at other military test sites where contamination problems were found and at bases (like Fallon Navy/Air Force Base), the NWT Training Range in Washington, and other locations should be made public.

The Navy should make public all complaints and studies showing that the polluted areas in the State of Washington where the Navy has operated programs for over sixty years. Many residents have complained of these contamination problems from Navy programs in the past.

The draft EIS does not fully address the potential environmental impacts on multiple resources, like air quality, water resources, airborne acoustic environment (on land and in the ocean), biological resources, marine and terrestrial impacts and human health and safety. Without a complete understanding of their programs it is impossible to determine any impacts...thus, their EIS states that "...there are no significant impacts..." This statement is made throughout the entire document even though many of the chemicals used are highly toxic.

- 1) It should be noted that the Navy E.I.S. has no designated authors. I am requesting the names of the authors and which department prepared this inadequate E.I.S.
- 2) The Navy E.I.S. was written by those who have an interest in promoting the Navy Warfare testing program. Thus, this E.I.S. (not written by independent and unbiased sources), does not appear to address many issues that should be addressed in such a document. It is like the fox guarding the chicken coop.
- 3) The Navy E.I.S. does not address the synergistic impacts of the use of multiple chemicals in their testing programs on terrestrial organisms, soils, water, and air pollution (not to mention public health).
- 4) With the failure of the Navy E.I.S. to identify all of the air quality, water quality, and soils impacts of their programs and in listing only a few of the EPA list of toxic chemicals that will be released by military aircraft (like jet fuel emissions), the Navy has avoided any discussion of negative impacts on air and water quality. It is not sufficient to state that our air is already polluted and that additional pollutants will make no difference in air quality.
- 5) The Navy E.I.S. does not address issues like toxic jet fuel emissions on air pollution, beneficial atmospheric ozone depletion (nitric oxide), on agriculture and human health. \*Note: The full EPA report is available online at:

<http://www.epa.gov/oms/regs/nonroad/aviation/r99013.pdf> or on the EPA Website.

With increased jet flights over water and land this type of air pollution will increase. Please advise on any studies or reports prepared regarding the increase in this type of air, water, and soil pollution from jet fuel emissions conducted by any branch of the military service. Also note the military jet fuel and its additives are highly toxic and should be listed and addressed in the E.I.S. (Commercial and military jet fuels are not the same and the military (U.S. Air Force), has been experimenting with new types of jet fuel with unknown toxicity levels.) Please provide this information if any of this experimental fuel is to be used in the Navy Warfare Testing Program – along with their toxicity levels as related to human health, soil, water and air pollutants. Will they deplete beneficial atmospheric ozone?

There is a short listing of hazardous materials, air pollutants, and pollutants from munitions, expended materials, and radioactive materials to be used in this project. I am requesting a complete listing of all chemicals that will be used by the Navy, Air Force, and any other branch of the Department of Defense in this project. Inshore and offshore detonations may or may not be considered hazardous – however, until a complete listing of these chemicals is provided to the public there can be no public discussion of their hazard to public health, marine life, wildlife, public drinking water sources or our oceans. The avoidance of making this specific list public leads one to believe that these hazardous materials and chemicals are toxic and do pose environmental hazards. (California laws regarding toxic chemicals are more stringent than those in other states.)

It is interesting that Table ES-5 Summary of Effects (Page ES-16) – Hazardous Material does not list the name of any hazardous materials but tells the public that there is no problem with their use. Also they fail to note toxicity levels. How is it possible to have a summary table and list none of the chemicals to be used during the Navy program? They do note petroleum products, heavy metals, and combustion products but fail to list all of them along with the number of pounds or gallons to be used each year.

4

The public and marine life in the ocean will be subjected to various sonar and aviation noise, target noise, surface ship noise, weapons and target noise, EOD (no definition found), and underwater explosions. The Navy does admit that marine life will be harmed. However, harming our food supply, (fish like salmon), or the whales is not deemed important by the Navy, as they are expendable according to their E.I.S.

- 1) The Navy and the Department of Defense have decided that massive warfare expenditures for testing war products and weapons using marine life and the public as guinea pigs is in our best interest. And since a lot of the equipment and other items to be tested are experimental this leads one to believe that they are testing them on us for the first time to see how they work and if the public is harmed by their usage.
- 2) Just when did the citizens of the United States agree to be warfare test subjects when the Nevada Test Site and/or Area 51 which could be used for these tests? And why use the Pacific Ocean which is a migratory haven for our food supply and valuable marine life – including those that migrate along the Pacific Coast?
- 3) And if this Navy project is approved and the health of the citizens, marine, or wildlife is threatened, who will be held responsible for this action and its negative consequences? The E.I.S. does not give the public standing to say no to this project or the consequences of being used as guinea pigs during the testing. In addition, the EIS does not state how long the testing process will last – providing us with the information that once implemented testing could be conducted forever in these areas.

I am also requesting, under the freedom of information act, answers to the above questions, listings of the chemicals used and their exact harm to the public, animals, marine life, water supplies, trees, agriculture, and soils. This includes information on whether or not depleted uranium, red and white phosphorus, weather modification and mitigation chemicals will be used, whether or not atmospheric testing will occur along with aviation over-flights and bombing runs. Will sonic booms rattle our homes and low flights of planes shake our houses and wake us up at night or crack our walls and foundations? I am also requesting complete documentation and information on Electronic Combat Training and how it will impact human health. Noise and electronic levels should also be made public.

My freedom of information act request also includes the following questions:

- 1) Will aluminum coated fiberglass be used (CHAFF) and how many pounds will be released each year by all branches of the military services and in particular those participating in the Navy Warfare program under this E.I.S?
- 2) What are the health effects of Chaff particulates on humans, wildlife, soil and water? Please provide your studies on these human, water, soil, marine life, and wildlife health effects. (Particulates are a pollutant under EPA laws and a human health hazard.)
- 3) Will weather modification or mitigation programs be initiated during the Navy program? If so, what chemicals will be used in these programs? What types of weather modification experiments will be conducted by any branch of the military service (include NOAA and NASA), in conjunction with this Navy program?
- 4) Will jets be allowed to fly at heights that leave persistent jet contrails that exacerbate global warming and change our climate (NASA Studies)? What impact will persistent jet contrails have on California climate? Will any branch of the military be flying at heights that leave persistent jet contrails be associated with the Navy Warfare Testing Program? If yes, please provide a listing.
- 5) A complete listing of jet fuels to be used (+ additives), and the components of said jet fuel with information on the number of chemicals released and their impact on human health, agriculture, soils, water supplies, and wildlife. (Include JP-8, JP-10, and other new experimental jet fuels. The Jet Emissions report is available online at the EPA Website: <http://www.epa.gov/oms/regs/nonroad/aviation/r99013.pdf>)
- 6) A complete study of depleted uranium showing human health and animal health effects.

5

- 7) A complete study of the health effects of the compounds listed in Table 3.3-5 Page 3.3-11 and definitions of RDX and HMX (use and toxicity).
- 8) Toxicity of Red and White Phosphorus – humans, wildlife, soils, water supplies, marine life.
- 9) A complete listing of the propellants, explosives, pyrotechnics, chemical and riot agents, and smoke canisters (type of smoke and toxicity) is requested. And a complete listing of ground-based and atmospheric obscurants which will be used in these programs and their toxicity.
- 10) How much money will Washington, Oregon, California and Idaho be reimbursed for hazardous waste disposal and other toxic site clean-up from the Navy and the Department of Defense? It is requested that the reimbursement be 100% if this program is initiated.
- 11) A complete listing and studies of the synergistic effects of all chemicals used in the Navy program with associated health effects. This includes cumulative, bioaccumulation, and synergistic effects as well,
- 12) Studies of the synergistic effects of project chemicals on bioaccumulation in fish and other marine food supplies. Did the Navy violate NEPA with no notification or public hearings in Mendocino County, CA?
- 13) Will northern California Maxwell MOAs (Military Operation Areas 1, 2 & 3), be used in this Navy Project? If yes, what will be the actions taken over these area by all branches of the military?
- 14) What effects will bomb blasts in the Pacific Ocean be on the San Andres and other California earthquake faults? I am requesting information on the number and intensity of earthquakes in Oregon since the Navy Warfare testing program was first implemented there. It should be noted that the E.I.S. does not address the multitude of sensitive earthquake faults in California and if their bombing, explosive detonations, and sonic booms could trigger more earthquakes in Oregon and California.
- 15) Since the Navy lists sonic booms as part of their program is the Navy or the Department of Defense going to reimburse residents of Idaho, Oregon, Washington, and California for the damages produced by these booms? In past years house walls and foundations have been cracked (along with mirrors and windows), due to sonic booms. California citizens should be reimbursed for any damages caused by these booms. Please note that Orange County in California and other surrounding areas were rocked by sonic booms on March 3, 2009, according to ABC news-southern California.

A rough study of the EIS leads one to believe that the Navy and the Department of Defense intends to leave behind a toxic pea soup of chemicals and other toxins in their wake, along with the human health effects and dead marine life. Many areas of California, Oregon, Washington, and Idaho would be contaminated from these experiments through airborne and water migration across these regions.

It also appears that nothing would be spared in testing weapons of war on the public (with the Nevada Test Site and Area 51 available for much of this testing and the Atlantic Ocean also available near Washington, D.C.). It appears that these Western States will be sacrificed for building and testing more weapons of mass destruction. Remember that sacrificing California, Washington, Oregon and Idaho is just the beginning...your state will be next.

My FOIA requests copies of all materials relied upon by the Navy and crucial to any evaluation of the E.I.S. I would also like all copies of the reports referenced in the E.I.S. used as a basis for all conclusions.

I request that the comment period be extended at least 60 days beyond the date of such records finally being provided. These comments are therefore preliminary and I reserve the right to submit further comments after the Navy has complied with the Freedom of Information Act.

If the Navy fails to provide these documents it will only show your own lack of confidence in your EIS. The Navy E.I.S. document currently reflects the Navy's competence in other areas of its job, such as the lack of

navigation, chart or map reading, basic marine research, and anticipating the outcome of naval actions on marine life and human health.

I am also requesting the following information in this E.I.S. public comment document and FOIA request:

1. Documents identifying the authors, contributors, and contractors who prepared this EIS. It is impossible for the public, our elected representatives, or even the Navy itself to trust the conclusions, factual validity, or integrity of the EIS (particularly given its near-total lack of scientific references as discussed below) without knowing the identity, credentials, academic qualifications and experience of the authors.
2. All communications with governmental and outside agencies, in order to determine what, if any, objective critiques, scientific data, and advice were sought and received by the Navy Environmental Assessment(s) prepared by the Navy in accordance with Navy regulations 775.4 (d)(3) to prepare an environmental assessment in order to determine whether "preparation of an environmental impact statement is required." Obviously, such an environmental assessment would identify what activities the Navy was conducting and where and when, as well as what impacts were likely to be significant from which activities, none of which information is included in the EIS;
3. Records that would reveal where, how, and why the Navy's multiple, repeated failures of NEPA notification requirements occurred;
4. Records of the budget for this EIS, essential for both the public and our elected representatives to determine how much taxpayer money was wasted on a grossly incompetent EIS.
5. FOIA request for the only two documents cited by the EIS in support of its conclusion of no significant impact on marine life or human health from the Navy's use and disposal of thousands of pounds per year of depleted uranium ordnance in offshore waters:

A. Hanson, W.C. 1974. Ecological Considerations of Depleted Uranium Munitions. Report LA-5559. Los Alamos Scientific Laboratory of the University of California. Los Alamos, NM. (citation Vol 2, p. 8-4 of EIS)

B. Toque, C. 2006. Marine Environmental Depleted Uranium Survey Report – Kirkcudbright Training Area – 2—4. Environmental Sciences Department, Institute of Naval Medicine. Gosport, UK. (citation Vol. 2, p. 8-5 of EIS).

6. As noted in my FOIA request, neither of these two studies was ever published in a peer-reviewed journal; whether they were ever published at all, in the sense of being made readily available to the public, is highly questionable. The 1974 Hanson study appears to be an unpublished report for the Atomic Energy Commission and diligent searches of multiple academic, scientific, and government data bases have failed to find it. Dedicated librarians at the Hatfield Marine Science Laboratory's Guin Library managed to find a copy of the Toque 2006 study, which was done for the British Royal Navy; it is a lengthy report, consisting primarily of boiler-plate language from previous reports, but most importantly it absolutely nowhere supports the Navy EIS claim of no uptake of uranium by marine organisms. In fact, what data the report contains utterly contradicts Navy claims<sup>1</sup>.

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1 The Toque study found heavy depleted uranium contamination in soil around land-based gun emplacements, in soil under the trajectory of the ordnance, and to a lesser degree in the sea water, sediments, and organisms of the bay where the ordnance fell – not at all the same situation as ordnance fired from shipboard guns and missiles and aircraft that spew firing residues directly into the water; furthermore, the study's methodology would not pass muster for even a high school science project. For example, the entire sampling of marine organisms consisted of a bucket of mussels and three lobsters; all uranium found in the shelled, cooked mussels was attributed by legerdemain to bits of shell that *might* have remained in the meat; and the high level of uranium in one of three lobsters was discounted entirely because the *mean level* of all three lobsters was below an arbitrary level of concern (except, of course, concern to the person who might eat that third lobster, but neither the Royal Navy nor our own apparently have any level of concern whatsoever for people who eat contaminated seafood).

Thus, the Navy relies solely on two unpublished, non-peer-reviewed reports, one of which is unavailable and the other totally irrelevant and contradictory to EIS claims regarding an extremely toxic, extremely persistent compound being released in unrevealed quantities into our waters. The Navy's claim of no significant impact from un-measured depleted uranium releases is therefore without any foundation. For this reason alone the EIS should be withdrawn and started over, with scientifically sound, relevant, peer reviewed, publicly available research supporting any Navy conclusion.

**The Navy's reliance on nonexistent research invalidates EIS in its entirety**

For other metallic poisons discharged into Oregon waters, the EIS authors, narration supported occasionally by what can only be called unusual scientific notation. For example, see text and tables revealing Navy deposits of undisclosed quantities of chromium and chromium compounds into coastal waters at pp. 3.3-7; 3.3-9; 3.3-16; 3.3-17; 3.3-19; 3.4-15; and 3.4-24 of Volume 1.

The EIS authors acknowledge that chromium compounds along with other metallic poisons will be deposited in the sea as components of "vessels, manned and unmanned aircraft, bombs, shells, missiles, sonobuoys, batteries, electronic components, and as anti-corrosion compounds coating exterior metal surfaces." The authors conclude, with no references whatsoever, that these compounds "will settle to the bottom where they will lodge in deep sediments, eventually be covered by sediment, encrusted by chemical processes (e.g., rust), or covered by marine organisms (e.g., coral)." (EIS p. 3.3-7)

The authors further state that "seawater will eventually oxidize the expended training material into benign byproducts;" producing a faux reference not to a scientific paper or even to an unpublished report, but to another U.S. Navy environmental impact statement! (Vol. 2, p. 8-4: "DoN. 2008c. Draft Southern California Range Complex Environmental Impact Statement/Overseas Environmental Impact Statement.)

In contrast to the authors' remarkable portrait of benign byproducts, a brief internet search for data on chromium and the chromium compounds listed in the EIS (barium chromate and lead chromate) brings up hundreds of references, to both scientific and regulatory documents, in which the commonest phrases are:

"profoundly toxic,"

"a known carcinogen, developmental toxicant, and reproductive toxicant;"

"very persistent in water;"

"high potential for bioconcentration of chromium in aquatic organisms;"

"highly toxic to aquatic organisms and can pose serious risk to humans;"

"highly toxic, corrosive, and carcinogenic;"

"may cause cancer and/or heritable genetic damage;"

"can make fish more susceptible to infection;"

"very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment."

Not a single one of the hundreds of references on chromium or chromium compounds includes the word "benign." The U.S. Navy, an extensive search shows, is the only entity to apply the word "benign" to chromium or chromium compounds – and the U.S. Navy can cite *only* the U.S. Navy for its application of the word to so toxic a material. The EIS should be withdrawn and the process started over before this Naval Warfare testing program is allowed to start or expand in any state or the Pacific Ocean areas.

It should be noted that unusual spiking is occurring in California drinking water supplies according to the California State Department of Health, Drinking Water Division (Sacramento, CA), water test data from across California. Could this increase in spikes be due to the increase in use of toxic chemicals in the Pacific Ocean areas and over land from the new, ongoing Navy Warfare testing programs?

- 1) A review of all water tests conducted in the State of California between 1984 and 2008, for every water test result over -0-, has been completed in the last year to find any unusual water contaminant readings which are over State of California standards and that could have negative consequences for human health.
- 2) The review demonstrated unusual new spiking patterns, across California, for some toxic drinking water contaminants that raise concerns about air borne and other pollution sources. (Will the Navy be using any of the chemicals listed below in their Navy Warfare Testing Program?) This list includes, but is not limited to, the following contaminants:

Aluminum	Barium	Iron	Manganese	Magnesium
Sodium	Boron	Arsenic	Strontium	Uranium
Strontium-90	Antimony	Beryllium	Bromine	Cadmium
Calcium	Copper	Lead	Nickel	Silver
Thallium	Titanium	Vanadium	Zinc	Sulfide
Sulfate				

**Perchlorate, depleted uranium, Sulfur Hexafluoride (SF6), Phosphorus, Lithium, Rubidium, Silicon, Silica, Tin, Titanium, Tritium, Tungsten, White Phosphorus, Red Phosphorus, and Yttrium are not currently being tested for in California Drinking Water Supplies and should be added to the list of chemicals tested by the State of California due to health effects associated with exposure. Many of these same contaminants are showing up in California State Air Resources air testing results throughout many parts of California. Neonicotinoids should also be added to the list of water contaminants as they may be responsible for Honey Bee and other pollinator declines. (Note that carbon black and silver iodide should be also added to this list.)**

The U.S. Navy should be required to pay California as reimbursement for including all of the Navy toxic listing of chemicals in required water and air testing. In addition, increased water, soil, and air testing should be required and paid for by the U.S. Navy in order to protect the citizens in the "warning areas". The failure of the Navy to notify the California State Department of Health and the California Air Resources Board also shows that the Navy is in violation of NEPA and Proposition 65.

EIS authors acknowledge that toxins such as uranium and chromium are not just released into air and water by explosions of Naval guns, missiles, and bombs. They also note that chromium, chromium compounds, depleted uranium, and other hazardous metals and compounds are also released into the

ocean when artillery shells, grenades, high explosives, rockets, and submunitions<sup>2</sup> fail to explode and sink to the bottom. Table 3.3-3 on p. 3.3-8 shows that nearly 5 percent of all military ordnance fails to explode.

"Under the No Action Alternative," the authors announce, "a total of 25,856 naval gunshells would be expended over an ocean area of approximately 122,400 nm<sup>2</sup>." Astonishingly, as emphasized in my February 15 preliminary comments, the EIS *absolutely nowhere* says *whether those figures are per day, per month, per year, or for how many years past*. Assuming for the sake of the authors' immortal souls that the figures are per year, that would mean some 1,292.8 pieces of unexploded ordnance sinking to the ocean floor every year for an undisclosed number of years. From each of these, according to the EIS, would leach every year undisclosed quantities of barium chromate, potassium perchlorate, phosphorus, titanium compounds, depleted uranium, lead oxide, lead chromate, ammonium perchlorate, fulminate of mercury, and lead azide.

That these are hazardous materials the authors note, but then conclude, yet again with absolutely no references or proof whatever: "However, the hazardous constituents decompose slowly, so existing ocean and tidal currents would dissipate these materials to undetectable levels."

Obviously, the EIS authors never troubled to do even a minimal search, which would have brought up numerous articles on highly toxic carcinogenic compounds leaching from unexploded ordnance in sea water, and uptake by marine organisms of such toxins. Some of this research was even done by, for, or in spite of the U.S. Navy in waters off of Vieques, which had been pounded by Navy "training" and "testing" exercises for decades. The EIS nowhere even mentions worldwide concern over the extreme and growing hazard of unexploded ordnance in aquatic environments, as evidenced by international scientific meetings convened specifically to address this issue. See, e.g., "Cancer-causing Toxins Linked to Unexploded Munitions," *Science Daily*, February 18, 2009; also see U.S. Congressman Earl Blumenauer's UXO (unexploded ordnance) Caucus.

The EIS authors' omission of critical information on where and for how long it's No Action Alternative actions have been depositing incredibly toxic materials into our ocean amounts to fraudulent concealment of hazards which the Navy knows or should have known could have serious, significant impacts on marine ecosystems and the humans who depend on them. Indeed, the total failure to address this issue strongly suggests an EIS written to support a pre-ordained proposal, assiduously leaving out inconvenient facts that contradict pre-ordained conclusions. The EIS should therefore be withdrawn and the NEPA process started over again.

While the EIS authors acknowledge the phenomenon of synergism, they apparently labor under the incorrect assumption that the word applies only to sonar. Should they actually read the wealth of research on the numerous toxins the Navy dumps with abandon into coastal waters, they would see many references to synergistic effects among different compounds. Lest the authors have forgotten or never knew, *synergism* occurs when the effects of two or more chemicals combined are greater than and/or different from the sum of their effects separately. Many references for chromium and chromium compounds, for example, emphasize that their extremely toxic effects are susceptible to synergism with other elements and conditions, particularly in aquatic systems. This information is not cited in the E.I.S. The E.I.S. failure to address synergism among the pollutants it produces further invalidates its stunning array of unfounded conclusions.

The failure to address synergism is further compounded by the total failure to address the already

2 Any munition that, to perform its task, separates from a parent munition.

Dictionary of Military and Associated Terms. US Department of Defence 2005.

compromised aquatic environment of coastal Pacific waters, or how *all* of the Navy's supposed alternatives would exacerbate such pre-existing conditions. A brief search shows that numerous government reports and scientific studies have raised serious concerns about the levels of pollutants being flushed into the ocean by Pacific river systems. The Columbia River, for example, carries toxic loads of dioxins, PCBs, pesticides, radionuclides, heavy metals and other toxins into the ocean (see, e.g., "Columbia River toxins moving up food chain," by Craig Welch, *Seattle Times*, July 10, 2008), where currents and winds carry them to our beaches and coastal waters both north and south of the river mouth. (see, e.g., Paul D. Komar, *The Pacific Northwest Coast: Living with the Shores of Oregon and Washington*, 1997) Other studies have periodically found similar contaminants in other coastal rivers. The EIS failure to address the existence of these well-known pollutants thus omits mention of any synergistic or additive effects of mixing them with the Navy's toxic effluvia, or of how Naval explosions will stir up poisons such as dioxins, PCBs, and heavy metals lodged in sediments and disperse them into the marine environment.

The Navy authors' apparent assumption that Navy activities occur in a pristine, untouched environment is a dangerous and extremely foolish fiction, compounded by the equally dangerous and foolish assumption that synergism does not occur among Navy pollutants and pre-existing poisons. In addition, coastal waters are also subject to polluted runoff, waste water effluent, and other toxic contamination from land based sources. Fiction and false assumptions have no place in environmental impact statements.

In addition, there has not been time to critique the EIS's lengthy discussions of sonar impacts and explosion damage to marine organisms; a brief skim of those sections, however, indicates that they were prepared without valid scientific studies and or any other type of scientific and reviewed documentation.

The EIS's gross omissions, false references, nonexistent references, and blatant, repeated assumptions based on no references at all render the document entirely invalid, both scientifically and legally. The EIS should therefore be withdrawn and the entire proposal re-examined and begun from scratch, with qualified personnel clearly identified and the public adequately informed and involved from the start.

There are a series of issues which are not addressed in the E.I.S.:

- 1) Will the U.S. Navy be using JP-8 and other toxic additives to produce obscurant smoke clouds? (See Attachments A & B & F)
- 2) Will the Navy be deploying Obscurant smoke? If yes, what is the chemical composition of such smoke and what is their toxic impact on the environment? What protection will be given to U.S. Coast Guard personnel and troops in the area of said tests? (See Attachment C & S)
- 3) Will the Navy be using Rapid Obscurant Systems? If yes, what type of chemicals will they be using and where will it be released? (See Attachment D)
- 4) Will the Navy be using paintball guns and what payload and toxic chemicals will they be using? (See Attachment E)
- 5) I am requesting a copy of the "Screening Level Ecological Risk Assessment of some Military Munitions and Obscurant -related Compounds for Selected Threatened and Endangered Species". (See Attachment G)
- 6) Will the Navy be using Obscurant Fog Oils? What environmental and health effects are associated with these Fog Oils? (See Attachment H & I)
- 7) Will the Navy be using Obscurant Graphite Flakes? What are the toxic health and environmental effects of Graphite Flakes and mixed aerosols? (See Attachment J & L)

- 8) Will the Navy be using Emissive Smokes or Flares? What chemicals are these items composed of and what are the environmental and human health impacts? (See Attachment K)
- 9) The Navy E.I.S. states that White Phosphorus (+felt smokes), and Red Phosphorus will be used in this Navy Warfare Testing Program. What is the toxicity level for mammalian and Aquatic Organisms? What is human health toxicity? Will the U.S. Coast Guard and Navy personnel be required to wear protection masks when this chemical is used? What precautions will be used to protect marine life and fisherman from this usage? How will these chemicals move from water usage when blown over lands areas? How will it impact human Health when these clouds move over land areas? (See Attachments M, N, O & Q)
- 10) Will the Navy be using obscurants over land areas? If yes, what is the type of chemicals that will be used and what is their toxicity? (See Attachment P)
- 11) What is the assessment of Fog Oil Deposition During Military Training Exercises used by the Navy? What are the environmental and health effects + types of toxics used in these programs? (See Attachment R)

The Navy EIS fails to meet the requirements of the National Environmental Policy Act (NEPA) in at least five major respects, any one of which warrants withdrawal of the entire EIS and cancellation of the actions proposed therein. The five major failures identified so far are:

- 1) Failure to identify past, current and future activities in the waters off Oregon and northern California, which comprise most of the area involved in the EIS;
- 2) Total failure to support a finding of no significant impact for Oregon and northern California waters;
- 3) Repeated assumptions of no impact based on absence of data, and repeated findings of no significant impact unsupported by either data or references;
- 4) Blatant failure to examine obvious and feasible alternatives such as reducing or eliminating all testing and training actions in the area; and
- 5) Monumental failure to notify the public or concerned parties from the outset, precluding meaningful review and comment at any stage of EIS development.
- 6) Because the EIS purports to discuss environmental impacts of Navy activities in an area encompassing the entire Oregon coastline and part of northern California, territorial waters, and beyond, its failure to identify those activities precludes meaningful comment and invalidates all conclusions of no significant impact, rendering the entire document invalid.
- 7) A "no action" alternative should, as the name implies, mean no action. In Navy parlance, however, the Navy's deceptively named "No Action" alternative reveals that "no action" actually means to continue activities which the Navy claims to be already conducting off the Oregon coast; however, the EIS nowhere identifies what those current activities are, where they are occurring, for how long they have occurred, or what environmental impacts of those activities have already accrued; furthermore, the EIS nowhere identifies any previous environmental assessment or environmental impact statement describing/identifying these current and past activities or discussing their environmental impacts.
- 8) The question of past and current Naval activities is highly significant. For example, the EIS acknowledges that past and present activities off the Oregon coast have involved the use of rounds

comprised of depleted uranium. Uranium, depleted or otherwise, is an exceptionally persistent material in the environment. The EIS revelations of Navy use of depleted uranium thus raise very serious concerns about how long the Navy has been using depleted uranium rounds in the Pacific Ocean, how much was used per year, where that use has occurred, and what environmental impacts have already accrued from such use, such as uptake by fish and synergistic effects with other wastes and products from Naval exercises. The EIS mentions none of these issues.

- 9) As current activities off the Oregon coast and the California coast are not covered in this or any environmental impact statement or assessment, such activities are therefore unlawful and the Navy should immediately desist from all activities of any kind in waters from the Oregon coast to the 250-mile limit until such time as valid environmental documents, addressing all current and past activities and their effects, have been prepared and adequately made public to the people of Oregon and California.
- 10) The EIS states that its proposed action "may have coastal effects" in the state of Washington, but that "For the States of Oregon and California, the Navy has determined that its Proposed Action will have no coastal effects." (The coastal zone extends 3 nautical miles seaward from the shoreline.) The EIS absolutely *nowhere* describes either what the proposed action is or will be in Oregon and California coastal waters, or what the effects of the unnamed proposed action will be in those waters. For example, see Table 4-2, pp. 4-3 to 4-7, "Past, Present and Planned Future Projects in the Offshore Area," which does not include a single project identified for Oregon or northern California. For further example, the word "Oregon" occurs on some 106 pages in Vol. I of the EIS, and on 23 pages of Vol. II; on at most only *five (5)* of those pages does the phrase "no significant impact" also occur, and on *none* of these five pages are any specific actions or locations mentioned. **The Navy EIS determination that the Proposed Action will have no coastal effects in Oregon and California is therefore arbitrary, capricious, and entirely unsupported by any evidence whatsoever. The entire EIS should be withdrawn for that reason alone.**
- 11) Throughout the entire EIS, the Navy exhibits a blatant don't look, don't tell policy toward environmental effects, using an absence of data to justify an assumption that no effects occur. For example, see p. 3.6-15, "The study area for consideration of impacts on marine plants and invertebrates includes the open ocean west of Washington, Oregon, and northern California...Aircraft overflight and training activities are assumed to have no impacts to marine communities, because impacts of sound on plants and invertebrates are unknown and difficult to quantify." Similarly, the EIS repeatedly states a finding of no significant impact totally unsupported by data or even references, e.g., Tables ES-3 Summary of Effects – Geology and Soils; and ES-4 Summary of Effects – Air Quality, which typically conclude, with no data, first that the impacts would be the same as Alternative 1 (for which no specific activities, locations, or impacts were described for Oregon or California), and second, that no significant impacts would therefore occur.
- 12) The EIS fails to examine or consider such obvious and feasible alternatives as reducing or eliminating all training and testing activities in the ocean and territorial waters off Oregon and northern California.
- 13) From the outset, the monumental failure of the Navy to notify the public or concerned parties of its proposed actions totally precluded meaningful public participation, review, and comment. The Navy's sole public notice of the 2007 notice of intent/scoping phase of this EIS was placed in a single Oregon newspaper, the *News Guard*, a small weekly in the coastal town of Lincoln City read by very few people outside the immediate vicinity of Lincoln City, thus depriving most of the state and entire coast of any notice whatsoever.

According to the EIS, notice of publication of the current draft EIS was placed in the same paper in December, 2008, announcing a public meeting January 30 in South Beach (not Depoe Bay, as the EIS states). However,

the editor of the *News Guard* emphatically reported that the paper received no such notice whatsoever and knew nothing of the public meeting until after it occurred. Although the Navy placed small, almost invisible, unreadable ads in a Newport newspaper prior to the meeting<sup>3</sup>, every person who attended – including the Newport paper's reporter -- stated that they learned of it only through word of mouth. Thus a meeting and publication of vital importance to the entire state and especially its 362-mile coastline, was to all intents and purposes a well-kept secret, regardless of Navy protestations to the contrary. **The EIS and the proposals the Navy has devised should therefore be withdrawn and the entire process started over from scoping notice on.**

1 Note also that online versions of said papers (in which Navy had placed ads of open house/hearing) do not carry all of the advertising present in the hard copy. Therefore, notice was even more limited than expected, because it was limited to readers who had access to a hard copy of the paper, thus reducing notice to a much smaller potential population than might otherwise be expected in these Internet days. The Navy's failure to even investigate this possibility, let alone compensate for it by utilizing the many other easily available & inexpensive methods of providing adequate public notice of the issuance of the scoping process & EIS, provides additional support for an immediate finding of failure to comply with NEPA & the Navy's own regulations implementing NEPA and the conclusion that the EIS should be withdrawn & the scoping process restarted. This time with appropriate compliance with NEPA.

**In addition, it is alleged that NEPA was violated by the Navy with regard to notice and the public hearing held in Humboldt County, CA.**

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This is a request for documents pursuant to the Freedom of Information Act. I request that copies of the following documents, or documents containing the following information be provided to me:

1. List of actual authors/preparers of the Northwest Training Range Complex Draft Environmental Impact Statement/Overseas Environmental Impact Statement (henceforth, "DEIS/OEIS");
2. All communications with any and all contractors hired to prepare, and/or review, and/or consult on the DEIS/OEIS;
3. All intra- and inter- agency communications, related to the DEIS/OEIS, whose release is not prohibited by law, and for all communications with parties outside the agency.
4. Any and all Environmental Assessments concerning the activities covered in the DEIS/OEIS;
5. Decision documents related to decision(s) not to prepare an Environmental Assessment on activities covered in the DEIS/OEIS;
6. Records/documents/communications related to plan(s) to ensure appropriate communication with interested parties, and identifying which commands were responsible for ensuring public participation pursuant to 32 CFR § 775.11;

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3 Note also that online versions of said papers (in which Navy had placed ads of open house/hearing) do not carry all of the advertising present in the hard copy. Therefore, notice was even more limited than expected, because it was limited to readers who had access to a hard copy of the paper, thus reducing notice to a much smaller potential population than might otherwise be expected in these www days. The Navy's failure to even investigate this possibility, let alone compensate for it by utilizing the many other easily available & inexpensive methods of providing adequate public notice of the issuance of the scoping process & EIS, provides additional support for an immediate finding of failure to comply with NEPA & the Navy's own regulations implementing NEPA and the conclusion that the EIS should be withdrawn & the scoping process restarted. This time with appropriate compliance with NEPA.

7. Records relating to decisions on locations, dates, and times of public meetings regarding the DEIS/OEIS;
8. Records relating to decisions on methods of providing notice of publication of DEIS/OEIS to interested parties and the public;
9. Records relating to decisions on choice of medium (CD, hard copy, web site or other) and location/recipient of the DEIS/OEIS for public review;
10. Records of the budget and actual itemized accounting of expenditures for this DEIS/OEIS, including, but not limited to, the scoping process, public notification process, printing, including public relations material, and all contractor fees.

This is a request for documents pursuant to the Freedom of Information Act. I request that copies of the following studies cited in the NWTRC DEIS/OEIS be provided to me:

Hanson, W.C. 1974. Ecological Considerations of Depleted Uranium Munitions. Report LA-5559. Los Alamos Scientific Laboratory of the University of California. Los Alamos, NM. (citation Vol 2, p. 8-4 of EIS)

Toque, C. 2006. Marine Environmental Depleted Uranium Survey Report – Kirkcudbright Training Area – 2-4. Environmental Sciences Department, Institute of Naval Medicine. Gosport, UK. (citation Vol. 2, p. 8-5 of EIS).

**The above two studies are the only references cited in the EIS to support its conclusion of no significant impact on marine ecosystems, marine organisms, or human health from the Navy's use and disposal of thousands of pounds per year of depleted uranium ordnance in our offshore waters.**

A long and futile search of the scientific literature, both on-line and through library services, has revealed that neither of the above references was ever published in any peer-reviewed scientific publication. As it is impossible to determine the validity of the EIS claim of no significant impact without reviewing its sources, I ask that the comment period be extended at least 30 days beyond my receipt of the above studies in order to allow qualified scientific reviewers to evaluate the studies and determine whether they support the EIS claims regarding depleted uranium safety. .

In order to determine my status for purposes of determining applicability of any fees, I am a representative of the news media affiliated with Planet Waves, Daily Kos, and other on-line news outlets and this request is made as part of news gathering and not for commercial use, and this request is made for the express purpose of informing the public.

I request a waiver of all fees/costs for this request. Disclosure of the requested information to me is in the public interest because it is likely to contribute significantly to public understanding of the operations and activities of the government and is not in my commercial interest. I will be disseminating this information for the public benefit via the above-named websites, and via public interest groups such as Oregon Shores Conservation Coalition, Greenpeace, Audubon Society, and NRDC, Congressman Mike Thompson (California), the Agriculture Defense Coalition, the Bonfire Coalition, and my local elected representatives.

I ask that my request receive expedited processing because the comment period for the DEIS/OEIS ends on March 11, 2009, unless the Secretary of the Navy grants the Congressional

delegation's request for an extension. The information requested is essential for preparing meaningful comments on both the DEIS/OEIS contents and the adequacy of the notice provided by the Navy.

For the above reasons, I advise the U.S. Navy to withdraw its EIS and correct the grave shortcomings of both its content and the process of public notice identified above before bringing its proposals forward again.

**The Navy's conduct in both the preparation and the public notification for this EIS has been extremely disillusioning, as it violates not just federal law but the Navy's own proud tradition of integrity and concern for its own people and for the public it serves.**

I am requesting that the States of California and Oregon be excluded from this Navy project. In addition, the Navy project in Oregon should be stopped until the concerns expressed by the fisherman and other citizens are addressed. Citizens in all four states should say "no" to this proposed project and others like it. In addition, the public comment date should be extended for at least three months and the public notified in all four states so that a complete investigation of this program can be held and the questions of United States citizens can be answered.

I look forward to hearing from you in the near future.

Sincerely,

*Rosalind Peterson*  
Rosalind Peterson

Post Office Box 499

Redwood Valley, CA 95470

(707) 485-7520

E-Mail: [info@californiaskywatch.com](mailto:info@californiaskywatch.com)

\*\*\* I am requesting answers to these questions sent to Mrs. Sheila Murray who failed to respond to the following questions which were E-Mailed to her on:

March 2, 2009

Mrs. Sheila Murray  
Navy Region Northwest Environmental  
Public Affairs Officer  
Call 360-340-5398.

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Dear Mrs. Murray

We spoke on the telephone a few days ago and I was wondering if you would clarify a few issues for me?

- 1) Did you say that the Navy was phasing out the use of depleted uranium?
- 2) Did you say that Tungsten or Titanium would be used as the replacement?
- 3) Do you know where I can get a copy of the Hawaiian, Marianas Islands, E.I.S.?
- 4) Do you know where I can get a copy of the Southern California Navy E.I.S.?
- 5) How long have these programs been underway in the Hawaiian and Marianas Island?
- 6) When was the first Oregon program initiated along their coast? Is there an EIS available for this first program?

Thank you very much for speaking with me the other day.

I look forward to hearing from you in the near future.

Respectfully,

*Rosalind Peterson*  
Rosalind Peterson  
(707) 485-7520  
E-Mail: [info@californiaskywatch.com](mailto:info@californiaskywatch.com)

For more information and copy of the U.S. Navy Environmental Impact Statement (EIS): [www.nwfrangecomplexeis.com](http://www.nwfrangecomplexeis.com) Comment Form: <http://www.nwfrangecomplexeis.com/NtrcCommentForm.aspx>

CC: California Congressman Mike Thompson  
California Senator Barbara Boxer  
California Senator Dianne Feinstein  
The Mendocino County Board of Supervisors-California

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**Smoke from Long Chain Alcohols**

Authors: William E. White; Ronald S. Grieb; EDGEWOOD RESEARCH DEVELOPMENT AND ENGINEERING CENTER  
ABERDEEN PROVING GROUND MD

Abstract: A fuel composed principally of C11 to C14 hydrocarbons, JP-8, is too volatile to produce a persistent smoke cloud. Gas phase catalytic oxidation of the hydrocarbon components would yield new compounds (alcohols, carboxylic acids, and diols) that have lower vapor pressures. This report describes experiments to determine the merit of long chain alcohols for obscuration. Dodecanol (C12) produced effective smoke at ambient temperatures but was ineffective above 100 deg F. Decanol (C10) was less effective at ambient temperatures. Thus, it appears that the oxidation products of the C11 through C14 components in JP-8 will be useful for obscuration purposes. The program now shifts to identifying catalysts to effect the required oxidation without consuming the entire carbon chain. ig p.3

*Attachment A*

**Fuel Composition Analysis of Endothermically Heated JP-8 Fuel for Use in a Pulse Detonation Engine**

Authors: Eric A. Nagley; AIR FORCE INST OF TECH WRIGHT-PATTERSON AFB OH SCHOOL OF ENGINEERING AND MANAGEMENT

Abstract: Waste heat from a pulse detonation engine (PDE) was extracted via zeolite catalyst coated concentric tube-counter flow heat exchangers to produce supercritical pyrolytic conditions for JP-8 fuel. A sampling system and method were developed that enabled samples of reacted fuel to be extracted during steady state operation. Samples were taken over a range of heat exchanger exit temperatures from 820 K (1016 F) to 940 K (1232 F). Offline analysis of liquid and vapor fuel samples indicated fuel decomposition via typical pyrolytic reaction pathways. The liquid analysis showed conversion of parent fuel components with formation of unsaturates (aromatics and alkenes) and smaller alkanes. The gaseous products consisted of predominantly C1-C3 alkanes and alkenes (> 75% of total vapor yield) with moderate amounts of hydrogen and C4-C6 alkanes and alkenes. The components that were present in the stressed fuel samples were more detonable and could be linked to improved PDE performance. The ignition time decreased by over 20% as temperature increased from 820 K (1016 F) to 935 K (1224 F) and by more than 30% when compared to unreacted (flash vaporized) JP-8.

*Attachment B*

### Smoke on The Horizon

Authors: Frank E. Montgomery; Gary L. Broxton; NAVAL SURFACE WARFARE CENTER CRANE DIV IN

**Abstract:** The U.S. Navy has not operationally deployed obscurant smoke to hide capital ships from being targeted by enemy gunners for many years. One serious drawback to the use of a smoke cloud to cover a ship is that the obscured ship also cannot accurately target the enemy. However with the sensors and guidance systems of today's anti-ship missiles, the older obscurant clouds represented by fog oil type smoke pots will not be effective to mask a ship from many advanced sensors. With the use of new additives and/or new compositions, missiles' sensors can be blocked from achieving lock onto targets. Smoke deployment of the obscurant where the cloud passes over the ship is not advisable due to the effects on ship sensors, gun/missile defensive systems as well as toxic effects of the smoke cloud on ship's personnel. Smoke on the horizon will place the obscurant cloud at a distance between the ship and the threatening missile. With the advent of the Navy's cooperative engagement capability (CEC), multiple ship and air sensors' data are distributed throughout a battle fleet by a discrete data link. Engagements are moving from a platform centered logic to a network centered logic. A single ship now has sensor eyes both from its own onboard systems in addition to other sensors from other units of the battle group both in the air and on the surface. Threat data can be automatically integrated and implemented to either spoof the threat or destroy it based on a preset computational decision process. Threat speed, angle of arrival (AOA), time of arrival (TOA), and the situational awareness (SA) of the fleet units positions, speed and direction will be known as the threat data from multiple sensors are integrated. Decision processes will automatically take the most appropriate defensive actions based on continuous updates of the threat's position and heading direction. Smoke will be one component of a two component countermeasure system.

*Attachment C*

### Optics and Acoustics ■ Optical Countermeasures

#### History of Current U.S. Rapid Obscuration Systems

Authors: William G. Rouse; Raymond J. Malecki; EDGEWOOD RESEARCH DEVELOPMENT AND ENGINEERING CENTER ABERDEEN PROVING GROUNDMD

**Abstract:** This report documents the history of armored vehicle smoke/obscurant protection using grenades and dischargers in rapid obscuration systems in the United States. The history begins with the response to the Arab-Israeli conflicts and the threats of the 1960s and ends with the technology and hardware advances made to deal with threats of the year 2000.

*Attachment D*

**Improved Paintball Design and Alternative Payloads**

Authors: John J. La Scala; Michael Maher; ARMY RESEARCH LAB ABERDEEN PROVING GROUND MD

**Abstract:** Gelatin paintballs of various shapes and sizes have been prepared to improve the range and accuracy of standard paintball guns for military prison and other military applications. These different marker shapes have been fired successfully, and the effect of shape on range and accuracy is in the process of being determined using computer simulation. Alternative payloads have been incorporated into these more aerodynamic markers and standard paintballs. Commercially available infrared (IR) and ultraviolet (UV) chemicals were used as unobtrusive markers. Anti-traction payloads, including plant oil, propylene glycol, and silicon oil, were found to be qualitatively effective in reducing traction. Obscurant payloads that are opaque pigmented liquids that cure upon exposure to the moisture in air were developed, preventing simple removal of the obscurant. In addition, foaming obscurants are being developed for paintball applications.

*Attachment E*

**Fuel Composition Analysis of Endothermically Heated JP-8 Fuel for Use in a Pulse Detonation Engine**

Authors: Eric A. Nagley; AIR FORCE INST OF TECH WRIGHT-PATTERSON AFB OH SCHOOL OF ENGINEERING AND MANAGEMENT

**Abstract:** Waste heat from a pulse detonation engine (PDE) was extracted via zeolite catalyst coated concentric tube-counter flow heat exchangers to produce supercritical pyrolytic conditions for JP-8 fuel. A sampling system and method were developed that enabled samples of reacted fuel to be extracted during steady state operation. Samples were taken over a range of heat exchanger exit temperatures from 820 K (1016 F) to 940 K (1232 F). Offline analysis of liquid and vapor fuel samples indicated fuel decomposition via typical pyrolytic reaction pathways. The liquid analysis showed conversion of parent fuel components with formation of unsaturates (aromatics and alkenes) and smaller alkanes. The gaseous products consisted of predominantly C1-C3 alkanes and alkenes (> 75% of total vapor yield) with moderate amounts of hydrogen and C4-C6 alkanes and alkenes. The components that were present in the stressed fuel samples were more detonable and could be linked to improved PDE performance. The ignition time decreased by over 20% as temperature increased from 820 K (1016 F) to 935 K (1224 F) and by more than 30% when compared to unreacted (flash vaporized) JP-8.

*Attachment F*

**Screening Level Ecological Risk Assessments of Some Military Munitions and Obscurant-related Compounds for Selected Threatened and Endangered Species**

Authors: Katherine Von Stackleberg; Craig Amos; C. Butler; Thomas Smith; J. Famely; M. McArdle; B. Southworth; Jeffrey Steevens; ENGINEER RESEARCH AND DEVELOPMENT CENTER CHAMPAIGN IL CONSTRUCTION ENGINEERING RESEARCH LAB

**Abstract:** Preparation for anticipated, unknown, and invariably adverse battlefield conditions requires military training activities involving military smokes and obscurants (S&Os) and related chemical compounds, and can result in the release of other chemical agents and military unique compounds (MUCs) associated with munitions. This study evaluates the potential long-term impacts on selected threatened and endangered species resulting from dispersion and deposition of vapors and particles found in the fog oils, hexachloroethane smoke, colored smokes, white phosphorus, and obscurants such as brass flakes and graphite flakes used during training. Residue from these constituents can deposit directly on plants and prey species favored by higher vertebrates and other species or can be taken up by plants and prey species from the soil. From the literature and installation use reports, the authors develop estimates of toxicity and exposure to calculate installation-specific screening-level risk for selected threatened and endangered species.

**Environmental and Health Effects Review for Obscurant Fog Oil**

Authors: C. J. Driver; M. W. Ligojke; J. L. Downs; B. L. Tiller; T. M. Poston; BATTELLE PACIFIC NORTHWEST LABS RICHLAND WA

**Abstract:** The health and environmental effects of fog oil smoke were reviewed and compared to predicted levels of fog oil materiel in the field during typical testing and training scenarios. Fog oil dispersion and deposition for simulated mechanical vaporization/condensation releases were determined using a modified Gaussian atmospheric plume-dispersion model. Human health risks include respiratory discomfort and skin irritation; however, with appropriate respiratory and skin protection, SGF-2 poses no toxic threat to human health during typical test and training exposures. Fog oil is moderately harmful, either chemically or physically, to plants and animals and can accumulate in food chains. Waterfowl are particularly vulnerable to adverse physical and chemical effects of lubricating oils and experience reproductive dysfunction at relatively low levels of exposure. However, specific information on SGF-2 impacts on avian or mammalian wildlife is lacking. The volatile nature of fog oil suggests that any impacts would be rapidly attenuated in the environment. Also, the area of impact under typical testing and training scenarios would be small and no terrestrial population/community structure changes are anticipated from its use. Aquatic systems appear to be the most vulnerable to fog oil toxicity and SGF-2 deposition on aquatic systems should be avoided.

*Attachment G*

*See Attachment H*

**Inhalation Toxicity of Cogenerated Graphite Flake and Fog Oil Smoke in the Brown-Headed Cowbird and the Red-Winged Blackbird, Size-Specific Inhalation Surrogates for the Red-Cockaded Woodpecker**

Authors:

**Abstract:** The red-cockaded woodpecker (*Picoides borealis*) is an endangered species found on many installations where troop readiness training is conducted. Conducting maneuvers under obscurant cover is important for realistic training. Generators that combine fog oil for visual obscurant with graphite flakes for infrared obscurant are being deployed for training scenarios. The effect of this combination on avian species was unknown. Our data indicate that toxicity of inhaled and/or preened graphite flake and cogenerated graphite flake and fog oil is low and similar to controls for adult cowbird and blackbird surrogates for the red-cockaded woodpecker. No mortality, body weight loss, clinical signs of toxicity, or respiratory function deficits were observed in the graphite flake-only, or cogenerated graphite flake/fog oil-treated birds when compared to controls. Hematological response was normal and no toxic effects in erythrocytes or leukocytes were found. While blood cell counts, spleen weights, and incidence of parasitism and disease were indicative of normal immune function in all treatments. Because repeated exposure that may result in particle overload in the lung has the greatest potential for causing harm to birds, it is suggested that exposures to high concentrations of the aerosol-graphite mixture be limited to fewer than eight within any 2-month period.

*Attachment I*

**Environmental and Health Effects Review for Obscurant Graphite Flakes**

Authors: C. J. Driver; M. W. Ligotke; W. G. Landis; J. L. Downs; B. L. Tiller; BATTELLE MEMORIAL INST. RICHLAND WA PACIFIC NORTHWEST LABS

**Abstract:** The health and environmental effects of obscurant graphite flakes were reviewed and compared to predicted levels of graphite flake material in the field during typical testing and training scenarios. Graphite flake dispersion and deposition for simulated mechanical and pyrotechnic releases were determined using a modified Gaussian atmospheric plume-dispersion model. The potential for wind resuspension of graphite flakes is controlled by weathering processes and incorporation rates in soil. Chemically, graphite flakes pose little risk to aquatic or terrestrial systems. Mechanical damage to plants and invertebrate and vertebrate organisms from the flakes is also minimal. In humans, the pathological and physiological response to inhaled graphite flake is similar to that induced by nuisance dusts and cause only transient pulmonary changes. Repeated exposure to very high concentrations (such as those near the source generator) may overwhelm the clearance mechanisms of the lung and result in pulmonary damage from the retained particles in unprotected individuals. However, these lesions either resolve with time or are of limited severity. Health effects of mixed aerosols of graphite and fog oil are similar to those produced by graphite flakes alone. Environmental impacts of fog oil-coated graphite flakes are not well known. Aquatic, Health effects, Terrestrial, Graphite flakes, Dispersion, Environmental effects.

*Attachment J*

#### Investigation of Emissive Smoke

Authors: Robert E. Turner; SCIENCE APPLICATIONS INTERNATIONAL CORP ABINGDON MD

**Abstract:** This report describes the procedure for creating a model for the description of radiation in and released from emissive smoke clouds, that is, clouds in which sources of radiation consist of the internal thermal radiation from an ambient medium as well as from isolated flares. The distribution of the flares in the cloud is in a regular, three-dimensional lattice and is uniform throughout. The model is applicable to the spectral region from the near ultraviolet to the microwave. This smoke cloud model can be used in realistic scenes using external atmospheric conditions and the optical and geometric properties of clouds, flares, targets, and a background. The model is designed to allow a wide range of parameter values to be used to quantify the physical, optical, and geometric properties of clouds, flares and targets, and backgrounds. The model contains simple input and output files, and is user friendly in that all parameters are explained with explicit units given for all constants and variables. However, the user of this model has to have some degree of familiarity with the basic concepts of radiometry and thermal physics.

*Attachment K*

#### Inhalation Toxicity of Cogenerated Graphite Flake and Fog Oil Smoke in the Brown-Headed Cowbird and the Red-Winged Blackbird, Size-Specific Inhalation Surrogates for the Red-Cockaded Woodpecker

Authors:

**Abstract:** The red-cockaded woodpecker (*Picoides borealis*) is an endangered species found on many installations where troop readiness training is conducted. Conducting maneuvers under obscurant cover is important for realistic training. Generators that combine fog oil for visual obscurant with graphite flakes for infrared obscurant are being deployed for training scenarios. The effect of this combination on avian species was unknown. Our data indicate that toxicity of inhaled and/or preened graphite flake and cogenerated graphite flake and fog oil is low and similar to controls for adult cowbird and blackbird surrogates for the red-cockaded woodpecker. No mortality, body weight loss, clinical signs of toxicity, or respiratory function deficits were observed in the graphite flake-only, or cogenerated graphite flake/fog oil-treated birds when compared to controls. Hematological response was normal and no toxic effects in erythrocytes or leukocytes were found. White blood cell counts, spleen weights, and incidence of parasitism and disease were indicative of normal immune function in all treatments. Because repeated exposure that may result in particle overload in the lung has the greatest potential for causing harm to birds, it is suggested that exposures to high concentrations of the aerosol-graphite mixture be limited to fewer than eight within any 2-month period.

*Attachment L*

**Mammalian Toxicology and Toxicity to Aquatic Organisms of White Phosphorus and 'Phossy Water', A Waterborne Munitions Manufacturing Waste Pollutant - A Literature Evaluation**

Authors: Dickinson Burrows; Jack C. Dacre; AWARE INC NASHVILLE TN

**Abstract:** Elemental white phosphorus is highly toxic to both experimental animals and man. Ingestion of even small amounts may produce severe gastrointestinal irritation, bloody diarrhea, liver damage, skin eruptions, oliguria, circulatory collapse, coma, convulsions and death. The fatal dose for man is about 1-1.4 mg/kg. No LD50 values have been determined. Acute effects differ considerably from chronic effects. Chronic poisoning (from ingestion or inhalation) is characterized by such effects on the osseous system as bony necrosis ('phossy jaw'), spontaneous fractures, as well as by anemia and weight loss. White phosphorus appears to be noncarcinogenic when fed to experimental animals. White phosphorus is also highly toxic to aquatic animals. Crustaceans and many molluscs are more tolerant, but still succumb to phosphorus concentrations of 1 ppm or less.

**Physical and Chemical Characterization of Military Smokes. Part III. White Phosphorus-Felt Smokes**

Authors: Sidney Katz; Alan Snelson; Narayanan Rajendran; Ronald Butler; Warren Bock; IIT RESEARCH INST CHICAGO IL

**Abstract:** An investigation of the U.S. Army White phosphorus-felt smoke munition is described in this report. The study included the chemical characterization of the smoke observations of the fog stability. The wedge-shaped generating munition is a pellet consisting of about 80% by weight of phosphorus somewhat irregularly distributed in the felt matrix. Principal impurities in the phosphorus were boron, silicon, iron, and arsenic, all at concentration levels near 0.1 to 0.01%. No significant levels of metallic impurities were present in the felt. Chemical analysis of the smokes indicated that they were predominately polyphosphoric acids. Identification was made of the first eight members of the series beginning with orthophosphoric acid and continuing to octaphosphoric acid. Higher members of the series were detected, but were not separated. Small traces of hydrocarbon and nitrogen derivatives were detected at the parts per million level and lower. No organophosphorus compounds were detected. Particle size distributions tended to center around 1.0 micrometer within a very narrow size distribution. Aging a cloud over a two-hour period led to slight increases in particle size. (Author)

*Attachment M*

*Attachment N*

**Summary and Evaluation for White Phosphorus Remediation: A Literature Review**

Authors: Yilda B. Rivera; Trudy Olin; R. M. Bricka; ARMY ENGINEER WATERWAYS EXPERIMENT STATION VICKSBURG MS

**Abstract:** This report summarizes an extensive literature search that was conducted regarding the environmental fate of white phosphorus (WP) and applicable treatment technologies. The health risks associated with WP exposure, documented environmental effects, transformation processes, degradation products, and the potentially applicable treatment technologies will be identified and evaluated. WP contamination has been identified in soil and water at military training and munitions production facilities and is the third highest ranked contaminant of concern of the U.S. Army (Feige and Strauss 1994). Until recently, long-term environmental contamination from the explosion of projectiles containing WP was considered unlikely due to the thermodynamic instability of WP in the presence of atmospheric oxygen. However, Berkowitz et al. (1981), in assessing the potential hazards associated with the use of phosphorus smoke munitions, reported that WP residues in aquatic systems can be extremely toxic. Berkowitz stated that the deposition or washout of any ungraded WP, especially in small water bodies, may create exposure risks to resident finfish, invertebrates, and waterfowl, even if resultant WP concentrations are in the low ppb range. All those concerns motivated the Interagency Testing Committee (ITC) to designate WP for priority testing under the Toxic Substances Control Act (TSCA) (BNA Chemical Regulation Daily, 1994). The ITC is a congressionally mandated committee comprised of representatives from more than a dozen Federal regulatory and research agencies. The ITC was established to make recommendations to the Environmental Protection Agency (EPA) regarding the chemical substances and mixtures to which the EPA would give priority consideration for the promulgation of rules. These rules are presented in 32 Code of

**Inhalation Toxicity of Cogenerated Graphite Flake and Fog Oil Smoke in the Brown-Headed Cowbird and the Red-Winged Blackbird, Size-Specific Inhalation Surrogates for the Red-Cockaged Woodpecker**

Authors:

**Abstract:** The red-cockaded woodpecker (*Picoides borealis*) is an endangered species found on many installations where troop readiness training is conducted. Conducting maneuvers under obscurant cover is important for realistic training. Generators that combine fog oil for visual obscurant with graphite flakes for infrared obscurant are being deployed for training scenarios. The effect of this combination on avian species was unknown. Our data indicate that toxicity of inhaled and/or preened graphite flake and cogenerated graphite flake and fog oil is low and similar to controls for adult cowbird and blackbird surrogates for the red-cockaded woodpecker. No mortality, body weight loss, clinical signs of toxicity, or respiratory function deficits were observed in the graphite flake-only, or cogenerated graphite flake/fog oil-treated birds when compared to controls. Hematological response was normal and no toxic effects in erythrocytes or leukocytes were found. White blood cell counts, spleen weights, and incidence of parasitism and disease were indicative of normal immune function in all treatments. Because repeated exposure that may result in particle overload in the lung has the greatest potential for causing harm to birds, it is suggested that exposures to high concentrations of the aerosol-graphite mixture be limited to fewer than eight within any 2-month period.

*Attachment A*

*Attachment P*

**Water Quality Criteria for White Phosphorus**

Authors: Kowetha A. Davidson; Patricia S. Hovatter; Catherine F. Sigmon; OAK RIDGE NATIONAL LAB TN

**Abstract:** Data obtained from a review of the literature concerning the environmental fate and aquatic and mammalian toxicity of white phosphorus are presented in order to derive Water Quality Criteria for the protection of humans and aquatic organisms and their uses. Laboratory and field studies indicate that white phosphorus is quite toxic to aquatic organisms, with fish being more sensitive than macroinvertebrates. In dynamic bioassays with fishes, bluegill was the most sensitive species. The most sensitive life stages for fathead minnow are 30 day old and 60 day old fry. Aquatic macroinvertebrates are more resistant. Bioaccumulation is rapid and extensive, with the greatest uptake in the liver and muscle of fish and the hepatopancreas of lobster; however, depuration occurs within 7 days postexposure. Other toxic effects to aquatic organisms include cardiovascular and histological changes.

**Medical Criteria for Respiratory Protection in Smoke: The Effectiveness of the Military Protective Mask**

Authors: James C. Eaton; John Y. Young; ARMY BIOMEDICAL RESEARCH AND DEVELOPMENT LAB FORT DETRICK MD

**Abstract:** This report summarizes the results of a study of existing information on the exposure of troops to smoke, the health hazards of the smoke, and particularly the ability of the M17 and M40 masks to protect the soldier against the hazards of exposure to military smokes and obscuring agents. The findings of the study are as follows: (a) the masking policy is necessary and sufficient to protect troops from the hazards of operating in smoke; (b) an alternative to the military mask for use with fog oil and diesel fuel smokes could be chosen from among the approved orinasaal dust, fume, and mist respirators, but this type of protection would not be appropriate for HC, metal, or phosphorus smokes; (c) the greatest uncertainty in the assessment of health hazards from smoke and obscuring agents involves measurement of exposure, which determines the duration of effectiveness of the protection afforded by the mask in smoke; (d) special precautions should be taken when deploying HC smoke, which has caused fatalities when used improperly -- the masking policy must be strictly enforced, and HC should never be deployed in and enclosed space. Keywords: Hexachloroethane, White phosphorus, Red phosphorus, Toxic hazards. (aw)

*Attachment 2*

*See Attachment 5*

April 13, 2009

**Assessing Fog Oil Deposition to Simulated Plant Surfaces During Military Training**

Authors: Thomas A. Douglas; Jerome B. Johnson; Charles M. Collins; Charles M. Reynolds; Karen L. Foley; Lawrence B. Perry; Arthur B. Gelvin; Susan E. Hardy; ENGINEERING RESEARCH AND DEVELOPMENT CENTER HANOVER NH COLD REGIONS RESEARCH AND ENGINEERING LAB

**Abstract:** Fog oil is used as a battlefield obscurant during military operations. A smoke-like aerosol is emitted from mobile generators by volatilizing standard grade fuel #2 and blowing it through a heated manifold. In this study we monitored fog oil aerosol deposition to environmental surfaces during training. This project had two goals: to assess fog oil aerosol deposition (as total petroleum hydrocarbon, TPH) to environmental media and to quantify whether glass membrane fiber filters are a suitable proxy for plant surfaces. In support of these goals we exposed glass membrane fiber filters and collectors simulating plant surfaces (silk flowers and polypropylene leaves) to fog oil training. Samplers were deployed during winter and summer events. In the summer, TPH concentrations on leaves, flowers, and filters were strongly correlated, though flowers and leaves consistently yielded TPH concentrations 60% higher than filters. In the winter, TPH concentrations on polypropylene leaves and silk flowers were not correlated with concentrations measured on glass membrane filters. TPH concentrations measured during the winter were 100 times lower than in the summer. We attribute the winter anomalies to the presence of a low-level inversion at the ground surface that could have affected fog oil aerosol transport and deposition.

*Attachment R*

**Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, Washington 98315  
ATTN: Mrs. Kimberly Kier – NWTRC**

**RE: Navy Environmental Impact Statement Public Comment Deadline: April 13, 2009**

**Dear Mrs. Kier:**

**This is my second public comment response to the U.S. Navy Environmental Impact Statement (E.I.S.). This letter is my public comment statement, along supporting letters and documentation that I wish added to the public comment record.**

- 1) I first learned time I learned about the Navy E.I.S., was on February 17, 2009. The public in Mendocino County, California, was not notified about this E.I.S. proposal by newspaper or any other public media, such as radio advertising. Therefore, we feel that this has been a violation of NEPA laws and that the review period for the E.I.S., should be extended and U.S. Congressional Hearing on this subject should be immediately commenced.
- 2) The United States Navy held a public hearing in Mendocino County, Ukiah, CA, on March 31, 2009. The hearing was first made public on Friday, March 27, 2009, which did not give Mendocino County residents adequate time to take time off from work to travel hundreds of miles to this hearing location during work hours. (See Attachment 1 & 1A)
- 3) The U.S. Navy personnel at this meeting made it clear that most of the training would not be conducted in Oregon or California but in the State of Washington. What guarantee do we have, in writing, that this was a true statement by the Navy personnel at this meeting?
- 4) The DVD of the March 31, 2009, Board of Supervisors – Navy Public Hearing, is provided to you today with the request that it be made part of the public record and the questions of the participants and speakers in this meeting be answered in the Navy E.I.S. (See Attachment B)
- 5) The Navy stated within the March 31, 2009, hearing that they would not be harming or killing many marine mammals, if any...thus, we are requesting that the Navy address this issue in light of the NOAA, U.S. Department March 11, 2009, Federal Register Notice, with the Navy asking for a permit to "take" 32 species of marine mammals (2.3 million per year, each year-per Congressman Thompson's letter dated March 12, 2009, to Dr. Jane Lubchenco, NOAA). (See Attachment C & C-1 & C-2)
- 6) Please note that sonar is the only harm that the Navy claims with regard to Marine Mammals. However, explosions, debris, chemicals and other airborne pollutants all will have negative impacts on animals, marine mammals, fish, water quality, soils and air quality. The Navy fails to address these issues by not asking for a permit to "take" marine mammals by these methods. In addition, weapons explosions will harm aquatic life.
- 7) I am enclosing the April 5, 2009, letter from Ava Peterson to Ms. Susan Rice, Permanent Representative of the United States of America to the United Nations for addition to the public comment portion of the E.I.S. In this letter Ms. Peterson states that the "taking" of

marine mammals in the Navy Warfare Testing Expansion could lead to increased tensions throughout the world as marine mammals are part of the world's food supply and also support the tourism and fishing industry of many countries including the coastal areas of the United States.

This action by the United States Navy could cause an escalation of worldwide testing programs by other nations that would endanger more marine mammal around the world and thus cause problems with increased stresses on other natural resources to feed these populations. The concerns and questions addressed in this letter should be answered by the Navy and attached as part of the public comment record.(Attachment D)

- 8) The Navy "Extent Map" on E.I.S. Page ES-2 shows that all of Oregon, Washington, part of Idaho, almost all of Northern California, and part of Nevada is under a warning area. Please see the highlighted area on Exhibit E. Why would these entire areas be designated as "warning areas" and what is the definition of "warning area"?
- 9) I have written two articles on the Navy E.I.S. warfare expansion. I would like them added to the public comments record and the questions therein be answered in the Navy E.I.S. (See Attachment F – Article: February 21, 2009 & Article: March 28, 2009)
- 10) The E.I.S. is written is over 1,000 pages long and is written in "dense technical language" without providing through a FOIA request copies of reports, studies, or other materials used by the Navy in making their E.I.S. case for this expansion. Since proper NEPA notification was not given to the residents of Mendocino County, CA and other Northern California counties, we are requesting additional time to comment on the current E.I.S., and to have public and U.S. Congressional hearings on this proposal along with the Navy request to have NOAA grant a permit for the "taking" of marine mammals. (See Exhibits G & H)
- 11) It should be noted that the long listed of hazardous materials to be used in the air or on the ground is an extensive list. Many of these chemicals are harmful to man, mammals, birds, all marine life, coastal areas, soils, water, and air quality. The Navy E.I.S. does not address all of these chemicals and the synergistic impacts that they will have in the areas they will be used in the ocean, on land, and also as airborne pollutants. The Navy E.I.S. should address all of these issues.
- 12) It appears that the Navy is using documents of unpublished, non-peer reviewed studies upon which to base their conclusions. It is time for the Navy to use only peer-reviewed, scientific studies for their facts and assertions and omit those that don't comply with normal scientific research and peer-reviews.
- 13) There are many questions about the "NO ACTION" alternative which appears on the surface to be almost as bad as the other alternatives. The E.I.S. fails to identify these baseline activities and scientific studies used for their assertions.
- 14) The Navy E.I.S. makes environmental evaluations which have little basis in fact and appear to be based on assertions rather than scientific and peer-reviewed studies.
- 15) The Navy does not want to provide critical documents upon which their assumptions are based. These documents should be immediately released to the public or the assumptions based on these documents should be removed from the Navy E.I.S.
- 16) The E.I.S. fails to identify the type of experiments that will be conducted in the coastal Pacific Ocean waters off Oregon and California. This is another failure of the Navy E.I.S.

- 17) The absence of scientific data and reports leads one to believe that the Navy is relying on inferences and opinions in their conclusions with regard to the escalation and expansion of their warfare testing program. Unless the Navy is willing to provide such data it appears that the conclusions in the E.I.S. is highly suspect of being inaccurate and based on opinions rather than sound scientific data and peer-reviewed studies.

My Navy FOIA request for documents remains unanswered so I am enclosing a copy of my request for documents to be put into the public comment record. This request was submitted online on February 18, 2009.

The above comments and questions are just part of the whole story. There are some many inaccurate statements, emissions, and false references that it makes the entire E.I.S. invalid. Thus, the Navy should scrap this E.I.S. (withdraw it), and re-examine this entire issue from the beginning in order to protect the public, our air, water and soil quality, and the aquatic life therein. Our tourism and fishing industries need protection as well from these programs.

The violation of NEPA is a prime example of the Navy's indifference in protecting the public.

Sincerely,



Rosalind Peterson  
Post Office Box 499  
Redwood Valley, CA 95470  
(707) 485-7520

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Vice-Chair  
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Chief Executive Officer

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Fourth District

J. DAVID COLFAX  
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JEANINE B. NADEL  
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COUNTY OF MENDOCINO  
BOARD OF SUPERVISORS  
501 Low Gap Road • Room 1090  
Ukiah, California 95482

## NEWS RELEASE

Contact: Kristi Furman at 707/463-4221

Issued: March 26, 2009

Ukiah, California, March 26, 2009 – The Mendocino County Board of Supervisors will conduct a special meeting on Tuesday, March 31, 2009, at 4:00 p.m., to receive a presentation from U.S. Navy representatives regarding the proposed Northwest Training Range Complex Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS). The EIS/OEIS examines the potential environmental effects of the Navy's proposal for future range management operations and activities. The Complex consists of numerous individual training areas in the Pacific Northwest, including beyond the coast of Northern California.

Responding to the concerns expressed by constituents, the Board recently discussed the matter relative to the local impacts on marine life, the environment, and other impacts, and transmitted a letter of formal comment on the proposed action. Subsequently, the Navy extended the public comment period through April 13, 2009.

U.S. Navy representatives John Mosher, Commander U.S. Pacific Fleet, Northwest Environmental Liaison and Project Manager; Kimberly Kler, Naval Facilities Engineering Command, Environmental Planner and Project Navy Technical Representative; and Brian Wauer, Project Operations Specialist, will be on hand to present detailed information and respond to Board and public comment.

Supervisor David Colfax, 5<sup>th</sup> District, noted, "This is a rare opportunity for people to provide the Navy with information about our coast and our commitment to ensuring its continued well-being."

Congressman Mike Thompson (D-CA), added, "I'm pleased that the Navy will be conducting an in-person meeting so that everyone will have a chance to voice their concerns. We need to gather as much information and public input as possible so that we can fully evaluate the impact this will have on marine animals and the fishing community."

The public is invited and welcome to attend every Board meeting. Alternatively, meetings may be viewed via live web streaming from the Board's website at [www.co.mendocino.ca.us/bos/cgi-bin/meetings.pl](http://www.co.mendocino.ca.us/bos/cgi-bin/meetings.pl). For more information, please contact the Mendocino County Clerk of the Board's office at 463-4221.

###

### THE BOARD OF SUPERVISORS

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Fifth District

Attachment 2

Attachment 1A

3. Salmon Bycatch: Final action on Bering Sea Chinook Salmon Bycatch Environmental Impact Statement (EIS).

4. Groundfish Issues: Review discussion paper on proposed Bristol Bay Trawl Closure and Walrus issues, and receive Council direction; Review discussion paper on GOA Tanner and Chinook Bycatch and receive Council direction.

5. Amendment 80 Cooperatives: Review annual report from cooperative; Final action on Amendment 80 Cooperative Formation criteria.

6. Marine Protection Act Nomination Process: Review NMFS letter and discuss next steps. (T)

7. Other Groundfish Issues: Review and approve halibut sorting Exempted Fishery Permit (T); Review Habitat Area of Particular Concern (HAPC) evaluation criteria and Essential Fish Habitat (EFH) 5-year review methodology (SSC Only).

8. Scallop Issues: Receive Plan Team Report and review and approve Stock Assessment Fishery Evaluation (SAFE) Report.

9. Staff Tasking: Review Committees and tasking.

10. Other Business

The SSC agenda will include the following issues:

1. Salmon Bycatch
2. Halibut Sorting EFP
3. HAPC evaluation criteria and EFH 5 year review methodology
4. Scallop Issues

The Advisory Panel will address most of the same agenda issues as the Council, except for 11 reports. The Agenda is subject to change, and the latest version will be posted at <http://www.fakr.noaa.gov/npfmc/>.

Although non-emergency issues not contained in this agenda may come before these groups for discussion, in accordance with the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), those issues may not be the subject of formal action during these meetings. Actions will be restricted to those issues specifically identified in this notice and any issues arising after publication of this notice that require emergency action under Section 305 (c) of the Magnuson-Stevens Act, provided the public has been notified of the Council's intent to take final action to address the emergency.

#### Special Accommodations

These meetings are physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Gail Bendixen at (907) 271-2809 at least 7 working days prior to the meeting date.

Dated: March 5, 2009.

Tracey L. Thompson,  
Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.  
[FR Doc. E9-5085 Filed 3-10-09; 8:45 am]  
BILLING CODE 3510-22-S

#### DEPARTMENT OF COMMERCE

##### National Oceanic and Atmospheric Administration

RIN: 0648-XN98

##### North Pacific Fishery Management Council; Public Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of a public meeting of the North Pacific Fishery Management Council's Pacific Northwest Crab Industry Advisory Committee (PNCIAC).

SUMMARY: The PNCIAC will meet in Seattle, WA. The meeting is open to the public.

DATES: The meeting will be held on Monday, March 23, 2009, from 9 a.m. to 1 p.m.

ADDRESSES: The meeting will be held at the Leif Erikson Hall, 2247 NW 57th Street, Suite 403, Seattle, WA 98107 (in Ballard); telephone: (206) 769-3474.

Council address: North Pacific Fishery Management Council, 605 W. 4th Ave., Suite 306, Anchorage, AK 99501-2252.

FOR FURTHER INFORMATION CONTACT: Dr. Diana Stram, Council Staff; telephone: (907) 271-2809.

SUPPLEMENTARY INFORMATION: The PNCIAC will review the Economic Data Reports; Review Alaska Fishery Science Center draft metadata and continue work on revisions of EDR forms; and discuss of Marine Stewardship Council/sustainable fisheries certification issues and take action as needed.

Although non-emergency issues not contained in this agenda may come before this group for discussion, in accordance with the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), those issues may not be the subject of formal action during this meeting. Actions will be restricted to those issues specifically identified in this notice and any issues arising after publication of this notice that require emergency action under Section 305 (c) of the Magnuson-Stevens Act, provided the public has been notified of the Council's intent to take final action to address the emergency.

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Dated: March 5, 2009.

Tracey L. Thompson,  
Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.  
[FR Doc. E9-5104 Filed 3-10-09; 8:45 am]  
BILLING CODE 3510-22-S

#### DEPARTMENT OF COMMERCE

##### National Oceanic and Atmospheric Administration

RIN 0648-XN97

##### Taking and Importing Marine Mammals; Navy Training and Research, Development, Testing, and Evaluation Activities Conducted within the Northwest Training Range Complex

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; receipt of application for letter of authorization; request for comments and information.

SUMMARY: NMFS has received a request from the U.S. Navy (Navy) for authorization to take marine mammals incidental to military readiness training activities and research, development, testing and evaluation (RDT&E) to be conducted in the Northwest Training Range Complex (NWTRC) for the period beginning September 2009 and ending September 2014. Pursuant to the implementing regulations of the Marine Mammal Protection Act (MMPA), NMFS is announcing our receipt of the Navy's request for the development and implementation of regulations governing the incidental taking of marine mammals and inviting information, suggestions, and comments on the Navy's application and request.

DATES: Comments and information must be received no later than April 10, 2009.

ADDRESSES: Comments on the application should be addressed to Michael Payne, Chief, Permits, Conservation and Education Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910-3225. The mailbox address for providing email comments is [PR1.0648-XN97@noaa.gov](mailto:PR1.0648-XN97@noaa.gov). NMFS is not responsible for e-mail comments sent to

addresses other than the one provided here. Comments sent via e-mail, including all attachments, must not exceed a 10-megabyte file size.

FOR FURTHER INFORMATION CONTACT: Jolie Harrison, Office of Protected Resources, NMFS, (301) 713-2289, ext. 166.

#### SUPPLEMENTARY INFORMATION:

##### Availability

A copy of the Navy's application may be obtained by writing to the address specified above.

(See ADDRESSES), telephoning the contact listed above (see FOR FURTHER INFORMATION CONTACT), or visiting the internet at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>. The Navy's Draft Environmental Impact Statement (DEIS) for NWTRC was made available to the public on December 26, 2008, and may be viewed at <http://www.nwtrangecomplexxeis.com/>. During the initial 45-day public comment period, the Navy hosted five public hearings. The comment period was subsequently extended 30 days and another public hearing was held at an additional location.

##### Background

In the case of military readiness activities, sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce (Secretary) to allow, upon request, the incidental, but not intentional, taking of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) if certain findings are made and regulations are issued or, if the taking is limited to harassment, notice of a proposed authorization is provided to the public for review.

Authorization for incidental takings may be granted if NMFS finds that the taking will have no more than a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses, and that the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such taking are set forth.

NMFS has defined "negligible impact" in 50 CFR 216.103 as: "an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival."

With respect to military readiness activities, the MMPA defines "harassment" as:

(i) any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild [Level A Harassment]; or (ii) any act that disturbs or

is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered [Level B Harassment].

##### Summary of Request

In September, 2008, NMFS received an application from the Navy requesting authorization to take individuals of 32 species of marine mammals (4 pinniped and 28 cetacean) incidental to upcoming training and RDT&E activities to be conducted in the NWTRC (off the coasts of Washington, Oregon, and northern California) over the course of 5 years. These training and RDT&E activities are classified as military readiness activities. The Navy states that these training activities may expose some of the marine mammals present in the area to sound from various mid-frequency and high-frequency active tactical sonar sources or to pressure from underwater detonations. The Navy requests authorization to take individuals of 32 species of marine mammals by Level B Harassment.

##### Specified Activities

In the application submitted to NMFS, the Navy requests authorization to take marine mammals incidental to conducting training events and RDT&E utilizing mid- and high frequency active sonar sources and explosive detonations. These sonar and explosive sources will be utilized during Anti-submarine Warfare (ASW) Tracking Exercises, Mine Avoidance Training, Extended Echo Ranging and Improved Extended Echo Ranging (EER/IEER) events, Missile Exercises, Gunnery Exercises, Bombing Exercises, Sinking Exercises, and Mine Warfare Training. Table 1-1 in the application lists the activity types, the equipment and platforms involved, and the duration and potential locations of the activities.

##### Information Solicited

Interested persons may submit information, suggestions, and comments concerning the Navy's request (see ADDRESSES). All information,

suggestions, and comments related to the Navy's NWTRC request and NMFS' potential development and implementation of regulations governing the incidental taking of marine mammals by the Navy's NWTRC activities will be considered by NMFS in developing, if appropriate, the most effective regulations governing the issuance of letters of authorization. The Department of Education is especially interested in public comment addressing the following issues: (1) Is this collection necessary to the proper functions of the Department; (2) will this information be processed and used in a timely manner; (3) is the estimate of burden accurate; (4) how might the Department enhance the quality, utility, and clarity of the information to be

Dated: March 6, 2009.

P. Michael Payne,  
Chief, Division of Permits, Conservation, and Education, Office of Protected Resources, National Marine Fisheries Service.  
[FR Doc. E9-5287 Filed 3-10-09; 8:45 am]  
BILLING CODE 3510-22-S

#### DEPARTMENT OF EDUCATION

##### Notice of Proposed Information Collection Requests

AGENCY: Department of Education. SUMMARY: The Acting Director, Information Collection Clearance Division, Regulatory Information Management Services, Office of Management, invites comments on the proposed information collection requests as required by the Paperwork Reduction Act of 1995.

DATES: Interested persons are invited to submit comments on or before May 11, 2009.

SUPPLEMENTARY INFORMATION: Section 3506 of the Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35) requires that the Office of Management and Budget (OMB) provide interested Federal agencies and the public an early opportunity to comment on information collection requests. OMB may amend or waive the requirement for public consultation to the extent that public participation in the approval process would defeat the purpose of the information collection, violate State or Federal law, or substantially interfere with any agency's ability to perform its statutory obligations. The Acting Director, Regulatory Information Management Services, Office of Management, publishes that notice containing proposed information collection requests prior to submission of these requests to OMB. Each proposed information collection, grouped by office, contains the following: (1) Type of review requested, e.g. new, revision, extension, existing or reinstatement; (2) Title; (3) Summary of the collection; (4) Description of the need for, and proposed use of, the information; (5) Respondents and (6) Reporting and/or Recordkeeping burden. OMB invites public comment.

The Department of Education is especially interested in public comment addressing the following issues: (1) Is this collection necessary to the proper functions of the Department; (2) will this information be processed and used in a timely manner; (3) is the estimate of burden accurate; (4) how might the Department enhance the quality, utility, and clarity of the information to be

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**COMMANDER,  
NAVY REGION NORTHWEST**

Sheila Murray Environmental Public Affair Officer  
1100 Hunley Rd., Silverdale, WA 98315-1100  
Phone: (360) 396-4981 Fax: (360) 396-7217

**FOR IMMEDIATE RELEASE**  
**Release # 03-070-09**

**March 11, 2009**

**Comment Period Extended to April 13  
for Northwest Training Range Complex DEIS/OEIS**

**SILVERDALE, Wash.** – The Navy is further extending the public comment period for the Northwest Training Range Complex Draft Environmental Impact Statement / Overseas Environmental Impact Statement (DEIS/OEIS) to **April 13**, to allow for additional public input.

Because of the continued public interest, the Navy is extending the period for public comments one month beyond March 11, 2009. Because the period would end on a weekend, the public comment period is extended through April 13, 2009.

This DEIS/OEIS examines the potential environmental effects of the Navy's proposal for future range management operations and activities. The Northwest Training Range Complex consists of numerous individual training areas in the Pacific Northwest. The range complex extends westward in the Pacific Ocean -- up to 250 nautical miles beyond the coast of Washington, Oregon, and Northern California.

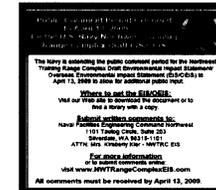
Public comments are a fundamental part of EIS/OEIS development and key to helping the Navy make informed decisions. For more information on this project, and several ways to provide public comment by the newly extended deadline, please visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com).

**For more information, please contact Mrs. Sheila Murray, Navy Region Northwest Environmental Public Affairs Officer, cell 360-340-5398.**

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#C-1

Home EIS/OEIS Range Sustainability Natural Resources Get Involved Documents



Welcome to the Northwest Training Range Complex EIS/OEIS Website

Welcome to the Navy's official Web site for the Northwest Training Range Complex Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS). This EIS/OEIS examines the potential environmental effects of the Navy's proposal for future range management operations and activities. The Northwest Training Range Complex consists of numerous individual training areas in the Pacific Northwest. The range complex extends westward in the Pacific Ocean (to 250 nautical miles [nm] beyond the coast of Washington, Oregon, and Northern California) and east to Idaho.



**Northwest Training Range Complex Training**  
The Northwest Training Range Complex is the principal range for aviation, surface, submarine, and special warfare units based in Washington State. The range includes marine waters off the coasts of Washington, Oregon, and Northern California.

NWTRC Video



To stop this video right click on the picture and uncheck play



**Environmental Stewardship**  
The Navy manages its land, air, and sea ranges, facilities, and natural resources as integrated training range complexes to be able to meet its current and future requirements while protecting natural and cultural resources and minimizing effects to the environment.

As responsible environmental stewards, the U.S. Navy is concerned about the potential effects of its operations on the environment and is committed to complying with all applicable federal laws, regulations and policies. The Navy spends millions of dollars each year on research to better understand the potential effects of its activities on the environment to help ensure that Navy policy and compliance are based on real science.



**The Navy Wants Your Input**  
Public involvement is a fundamental part of the EIS/OEIS development and the Navy wants and appreciates your comments. The Navy has established several venues and informational resource areas for the public to learn more and provide input.

**Future Meetings**  
The Draft EIS/OEIS is available for public review on this web site and in designated public libraries. Public hearings are being held from January 27 through February 26 at various locations in Washington, Oregon, and northern California. Comments will be addressed in the Final EIS/OEIS.

007430

April 5, 2009

H.E. Ms. Susan E. Rice  
Permanent Representative of the United States  
of America to the United Nations  
140 East 45<sup>th</sup> Street  
New York, New York 10017

Dear Dr. Rice:

I watched 60 Minutes tonight as they aired a program about hospital cutbacks and the tragedy surrounding those that are sick, don't have health insurance and recent job losses. The Nature program on P.B.S. was another horror story about the loss of frogs around the world and the loss of their habitat. The trees in Mendocino County, California, where I live are in various stages of decline or dying; the Redwoods, the Douglas Fir, Manzanita, Oaks, and so many more trees are also declining across the United States. I know that Honey Bees and other pollinators are in decline, jeopardizing our food supply in the United States and around the world.

I watch the daily bailouts of corporations and their executives that committed fraud upon the people of the United States and the world (too big to fail - to rich to go to jail for fraud, in most cases). And we have no plans to regulate them to protect the public. The bailout \$Billions should be going to those that need it most...the sick, the poor, and the homeless. We are saving corporations, banks, and their shareholders are the expense of the American people...without investigating and prosecuting those who defrauded us.

People the world over are in one crisis or another due to financial manipulation, war, genocide, hunger and illness. Instead of war and a new world economic order that will just escalate money and resources being sold to the highest bidder or transferred from the poor to the wealthy based on military might... we need to work for humanitarian justice for all. People everywhere suffer the consequences of war and now the United States has taken steps to complicate and destroy more natural resources that belong to all of the people of the world.

On February 17, 2009, I learned that the U.S. Department of Defense and the U.S. Navy are expanding their warfare testing program on the West Coast of the United States. And they have asked permission from NOAA, The National Marine Fisheries Service (March 11, 2009-U.S. Federal Register), to decimate 2.3 million species of marine mammals per year for the next five years in the Pacific Ocean...all in the name of practicing for war.

The \$Billions in warfare spending is about to go up again to support another disastrous program that will ruin marine ecosystems, disrupt food supplies to millions of mammals, and decimate them for five years until nothing is left but a polluted ocean, polluted air, water, and soil. We hear daily that the oceans are in peril and that marine mammals are endangered and threatened more and more with each passing year...and yet the United States government, in the name of war practice, intends to destroy this precious resource for not only the people of the United States but those around the world that depend upon the oceans for food and tourism.

President Obama has escalated the war in Afghanistan and is now running covert and non-covert incursions inside Pakistan while bombing Pakistan according to our news media. The Iraq war will continue for years draining valuable financial resources needed elsewhere in our country. And now \$Billions will be blown up when the U.S. Navy starts destroying marine mammals and sensitive ecosystems later this year. Our government has now decided that a bombing war against the Pacific Ocean and its marine mammals will save us...from what?

It appears that this endeavor will continue to escalate the new cold war and the arms race that were escalated under the Bush Administration during the last eight years. The new and continuing Defense Department plan is to conduct war practice in the Pacific Ocean, the Atlantic Ocean, and the Gulf of Mexico...destroying marine

mammals as a byproduct of testing. The good will of a new President and a new administration will be crushed under the weight of this new warfare testing program and this new threat to a food supply that feeds the world.

Once the United States takes this action other powerful military nations will then escalate their testing programs in the oceans to protect themselves from our war practice and thus will decimate what is left of our oceans. The poor nations will suffer debilitating food losses and turn to land resources for food, escalating the cutting of forest lands and destroying more ecosystems.

And yet, President Obama, and the United Nations is silent on this issue...acquiescing to escalating military expansion and warfare testing. War has become a self-perpetuating cost at all levels and keeping the arms industry fully employed (the military-industrial complex), is the main goal. Many people in the United States are finding this plan unacceptable and not worth the price we will all have to pay in the end. Therefore, many citizens across the United States have decided to join together to fight this new Navy warfare testing expansion and are going to try and protect the oceans and our marine mammals from this fate.

These programs are being slipped by without press coverage and without objections from the vast majority of our elected officials. Many were never informed of these programs and the few that were informed were silent until the public began to find out what was going on and decided to say "no". Now we are demanding that our elected officials stand up and fight this plan. A few elected officials in Oregon and one in California have enabled the public to have two extra public hearings and two public comment date extensions at the federal level.

The United States Senate and the U.S. House of Representatives have been dead silent on this issue. They speak of protecting the earth, marine life, and the oceans on the campaign trail...but when it counts they are absent from this discussion. If the media doesn't carry the story and if our elected officials ignore it...they are hoping that no one will notice the disastrous, worldwide price that will be paid by their silence. The governors of our coastal states are silent, refusing to protect their fishing and tourism industries, to protect endangered species, and the health of their constituents.

I am appealing this decision by the United States Department of Defense and the United States Navy. I am also appealing to the worldwide community to protect and save the world's marine mammals from this fate. War and warfare testing is not the solution to our problems. And making war on our oceans and contaminating this valuable worldwide resource for war, benefits no one, and will tax other natural resources.

I hope that you will consider bringing this issue to a full discussion at the United Nations. The decision that the United States makes today with regard to our oceans and its marine mammals is critical. We should lead in protecting these resources, not destroying them.

Now, in my 93<sup>rd</sup> year I find that the world that I loved and enjoyed is being destroyed by my country. My children, grandchildren, and great grandchildren will not enjoy the world and its natural resources as they were during my lifetime. My great grandchildren will only know our marine mammals as they look in picture books if this Navy warfare testing program is allowed to proceed. Thus, I am writing to you to step forward to preserve our natural resources and our oceans which have provided so much for all of us. And I will continue to do so for as long as Freedom of Speech is allowed in this country. I look forward to hearing from you in writing, in the near future, on this critical issue.

Respectfully,



Ava Peterson  
Post Office Box 499  
Redwood Valley, CA 95470  
(707) 485-8400

CC: The United Nations - Secretary-General Ban Ki-moon  
First Avenue - 41<sup>st</sup> Street  
New York, New York 10017

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**Note:**

The U.S. Navy plans to expand warfare testing in areas where NOAA lists these species as endangered in Washington, California, and Oregon:

- 1) Southern Resident Killer Whale – Endangered
- 2) Humpback Whale – Endangered
- 3) Blue Whale – Endangered
- 4) Fin Whale – Endangered
- 5) Sei Whale – Endangered
- 6) Sperm Whale Endangered
- 7) Steller Sea Lion – Threatened
- 8) Sockeye Salmon – Endangered
- 9) Chinook Salmon Endangered
- 10) Coho Salmon – Endangered
- 11) Chum Salmon – Endangered
- 12) Steelhead – Endangered

There are many more which are “Endangered” or “Threatened” on this listing by NOAA. How will they survive the Navy Warfare testing program? We have NOAA, the National Marine Fisheries Service, engaged in trying to save our marine mammals. Now we have the Navy prepared to decimate them, their habitat, and their food supply as well. This plan makes no sense.

Many species migrate and many more are stationary in nature along with the habitat they depend upon. None of them have the ability to withstand a full-blown Navy warfare testing program.

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### **ACTION ALERT DEADLINE APRIL 10, 2009**

#### **STOP THE NAVY FROM “TAKING” 32 SPECIES OF MARINE MAMMALS IN THEIR 5 YEAR WARFARE TESTING PROGRAM IN THE PACIFIC OCEAN**

The United States Navy and the U.S. Department of Defense intend to expand their Northwest Training Range Complex. Their draft Environmental Impact Statement (EIS), dated December 2008, has an April 13, 2009, for public review and comment.

The expansion of their area of warfare operations will include the State of Washington, more areas in the State of Oregon, part of the state of Idaho, Northern California, and large areas of the Pacific Ocean along the Pacific coast. (The extent map designating this program area also extends throughout Northern California to the San Francisco Bay Area under an “Extent Map Warning Area” designation.)

**U.S. Department of Commerce - NOAA Definition:** “TAKE” Defined under the MMPA as “harass, hunt, capture, kill or collect, or attempt to harass, hunt, capture, kill or collect.” Defined under the ESA as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.”

**Published in the United States Federal Register on March 11, 2009:**

The United States Navy published an application, as an addendum to their expanded Warfare Testing program, in the U.S. Federal Register, dated March 11, 2009. This application from the Navy “...requests authorization to take individuals of 32 species of marine mammals during upcoming Navy Warfare testing and training to be conducted in the NWTR areas (off the Pacific coasts of Washington, Oregon, and northern California) over the course of 5 years...”

The Navy Warfare Testing Program will “...utilize mid- and high frequency active sonar sources and explosive detonations. These sonar and explosive sources will be utilized during Antisubmarine Warfare (ASW) Tracking Exercises, Mine Avoidance Training, Extended Echo Ranging and Improved Extended Echo Ranging (EER/IEER) events, Missile Exercises, Gunnery Exercises, Bombing Exercises, Sinking Exercises, and Mine Warfare Training...” (More listed in Navy E.I.S.)

The “taking” of marine mammals negatively impacts the entire ecology of our oceans and the life in them which feeds large numbers of people and other species around the world. It should be noted that the list of toxic chemicals that the Navy proposes to use is a long one as noted in the Navy E.I.S. Depleted uranium, red and white phosphorus, and a whole host of chemicals known to be toxic not only to man, but to marine life, are being served up on the “Navy Warfare Chemical Menu” that will contaminate our air, water, and soil.

Contact all of your elected officials today – Ask for more Public Hearings – File Public Comment Complaints – and ask your elected officials to Extend the Public Comment Deadline and oppose this Navy Warfare Testing program.

**PETITION to STOP NAVY WARFARE TEST PROGRAM** <http://www.californiaskywatch.com>

<http://www.nwtrangecomplexeis.com/Documents.aspx> United States Navy Environment Impact Statement

<http://www.nwtrangecomplexeis.com/NtrcCommentForm.aspx> U.S. Navy Public Comment Form Online

Write to: Naval Facilities Engineering Command Northwest, 1101 Tautog Circle, Suite 203 Silverdale, Washington 98315 ATTN: Mrs. Kimberly Kier – NWTRC EIS Deadline: April 13, 2009

NOAA Public Comments Address to: Michael Payne, Chief, Permits Conservation and Education Division, Office of Protected Resources National Marine Fisheries Service 1315 East-West Highway, Silver Spring, MD 20910-3225. Deadline: April 10, 2009

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**Addendum April 6, 2009:**

There is no acceptable form of “mitigation” that will protect our marine mammals. And just how many places is the U.S. Navy going to be practicing for war in the future?

We now know that sonar and other warfare exercises are planned for the Atlantic Ocean, the Pacific Ocean, the Hawaiian Islands, the Mariana Islands, the Gulf of Mexico, Washington, Oregon, Southern California, North Carolina, and other areas. We also know that Northern California, Oregon, and Idaho are being added to this list in 2009. According to Congressman Henry Waxman of California, in a letter to NOAA dated March 12, 2009, these tests will affect “...literally every coastal state...”

It is impossible to calculate how many marine mammals have lost their lives and habitats or food supplies due to ongoing ocean testing in the past. Now the United States intends to “take” marine mammals on a massive scale. It is time for everyone to stand up and say “no”! Ava Peterson

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For More Information: Rosalind Peterson E-Mail: [info@californiaskywatch.com](mailto:info@californiaskywatch.com) (707) 485-7520  
<http://www.californiaskywatch.com> OR <http://newswithviews.com/Peterson/rosalindA.htm>

March 12, 2009

## Protect Whales During Navy Training Exercises

Deadline April 3, 2009

Dear Colleague:

Please join us in sending the attached letter to Jane Lubchenco, Undersecretary for Oceans and Atmosphere for the Department of Commerce, expressing support for the National Oceanic and Atmospheric Administration's review of measures that could reduce harm to whales and other marine mammals from the Navy's use of mid-range sonar.

The Navy estimates that its sonar training activities will "take" marine mammals more than 11.7 million times over the course of a five-year permit. The scale of these exercises and the vulnerability of protected species to sonar make it imperative that NOAA prescribe mitigation measures that will best protect marine mammals while still allowing the Navy to train effectively.

For more information, or to co-sign the letter, please contact Jeb Berman (Rep. Thompson, 53311) or Rob Cobbs (Rep. Waxman, 54407).

Sincerely,

**MIKE THOMPSON**  
Member of Congress

**HENRY A. WAXMAN**  
Member of Congress

C-2

March 12, 2009

Dr. Jane Lubchenco  
Undersecretary for Oceans and Atmosphere  
Department of Commerce  
14th and Constitution Avenue, N.W., Room 5128  
Washington, DC 20230

Dear Undersecretary Lubchenco:

On January 23, the National Oceanographic and Atmospheric Administration (NOAA) announced that it would conduct a comprehensive, 120-day review of measures to reduce environmental harm from the Navy's use of mid-frequency sonar in training exercises and then report the results to the Council on Environmental Quality. We are writing to encourage and express our strong support for this review process.

The sonar exercises at issue would take place off the Atlantic and Pacific coasts, Hawaii, Alaska and in the Gulf of Mexico – affecting literally every coastal state. In many regions, the Navy plans to increase the number of training exercises or expand the areas in which they may occur. Of particular concern are biologically sensitive marine habitats off our coasts, such as National Marine Sanctuaries and breeding habitat for the endangered North Atlantic right whale. In all, the Navy anticipates that its sonar exercises will "take" marine mammals more than 2.3 million times per year, or 11.7 million times over the course of a 5-year permit.

Under these circumstances, it is essential that NOAA prescribe mitigation measures that substantially reduce impacts on marine wildlife and habitat while allowing the Navy to train effectively.

We are confident that NOAA's review will identify the mitigation measures necessary to minimize environmental impacts and improve monitoring of affected populations, including the establishment of seasonal or geographic sonar exclusion areas that scientists have identified as the most effective available means of protecting vulnerable species and habitat.

We appreciate your consideration of this important matter, and your efforts to improve the health of our oceans.

Sincerely,

**MIKE THOMPSON**  
Member of Congress

**HENRY A. WAXMAN**  
Member of Congress

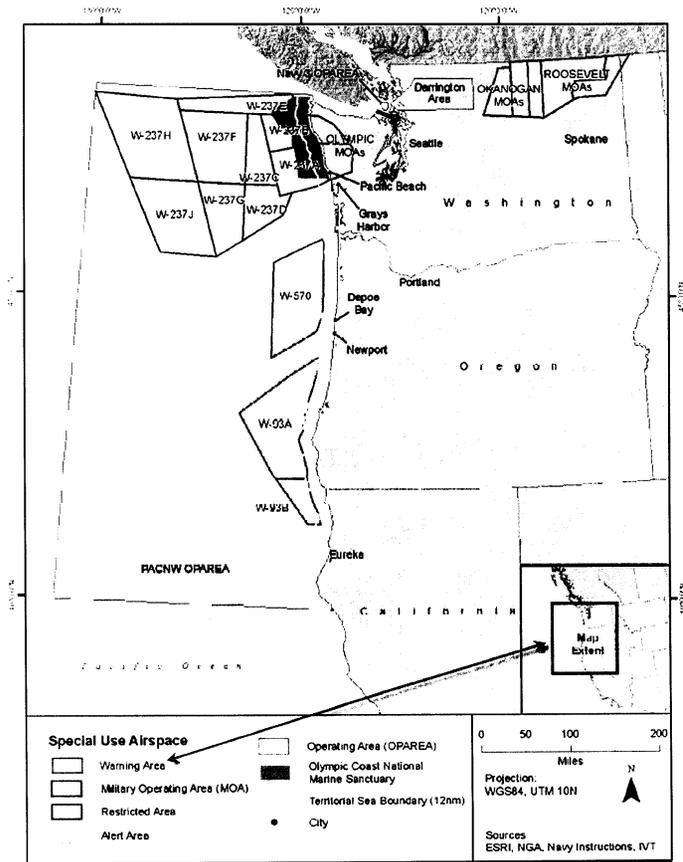


Figure ES-1: NWTRC EIS/OEIS Study Area

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UNITED STATES NAVY – DEPARTMENT OF DEFENSE - ENVIRONMENTAL IMPACT STUDY

PLAN TO USE PUBLIC LANDS, WATER RESOURCES, MARINE MAMMALS & HUMANS AS WARFARE TEST GUINEA PIGS

PUBLIC COMMENTS & QUESTIONS BY ROSALIND PETERSON

First Published by NewsWithViews.com on February 21, 2009

Post Office Box 499  
 Redwood Valley, California 95470  
 (707) 485-7520  
 E-Mail: [info@californiaskywatch.com](mailto:info@californiaskywatch.com)

<http://newswithviews.com/Peterson/rosalinda.htm>

The United States Navy and the U.S. Department of Defense have decided that their Northwest Training Range Complex, in the State of Washington, should be expanded, and have devised a draft Environmental Impact Statement (EIS), dated December 2008, for public review and comment. The expansion of their area of operation will include all of the State of Washington, all of the State of Oregon, part of the state of Idaho, and parts of Northern California. This area will also include large areas of the Pacific Ocean from California to the State of Washington. (The extent map designating this program area also extends throughout Northern California to the San Francisco Bay Area under a "warning area" designation.) **Once implement there is no end date noted in E.I.S.**

The U.S. Commander of the Pacific Fleet has given American citizens and residents of these states only a very short time to comment on their draft EIS: Published on December 30, 2008, with a **final public comment deadline extended from March 11, 2009 to April 13, 2009**, this document is approximately 1,000+/- pages in length with attachments. In addition to a short comment time the Navy limited public hearings to five, with only one held in Oregon, one in California, and no scheduled hearings to be held in Idaho. The Navy has allegedly failed to place information about this EIS in major newspapers or inform our elected representatives about this program.

Thus, citizens in California, Oregon, Idaho, and Washington are asking for a realistic extension of time to read, study, and comment on this decision by the Navy and the Department of Defense, past the March 11, 2009, deadline. It should be noted that most elected representatives in California and Oregon were not aware of this EIS or the consequences of this action by the Navy. The Navy should hold additional public hearings.

The Navy has declared that this draft was distributed to our elected representatives. If so, then why haven't our elected officials spoken up to defend our rights to be heard, required more public meetings and hearings in California, Washington, Idaho (where not one was held), and Oregon? The U.S. Navy, the U.S. Department of Defense, and the Commander of the U.S. Pacific Fleet have decided, without our consent, that that are going to use the Pacific Ocean off the Coast of California, Oregon and Washington and the land over four states to test weapons of war. They did not contact Senator Harry Reid of Nevada to obtain permission to use the Nevada Test Site for these warfare experiments. Instead they decided to use public lands, the Pacific Ocean, private property, wildlife, and humans as test subjects for warfare testing in four states.

The Navy also has decided to contaminate our air, water, and soils with the chemicals used in these programs. They fail to list many of the chemicals that are to be used in these programs. Thus, under the Freedom of Information Act, I am requesting a complete listing of all chemicals that will be used during these testing programs. It is easy for the Navy EIS to state that they can mitigate for such toxic usage but fail to disclose a complete listing of said chemicals. Also copies of contamination studies conducted at other military test sites where contamination problems were found and at bases (like Fallon Air Force Base), should be made public.

The draft EIS does not fully address the potential environmental impacts on multiple resources, like air quality, water resources, airborne acoustic environment (on land and in the ocean), biological resources, marine and terrestrial impacts and human health and safety. Without a complete understanding of their programs it is

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impossible to determine any impacts...thus, their EIS states that "...there are no significant impacts..." This statement is made throughout the entire document even though many of the chemicals used are highly toxic.

With the failure of the EIS to identify all of the air quality, water quality, and soils impacts of their programs this EIS appears to be a whitewash designed to stampede this program through as fast as the Navy can implement it. And in listing only a few of the EPA list of toxic chemicals that will be released by military aircraft (like jet fuel emissions), the Navy has avoided any discussion of negative impacts on air and water quality. It is not sufficient to state that our air is already polluted and that additional pollutants will make no difference in air quality.

There is a short listing of hazardous materials, air pollutants, and pollutants from munitions, expended materials, and radioactive materials to be used in this project. I am requesting a complete listing of all chemicals that will be used by the Navy, Air Force, and any other branch of the Department of Defense in this project. Inshore and offshore detonations may or may not be considered hazardous – however, until a complete listing of these chemicals is provided to the public there can be no public discussion of their hazard to public health, marine life, wildlife, public drinking water sources or our oceans. The avoidance of making this specific list public leads one to believe that these hazardous materials and chemicals are toxic and do pose environmental hazards. (California laws regarding toxic chemicals are more stringent than those in other states.)

It is interesting that Table ES-5 Summary of Effects (Page ES-16) – Hazardous Material does not list the name of any hazardous materials but tells the public that there is no problem with their use. How is it possible to have a summary table and list none of the chemicals to be used during the Navy program? They do note petroleum products, heavy metals, and combustion products but fail to list all of them along with the number of pounds or gallons to be used each year.

The public and marine life in the ocean will be subjected to various sonar and aviation noise, target noise, surface ship noise, weapons and target noise, EOD (no definition found), and underwater explosions. The Navy does admit that marine life will be harmed. However, harming our food supply, (fish like salmon), or the whales is not deemed important by the Navy, as they are expendable according to the EIS.

The Navy and the Department of Defense have decided that massive warfare expenditures for testing war products and weapons using marine life and the public as guinea pigs is in our best interest. And since a lot of the equipment and other items to be tested are experimental this leads one to believe that they are testing them on us for the first time to see how they work and if the public is harmed by their usage.

Just when did the citizens of the United States agree to be warfare test subjects when the Nevada Test Site and/or Area 51 which could be used for these tests? And why use the Pacific Ocean which is a migratory haven for our food supply and valuable marine life – including those that migrate along the Pacific Coast? And if this Navy project is approved and the health of the citizens, marine, or wildlife is threatened, who will be held responsible for this action and its negative consequences? The EIS does not give the public standing to say no to this project or the consequences of being used as guinea pigs during the testing. In addition, the EIS does not state how long the testing process will last – providing us with the information that once implemented testing could be conducted forever in these areas.

I am requesting, under the freedom of information act, answers to the above questions, listings of the chemicals used and their exact harm to the public, animals, marine life, water supplies, trees, agriculture, and soils. This includes information on whether or not depleted uranium, red and white phosphorus, weather modification and mitigation chemicals will be used, whether or not atmospheric testing will occur along with aviation over-flights and bombing runs. Will sonic booms rattle our homes and low flights of planes shake our houses and wake us up at night? I am also requesting complete documentation and information on Electronic Combat Training and how it will impact human health. Noise and electronic levels should also be made public.

My freedom of information act request also includes the following questions:

- 1) Will aluminum coated fiberglass be used (CHAFF) and how many pounds will be released each year?

- 2) What are the health effects of Chaff particulates on humans, wildlife, soil and water? Please provide a study on these human and wildlife health effects.
- 3) Will weather modification or mitigation programs be initiated during the Navy program? If so, what chemicals will be used in this program?
- 4) Will jets be allowed to fly at heights that leave persistent jet contrails that exacerbate global warming and change our climate (NASA Studies)? What impact will these programs have on California climate?
- 5) A complete listing of jet fuels to be used (+ additives), and the components of said jet fuel with information on the number of chemicals released and their impact on human health, agriculture, soils, water supplies, and wildlife. (Include JP-8, JP-10, and other new experimental jet fuels. The Jet Emissions report is available online at the EPA Website: <http://www.epa.gov/oms/regs/nonroad/aviation/r99013.pdf>)
- 6) A complete study of depleted uranium showing human health and animal health effects.
- 7) A complete study of the health effects of the compounds listed in Table 3.3-5 Page 3.3-11 and definitions of RDX and HMX (use and toxicity).
- 8) Toxicity of Red and White Phosphorus – humans, wildlife, soils, water supplies, marine life.
- 9) A complete listing of the propellants, explosives, pyrotechnics, chemical and riot agents, and smoke canisters (type of smoke and toxicity) is requested. And a complete listing of ground-based and atmospheric obscurants which will be used in these programs and their toxicity.
- 10) How much money will Washington, Oregon, California and Idaho be reimbursed for hazardous waste disposal and other toxic site clean-up from the Navy and the Department of Defense? It is requested that the reimbursement be 100% if this program is initiated.
- 11) A complete listing and studies of the synergistic effects of all chemicals used in the Navy program with associated health effects. This includes cumulative and synergistic effects as well.
- 12) Studies of the synergistic effects of project chemicals on bioaccumulation in fish and other marine food supplies. Did the Navy violate NEPA with no notification or public hearings in Mendocino County, CA?
- 13) Will northern California Maxwell MOAs (Military Operation Areas 1, 2 & 3), be used in this Navy Project? If yes, what will be the actions taken over these area by all branches of the military?
- 14) What effects will bomb blasts in the Pacific Ocean be on the San Andres and other California earthquake faults?

A rough study of the EIS leads one to believe that the Navy and the Department of Defense intends to leave behind a toxic pea soup of chemicals and other toxins in their wake, along with the human health effects and dead marine life. Many areas of California, Oregon, Washington, and Idaho would be contaminated from these experiments through airborne and water migration across these regions.

It also appears that nothing would be spared in testing weapons of war on the public (with the Nevada Test Site and Area 51 available for much of this testing and the Atlantic Ocean also available near Washington, D.C.). It appears that these Western States will be sacrificed for building and testing more weapons of mass destruction. Remember that sacrificing California, Washington, Oregon and Idaho is just the beginning...your state will be next.

I am requesting that the State of California be excluded from this Navy project. Citizens in all four states should say "no" to this proposed project and others like it. Contract your elected representatives today and let them know how you feel about this project. We are appealing to Congressman Mike Thompson, Senators Barbara Boxer and Dianne Feinstein to delay this project, allow more time for public comment, hold hearings in Mendocino County and hold hearings in other northern California counties, and to eventually oppose allowing California to become part of this costly, toxic warfare project. END

For more information and copy of the U.S. Navy Environmental Impact Statement (EIS): [www.nwtrangecomplexeis.com](http://www.nwtrangecomplexeis.com) Comment Form: <http://www.nwtrangecomplexeis.com/NtrcCommentForm.aspx>

## UNITED STATES NAVY – DEPARTMENT OF DEFENSE

THE NAVY REQUESTS PERMISSION FROM NOAA TO "TAKE", KILL OR HARM (OVER FIVE YEARS)

32 SPECIES OF MARINE MAMMALS IN THEIR U.S. PACIFIC OCEAN WARFARE TESTING PROGRAM

BY ROSALIND PETERSON March 28, 2009  
<http://newswithviews.com/Peterson/rosalindA.htm>

TO PRESIDENT BARACK OBAMA, SENATORS DIANNE FEINSTEIN, JEFF MERKLEY, RON WYDEN & BARBARA BOXER, U.S. SPEAKER OF THE HOUSE OF REPRESENTATIVES, NANCY PELOSI, U.S. CALIFORNIA CONGRESSMEN MIKE THOMPSON & HENRY WAXMAN, OREGON CONGRESSMEN KURT SCHRADER, EARL BLUMENAUER, PETER DEFAZIO & DAVID WU, THE GOVERNORS OF THE STATE OF CALIFORNIA & OREGON, THE ATTORNEY GENERAL OF THE STATE OF CALIFORNIA, U.S. ELECTED OFFICIALS AT EVERY LEVEL OF GOVERNMENT, AND CITIZENS OF THE UNITED STATES.

The United States Navy and the U.S. Department of Defense have decided that their Northwest Training Range Complex, in the State of Washington, should be expanded, and have devised a draft Environmental Impact Statement (EIS), dated December 2008, for public review and comment. The expansion of their area of operation will include the State of Washington, the State of Oregon, part of the state of Idaho, and Northern California. The final date for public comment is April 13, 2009.

These designated areas will also include large areas of the Pacific Ocean from California to the State of Washington and areas along the border between the United States and Canada. (The extent map designating this program area also extends throughout Northern California to the San Francisco Bay Area under an "Extent Map Warning Area" designation.) Once implemented there is no date specified in E.I.S. for this Navy Warfare Testing Program to end although various documents show that this is a five-year Navy Warfare Testing program.

The U.S. Commander of the Pacific Fleet has given American citizens and residents of these states only a very short time to comment on their draft EIS: Published on December 30, 2008, with the final public comment "stay of execution" deadline moved to April 13, 2009. U.S. citizens in four states demanded this extension and more public hearings and are opposing this catastrophic program. (This document is approximately 1,000+/- pages in length with attachments.)

The United States Navy has also published an application, as an addendum to their program, in the U.S. Federal Register, dated March 11, 2009. This application from the Navy "...requests authorization to "take" individuals of 32 species of marine mammals during upcoming Navy Warfare testing and training to be conducted in the NWTR areas (off the Pacific coasts of Washington, Oregon, and northern California) over the course of 5 years..." Final public comment date is April 10, 2009.

- NOAA Definition: "TAKE"
- Defined under the MMPA as "harass, hunt, capture, kill or collect, or attempt to harass, hunt, capture, kill or collect."
- Defined under the ESA as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

The Navy Warfare Testing Program will "...utilize mid- and high frequency active sonar sources and explosive detonations. These sonar and explosive sources will be utilized during Antisubmarine Warfare (ASW) Tracking Exercises, Mine Avoidance Training, Extended Echo Ranging and Improved Extended Echo Ranging (EER/IEER) events, Missile Exercises, Gunnery Exercises, Bombing Exercises, Sinking Exercises, and Mine Warfare Training..."

According to Navy Public Relations Officer Sheila Murray the United States Navy is already conducting warfare testing programs throughout the United States. During the last two years, it is alleged that the

Navy has issued nearly identical environmental impact statements for Navy Warfare Training Range Complexes in the following areas: the Mariana Islands, the Hawaiian Islands, Jacksonville Florida, Cherry Point, North Carolina, the Gulf of Alaska and Southern California. It is unknown, at this time, how many marine mammals have been killed in these programs since their inception.

The Pacific and Atlantic Oceans belong to all the people of the world not just the United States. This "taking" of marine mammals negatively impacts the entire ecology of our oceans and the life in them which feeds large numbers of people and other species around the world. Now the United States government has decided that California, Oregon, Washington, and Idaho, and the Pacific Ocean marine life in those areas, are expendable in order to test more war weapons of mass destruction. It should be noted that the list of toxic chemicals is a long one as noted in the Navy E.I.S. Depleted uranium, red and white phosphorus, and a whole host of chemicals known to be toxic not only to man, but to marine life, are being served up on the "Navy Warfare Chemical Menu" that will contaminate our air, water, and soil.

**White Phosphorus is just one of the chemicals on Navy Toxic Menu:** Berkowitz et.al (1981), in assessing the potential hazards associated with the use of phosphorus smoke munitions, reported that White Phosphorus residues in aquatic systems can be extremely toxic. Berkowitz stated that the deposition of washout of...White Phosphorus, especially in water bodies may create exposure risks to resident finfish, invertebrates and waterfowl, even if resultant White Phosphorus concentrations are in the low ppb range. 1996)

Water Quality Criteria for White Phosphorus – Authors" Kowetha A. Davidson; Patricia S. Hovatter, Catherine F. Sigmon, Oak Ridge National Lab TN: Abstract: Data obtained from a review of the literature concerning the environmental fate and aquatic and mammalian toxicity of **white phosphorus** are presented...Laboratory and field studies indicate that white phosphorus is quite toxic to aquatic organisms, with fish being the most sensitive...bioaccumulation is rapid and extensive, with the greatest uptake in the liver and muscle of fish and the hepatopancreas of lobster...other toxic effects to aquatic organism include cardiovascular and histological changes. (1987) (White Phosphorus is an airborne contaminant – used in fog oil and smoke obscurants.)

Mammalian Toxicology and Toxicity to Aquatic Organism of White Phosphorus and 'Phossey Water' by Authors Dickinson Burrows; Jack C. Dacre: AWARE INC Nashville TN – Abstract: "...white phosphorus is highly toxic to both experimental animals and man...**white phosphorus** is also highly toxic to aquatic animals..."

Concerned citizens in Oregon, Washington, Idaho, and California, along with citizens across the United States are protesting this action by the United States government and the United States Navy. Almost all of our elected representatives are silent when it comes to opposing this disastrous program. The major news media has elected not to cover this story leaving coverage to a few small newspapers located in remote areas.

A Navy public hearing will be held in Mendocino County, California on Tuesday, March 31, 2009.  
Ukiah, California – Board of Supervisors Chambers Time: 4:00 P.M.

We hope that everyone will join us in demanding that the current ongoing Navy weapons program in Oregon is suspended permanently and that the new proposed Navy Warfare Testing Program expansion is stopped. Public protests should be filed with your elected representatives, the President of the United States, and to both the United States Navy and NOAA (United States Department of Commerce).

- 1, <http://www.nwtrangecomplexeis.com/Documents.aspx> United States Navy Environment Impact Statement (Download one chapter at a time – works the best.)
- 2, <http://www.nwtrangecomplexeis.com/NtrcCommentForm.aspx> U.S. Navy Public Comment Form Online - Public Comment Deadline: April 13, 2009
- 3, Write to: Naval Facilities Engineering Command Northwest, 1101 Tautog Circle, Suite 203 Silverdale, Washington 98315 ATTN: Mrs. Kimberly Kier – NWTRC  
Navy Warfare Program Public Comment EIS Deadline: April 13, 2009

- 4, **NOAA Public Comments Address to:** Michael Payne, Chief, Permits Conservation and Education Division, Office of Protected Resources National Marine Fisheries Service 1315 East-West Highway, Silver Spring, MD 20910-3225. **Deadline: April 10, 2009**
- 5, **For More Information:** Rosalind Peterson **E-Mail:** [info@californiaskywatch.com](mailto:info@californiaskywatch.com) (707) 485-7520 <http://newswithviews.com/Peterson/rosalinda.htm>
- 6, **PETITION TO STOP NAVY PROGRAM:** <http://www.californiaskywatch.com>  
[http://www.californiaskywatch.com/documents/htmldocs/pp\\_usn\\_permission\\_to\\_kill\\_marine\\_mammals.htm](http://www.californiaskywatch.com/documents/htmldocs/pp_usn_permission_to_kill_marine_mammals.htm)
- 7, [http://www.nwtrangecomplexeis.com/Public%20DEIS%20files/Chapters%201-3/Resource\\_Section\\_6\\_Marine\\_Plants\\_and\\_Invertebrates.pdf](http://www.nwtrangecomplexeis.com/Public%20DEIS%20files/Chapters%201-3/Resource_Section_6_Marine_Plants_and_Invertebrates.pdf)
- 8, [http://www.nwtrangecomplexeis.com/Public%20DEIS%20files/Chapters%201-3/Resource\\_Section\\_6\\_Marine\\_Plants\\_and\\_Invertebrates.pdf](http://www.nwtrangecomplexeis.com/Public%20DEIS%20files/Chapters%201-3/Resource_Section_6_Marine_Plants_and_Invertebrates.pdf)
- 9, [http://www.nwtrangecomplexeis.com/Public%20DEIS%20files/Chapters%201-3/Resource\\_Section\\_7\\_Fish.pdf](http://www.nwtrangecomplexeis.com/Public%20DEIS%20files/Chapters%201-3/Resource_Section_7_Fish.pdf)
- 10, [http://www.nwtrangecomplexeis.com/Public%20DEIS%20files/Chapters%201-3/Resource\\_Section\\_8\\_Sea\\_Turtles.pdf](http://www.nwtrangecomplexeis.com/Public%20DEIS%20files/Chapters%201-3/Resource_Section_8_Sea_Turtles.pdf)
- 11, [http://www.nwtrangecomplexeis.com/Public%20DEIS%20files/Chapters%201-3/Resource\\_Section\\_10\\_Birds.pdf](http://www.nwtrangecomplexeis.com/Public%20DEIS%20files/Chapters%201-3/Resource_Section_10_Birds.pdf)
- 12, [http://www.nwtrangecomplexeis.com/Public%20DEIS%20files/Chapters%201-3/Resource\\_Section\\_3\\_Hazardous\\_Materials.pdf](http://www.nwtrangecomplexeis.com/Public%20DEIS%20files/Chapters%201-3/Resource_Section_3_Hazardous_Materials.pdf)

The following Notice is in the United States Federal Register / Vol. 74, No. 46 / Wednesday, March 11, 2009 / Notices 10557:

**DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration RIN 0648-XN87 Taking and Importing Marine Mammals; Navy Training and Research, Development, Testing, and Evaluation Activities Conducted within the Northwest Training Range Complex**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice; receipt of application for letter of authorization; request for comments and information.

**SUMMARY:** NMFS has received a request from the U.S. Navy for authorization to take marine mammals incidental to military readiness training activities and research, development, testing and evaluation (RDT&E) to be conducted in the Northwest Training Range Complex (NWTRC) for the period beginning September 2009 and ending September 2014.

Pursuant to the implementing regulations of the Marine Mammal Protection Act (MMPA), NMFS is announcing our receipt of the Navy's request for the development and implementation of regulations governing the incidental taking of marine mammals and inviting information, suggestions, and comments on the Navy's application and request.

**DATES:** Comments and information to NMFS must be received no later than April 10, 2009.

**ADDRESSES:** Comments on the application should be addressed to:

Michael Payne, Chief, Permits, Conservation and Education Division, Office of Protected Resources, National Marine Fisheries Service  
 1315 East-West Highway, Silver Spring, MD 20910-3225.

**10558 Federal Register / Vol. 74, No. 46 / Wednesday, March 11, 2009 / Notices** addresses other than the one provided here. Comments sent via e-mail, including all attachments, must not exceed a 10-megabyte file size.

**FOR FURTHER INFORMATION CONTACT:**

Jolie Harrison, Office of Protected Resources,

NMFS, (301) 713-2289, ext. 166. **SUPPLEMENTARY INFORMATION**

#### Availability

A copy of the Navy's application may be obtained by writing to the address specified above (See **ADDRESSES**), telephoning the contact listed above (see **FOR FURTHER INFORMATION CONTACT**), or visiting the internet at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>.

The Navy's Draft Environmental Impact Statement (DEIS) for NWTRC was made available to the public on December 26, 2008, and may be viewed at <http://www.nwtrangecomplexeis.com/>

With respect to military readiness activities, the MMPA defines "harassment" as:

(i) any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild [Level A Harassment]; or (ii) any act that disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered [Level B Harassment].

#### Summary of Request

**In September, 2008, NMFS received an application from the Navy requesting authorization to take individuals of 32 species of marine mammals (4 pinniped and 28 cetacean) incidental to upcoming training and RDT&E activities to be conducted in the NWTRC (off the coasts of Washington, Oregon, and northern California) over the course of 5 years.**

These training and RDT&E activities are classified as military readiness activities. The Navy states that these training activities may expose some of the marine mammals present in the area to sound from various mid-frequency and high-frequency active tactical sonar sources or to pressure from underwater detonations. The Navy requests authorization to take individuals of 32 species of marine mammals by Level B Harassment.

#### Specified Activities

**In the application submitted to NMFS, the Navy requests authorization to take marine mammals incidental to conducting training events and RDT&E utilizing mid- and high frequency active sonar sources and explosive detonations. These sonar and explosive sources will be utilized during Antisubmarine Warfare (ASW) Tracking Exercises, Mine Avoidance Training, Extended Echo Ranging and Improved Extended Echo Ranging (EER/IEER) events, Missile Exercises, Gunnery Exercises, Bombing Exercises, Sinking Exercises, and Mine Warfare Training.**

Table 1-1 in the application lists the activity types, the equipment and platforms involved, and the duration and potential locations of the activities.

**Information Solicited** Interested persons may submit information, suggestions, and comments concerning the Navy's request (see **ADDRESSES**). All information, suggestions, and comments related to the Navy's NWTRC request and NMFS' potential development and implementation of regulations governing the incidental taking of marine mammals by the Navy's NWTRC activities will be considered by NMFS in developing, if appropriate, the most effective regulations governing the issuance of letters of authorization.

**Dated:** March 6, 2009. **P. Michael Payne, Chief, Division of Permits, Conservation, and Education, Office of Protected Resources, National Marine Fisheries Service.**

United States Senate  
WASHINGTON, DC 20510

April 9, 2009

The Honorable B.J. Penn  
Secretary of the Navy  
1000 Navy Pentagon  
Washington, D.C. 20350-1000

Kimberly Kler, Environmental Planner  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101

Dear Secretary Penn and Ms. Kler:

We are writing today to provide our comments on the proposed expansion of the Northwest Training Range Complex ("NWTRC"). First and most importantly, we would like to express our strong support for the Navy's ongoing efforts to strengthen and sustain military readiness. Your efforts to provide personnel with access to realistic training environments are critical to helping maintain our national security. Additionally, we sincerely appreciate the additional time the Navy provided to allow Oregonians to comment on this important and sensitive issue. As the Navy moves forward in the NWTRC decision-making process, however, we cannot overstate the importance of proceeding in a manner that fully considers the environmental and economic needs of our constituents and coastal communities in addition to the military needs of our country.

Based on a number of comments we have received from a variety of interested stakeholders and constituents, we are concerned that many of the Navy's training proposals, including underwater minefield testing, explosive ordinance use, expanded land and air-based exercises, and widespread sonar training in particular, pose substantial environmental and economic risks. For example, you are no doubt aware that there are significant and seemingly unresolved concerns about the Navy's proposed action and the Draft Environmental Impact Statement. These include concerns that the Navy failed to adequately meet the National Environmental Policy Act requirements that compel the Navy to identify and fully explain the potential impacts - including cumulative impacts, provide an analysis of reasonable alternatives, and specify measures to mitigate potential harms. We would like to take this opportunity to highlight a few of the other outstanding key concerns in an effort to make sure they are given appropriate consideration.

1. Training activities have the potential to cause irreparable harm to the fisheries and the many industries dependent upon them along the Oregon Coast. The 2006 value of Oregon's commercial fishery was placed at \$421 million and an additional \$31.9 million was generated by the recreational fishery in 2005. The training activities have the potential to damage essential fish and hard-bottom habitats, as well as alter patterns of fisheries, potentially severely damaging economic and social outcomes for coastal and coastal-

neighboring Oregon communities. Significantly, there is a great deal of expertise to be found both within the fishing and the academic community on the Oregon Coast. We urge the Navy to work with our Coastal communities in assessing impacts and finding adequate ways to mitigate impacts, including working with communities on the scheduling and locating of activities.

2. The use of sonar has been associated with significant impacts on marine mammals. Off the Oregon Coast, the potentially detrimental effects are even more worrisome given the number of threatened and endangered species at risk. Several of the comments identified concerns with the comprehensiveness and inclusiveness of the scientific data and methodologies employed by the Navy to assess the potential consequences on marine mammals. We urge you to look closely at the comments provided on this matter and work to address these concerns.

3. Potential impacts on endangered leatherback sea turtles, sea birds, and other species have also been identified by both constituents and the Navy in the Draft Environmental Impact Statement. We urge the Navy to fully consider and minimize any impacts and to develop a plan for impact mitigation/minimization.

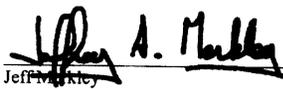
4. Training activities have the potential to release a variety of hazardous materials into sensitive marine ecosystems. We urge the Navy to determine how best to minimize these impacts, to develop a mitigation plan for doing so, and to review that plan with other relevant authorities.

In order to avoid needlessly risking such adverse consequences, we urge the Navy to reconsider the variety of scientific studies and methodologies used to support its environmental review process, to more fully explain potential environmental and cumulative impacts, to analyze all reasonable alternatives, and to identify measures that may actually mitigate harm.

We thank you in advance for your consideration of these comments. We hope to be able to work with the Navy to ensure that the substantive environmental, economic and social concerns of our constituents are considered as you move forward in designing this project. If you have any questions or comments you may contact Michele Miranda in Senator Wyden's DC office at 202-224-3163 or Jeremiah Baumann in Senator Merkley's DC office at 202-224-3753.

Sincerely,

  
Ron Wyden  
United States Senate

  
Jeff Merkley  
United States Senate

#6

**Congress of the United States**  
**Washington, DC 20515**

February 6, 2009

The Honorable Donald C. Winter  
 Secretary of the Navy  
 1000 Navy Pentagon  
 Washington, DC 20350-1000

Dear Secretary Winter:

We are writing to request an extension to the February 18, 2009 public comment deadline set for the draft Environmental Impact Statement/ Overseas Environmental impact statement (EIS/OEIS) for the U.S. Navy's expanded use of the Northwest Training Range Complex off the Oregon coast.

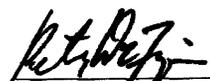
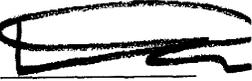
The EIS/OEIS was released on December 29, 2008 with an electronic copy available on the Northwest Training Range Complex website. However, many citizens who live in potentially affected areas along the Oregon coast have expressed concern and frustration at the lack of public notice and the limited time to provide official comments to the U.S. Navy. The EIS/OEIS is 1,068 pages of dense technical language and yet most Oregon coast residents were not aware of the proposal's existence until a January 30, 2009 public meeting in Newport, Oregon. In addition, coastal residents have raised questions and serious concerns about the impact of the Navy's plans on coastal fisheries, tourism, ongoing efforts to develop alternative energy sources, and marine mammal research.

We believe that successful and innovative projects in Oregon require an open, fair communication process between private businesses, government, and citizens. In light of the complex issues at stake and unanswered questions regarding the potential impact of the Navy's plans, we ask that you both extend the public comment period to April 11, 2009 and hold at least two additional public meetings in Oregon, including one in Tillamook County, to ensure that those who may be affected and wish to comment on the project may do so.

We appreciate your immediate attention on this matter. If you have any additional questions, please contact Alison Craig in Congressman Schrader's Oregon office at (503) 588-9100.

Sincerely,

    
 RON WYDEN      PETER DEFAZIO      KURT SCHRADER  
 United States Senator      United States Senator      Member of Congress

    
 EARL BLUMENAUER      PETER DEFAZIO      DAVID WU  
 Member of Congress      Member of Congress      Member of Congress

# #

**United States Navy**  
**Public Hearing Comment Form**  
 Northwest Training Range Complex  
 Environmental Impact Statement /  
 Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Depositing this form at the Comment Table before you leave tonight.
- 2) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 3) Mailing this form to:

Naval Facilities Engineering Command Northwest  
 1101 Tautog Circle, Suite 203  
 Silverdale, WA 98315-1101  
 ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address *halmw*

All comments must be received no later than <sup>March</sup> ~~February~~ 11, 2009, to be considered in the Final EIS/OEIS.

Name: Judith & Robert Peterson  
 Organization/Affiliation: Concerned individuals  
 Address: 13610 S Coast Hwy.  
 City, State, Zip Code: South Beach, OR 97366

Comments: We live close to the Newport Airport (about 1 1/2 - 2 miles south) and are concerned about the increase in aircraft close to our fairly new home. While we see a general need for the program - we are concerned with noise, visual impact, and damage to our lovely area. We've already had one jet fighter scream over our house (we are ocean front). The noise was deafening and our entire well-built two story house shook! The experience was incredible and I watched as the plane continued south - over the neighbors houses. This was in late January - many more are flying just off shore.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

Also - our area has huge appeal for "whale watching". It really contributes to our local economy - so, we're very concerned about the effects of the training on the migrating whales.

**United States Navy  
Public Hearing Comment Form**  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



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All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: Michael D. Pettis  
Organization/Affiliation: Oregon Longliners  
Address\*: 310 SE Yaquina View Drive  
City, State, Zip Code: Newport, OR 97365  
Comments: I have fished the waters off central Oregon for 30+ years. In that time I have seen hundreds of marine mammals including Orca whales, Blue whales, Grey whales, Humpback whales, Stellar Sealions, California Sealions, Elephant Seals, Dahl's Porpoise, Bottle nose porpoise, pilot whales and numerous others I could not identify. Surely this area of abundant life is not the best area to be setting off bombs and running high intensity sonar. In addition to this fact I am concerned about losing fishing opportunity to either restricted access or reduced populations due to Navy activity in traditional fishing grounds that are very important to our economic survival.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

Please consider other options for areas of operation.  
Thank you Michael D. Pettis

**United States Navy  
Public Hearing Comment Form**  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



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Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than March 11, 2009, to be considered in the Final EIS/OEIS.

Name: Jeff Pio  
Organization/Affiliation: Peace on earth  
Address\*: 2601 Rd B  
City, State, Zip Code: RV Ca 95370 Planet Earth.  
Comments: Do not do what you are planning to do. Be the change.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

**United States Navy  
Public Hearing Comment Form  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement**



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- 2) Mailing this form to:

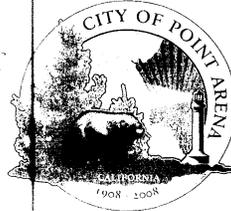
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than March 11, 2009, to be considered in the Final EIS/OEIS.

Name: Sonya Pio  
 Organization/Affiliation: Good Planets are hard to find clubs!  
 Address: 2601 Road B  
 City, State, Zip Code: Redwood Valley, CA 95470  
 Comments: Please keep our ocean waters safe for all sea life. Whales are not the only ones that will be affected!  
No More War!

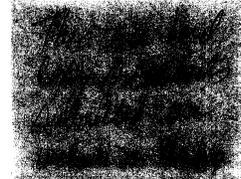
Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.



Lauren Sinnott - Mayor / Roads Commissioner    Laura Smith - Vice Mayor / Pier Commissioner  
 David Ingham - Safety Commissioner / Councilmember  
 Joseph Riboli - Public Works Commissioner / Councilmember  
 Brian Riehl - Utilities Commissioner / Councilmember  
 451 School Street - PO Box 67 - Point Arena, CA 95468  
 (707) 882-2122 Voice - (707) 882-2124 FAX

April 7, 2009

Naval Facilities Engineering Command Northwest  
 ATTN: Mrs. Kimberly Kler - NWTRC EIS  
 1101 Tautog Circle, Suite 203  
 Silverdale, WA 98315-1101



RE: Letter of Opposition to the Navy's Northwest Training Range Complex

Dear Mrs. Kler:

We are writing to express our opposition to the Navy's Northwest Training Range Complex as described in the Environmental Impact Statement (EIS) and Overseas Environmental Impact Statement (OEIS) for the U.S. Navy Weapons Testing Program. We are concerned that the relevant documents do not adequately describe existing environmental conditions, baseline training operations or future training operations. Further, we do not believe that the environmental and cumulative impacts are properly analyzed and therefore it is not surprising that the proposed mitigation measures are inadequate to protect marine mammals and other marine species. We are particularly concerned about the unnecessary and preventable impacts to fisheries and marine mammals.

We believe the EIS is environmentally deficient for the following reasons:

- 1) Incomplete data. The EIS contains only a small amount of data regarding existing environmental conditions, baseline data for populations of marine mammals and fish species, baseline data for existing training activities and impacts to marine species, as well as projected impacts of future training activities.
- 2) Environmental impacts. The Navy does not properly analyze environmental impacts that its sonar training will likely have on the endangered species and species in general. For instance, it completely disregards the serious impacts its sonar training will have on the highly endangered Southern Resident killer whale, whose critical habitat in and around Puget Sound would be subsumed by naval training. Likewise, it doesn't consider impacts on the Olympic Coast National Marine Sanctuary, almost all of which will be engulfed by naval training. At a minimum, these areas should be protected from sonar training. We are concerned that the Navy has adopted methodologies that are not accepted in the scientific community while at the same time ignoring relevant information that favors a more protective approach. Therefore, the thresholds established by the Navy for assessing impacts to marine mammals are likely set too high and as a consequence, the 129,112 annual estimated "takes" of marine mammals is likely to be

significantly understated. We also question whether all mammals that are exposed to sonar above ambient noise levels are included in those counted as "takes," as the Navy stated at the meeting. It is our understanding that the threshold level for temporary and permanent injury, as well as behavioral effects, are set significantly higher than ambient levels.

3) Fisheries impacts. Fisheries resources in California have declined precipitously in recent years due to a variety of causes. The presence of a viable fishing industry helps define the rural character of Mendocino County and contributes directly and indirectly to our local economy, including providing a significant cultural and epicurean backdrop for the local tourist industry. Anything that negatively impacts the fishing industry also negatively impacts our local tourist industry, economy and character. We are concerned that there seems to have been no meaningful effort to identify essential fisheries habitat for commercial fish species or to quantify in any meaningful way the potential impacts. The EIS acknowledges that there will be mortality and injury associated with training activities but without providing any meaningful analysis peremptorily concludes that there will be no significant impacts. We are afraid the the Navy underestimates the number of marine mammals (and fish) that will be harassed, injured and killed because its acoustics impact analysis ignores scientific studies contrary to its interests and uses methodologies not supported by the scientific community. Thus, the thresholds it sets for permanent injury, temporary injury (hearing loss) and behavioral change (which we would argue are too high and thus completely underestimate the actual number of wildlife that will be impacted) are invalid as a matter of science.

4) Cumulative Impacts. The EIS lists projects that could have a potential cumulative impact, but does not provide the appropriate analysis. We are also concerned that statements were made at the meeting that indicated a lack of knowledge of or effort to discover, quantify or assess the degree to which other branches of the armed forces might be operating in the same areas and therefore creating further need for cumulative impacts analysis. Chapter 4 of the DEIS simply lists projects that could have potential cumulative impacts on the Northwest Range without actually analyzing what those impacts will be.

5) Alternative analysis. The alternative analysis only considers three options: maintain the status quo, conduct training, or conduct more training. A meaningful alternatives analysis would have included a broader range of options.

6) Mitigation Measures. The Navy fails to propose measures that would effectively limit the harmful impacts of sonar and other training activities on marine wildlife. The Navy has adopted more practical safeguards to limit the impacts of sonar for other training exercises and should do so here. Training exercises should be excluded from all coastal waters between the shoreline and the 100 meter depth contour. Consideration should also be given to avoiding lower continental shelf waters behind the 500 and 2,000 meter depth contours. Further, the Navy should rely on the technique called "simulated geography" in order to avoid undersea canyons; should identify and avoid essential fisheries habitat; should restrict sonar use at night when marine mammals are harder to detect; and should minimize the use of sonar from multiple sources at the same time. In addition to avoiding areas of high marine mammal populations, the Navy should also schedule training exercises to avoid conflicts with the gray whale migration season and routes.

7) Target vessels. Concern has been expressed that the target vessels proposed to be sunk at sea may contain unacceptable levels of toxic contamination. The EIS should discuss the steps that will be taken to alleviate this concern.

8) California Coastal Commission (CCC) Consistency Determination. We urge the Navy to seek a consistency determination from the CCC without further delay, and urge the Navy to voluntarily adopt comparable mitigations to those required by the CCC for the Southern California Training Range.

We wish to reiterate our concern regarding potential significant impacts to our already dwindling fisheries resources. Our fisheries are already subject to species specific harvest reductions and prohibitions as well as reduced or closed seasons. We can ill afford any further impacts to this irreplaceable resource. We note with some frustration that it is difficult to get a definitive answer regarding the level of training that may take place off the Northern California Coast, but we are assured that the level of activity is likely to be modest. However, there appears to be nothing to guarantee that should the training range be approved. Accordingly, we urge you to avoid any training activities in or near our waters that are likely to have a negative impact on fish or fisheries habitat.

We are fully supportive of the need for the Navy to properly train to maintain a high state of proficiency and readiness to safeguard our nation and our naval personnel. However, we are confident that the training mission of the Navy can be accomplished in a way that is compliant with environmental principles and relevant environmental laws. We urge the Navy to adopt mitigations that will be protective of the marine environment and that will limit the potential adverse environmental impacts to marine mammals and fish species from the Navy's proposed status quo and the alternatives for the NWTRC.

Further, we request Congressional hearings be held to review the issues we have raised and to assure that optimum training levels are maintained while environmental values are protected.

Thank you for your consideration of these comments.  
Sincerely,

*Lauren Sinnott*, Mayor  
*Laura Smith*, Vice Mayor  
*Brian Riehl*, Councilmember  
*David Ingham*, Councilmember  
*Joseph Riboli*, Councilmember

City of Point Arena, Mendocino County, California

**From:** [Runner, Christopher J CIV NAVFAC](#)  
**To:** [Burt, Amy E CIV NAVFAC NW, EV1;](#)  
[Kler, Kimberly H CIV NAVFAC NW, EV1;](#)  
**Subject:** FW: Env Assessment Document - EA-6B to EA-18G at NASWI  
**Date:** Tuesday, March 10, 2009 13:57:12

---

Kimberly and Amy,

Can you assist Keith with the question below?

-----Original Message-----

From: Melaas, Richard L CIV NAS WHIDBEY ISLAND WA  
Sent: Tuesday, March 10, 2009 1:39  
To: Kuenzi, Keith L CIV NAVFAC NW, PRW41; Meyer, Jennifer S CIV CNRNW;  
Runner, Christopher J CIV NAVFAC  
Subject: RE: Env Assessment Document - EA-6B to EA-18G at NASWI

We'll stay intermediary at this point.

-----Original Message-----

From: Kuenzi, Keith L CIV NAVFAC NW, PRW41  
Sent: Tuesday, March 10, 2009 8:30  
To: Melaas, Richard L CIV NAS WHIDBEY ISLAND WA; Meyer, Jennifer S CIV  
CNRNW; Runner, Christopher J CIV NAVFAC  
Subject: FW: Env Assessment Document - EA-6B to EA-18G at NASWI

Team,

We have a hardcopy on shelf outside my office. Document POC was a LT Hermanson, FFC, Code N733D, Norfolk, 757-838-6636. While suspect he has transferred, their office may have an eCopy. Ms. Ponder has not attempted to contact me directly. Would you office prefer to stay as intermediary?

Chris, does NW have an eCopy?

R/,

-----Original Message-----

From: Melaas, Richard L CIV NAS WHIDBEY ISLAND WA  
Sent: Friday, March 06, 2009 15:39  
To: 'angie ponder'  
Cc: Kuenzi, Keith L CIV NAVFAC NW, PRW41; Meyer, Jennifer S CIV CNRNW  
Subject: RE: 2,800 MORE sorties somewhere?

The numbers of flight operations to be conducted at NAS Whidbey Island in

the future is not in the Range Complex EIS because NAS Whidbey Island is not a part of the Range Complex.

You should be able to find the predictions on numbers of EA-18G flight operations to be conducted at NAS Whidbey Island in the 2005 Environmental Assessment for the Beddown of the EA-18G at NAS Whidbey Island. Not sure where to get a copy any more so I've copied this to the NAS Whidbey Island environmental department (Mr. Kuenzi, acting director) presuming you would like a copy electronically if it's still available.

The projected number of P-8A flight operations at the air station is in the Environmental Impact Statement for the Beddown of the P-8A I believe, but Jennifer Meyer knows more about that than I do. The MMA EIS is still on-line at <http://www.mmaeis.com/>. The MMA EIS also discusses in general the EA-18G flight operation impacts at NAS Whidbey Island (not in the Range Complex) in the "cumulative effects" section.

It is interesting to note the Table you reference below in the Range Complex EIS references a "100% increase in the number of SORTIES [your emphasis]" in the Northwest Training Range Complex, elsewhere in the Range Complex EIS there are discussions of "training activities" increasing in the Range Complex but no discussion on any relationship between "training activities" and "sorties" and in documents NOT related to the Range Complex, but to the only air station in the area, the EA-18G Environmental Assessment indicates a slight decrease in air operations at the air station and P-8A documents indicate they should be about the same as for the P-3.

Would seem to lead to an interesting question/comment that I recommend you submit to the Range Complex EIS comment site/people listed on the web page for the Range Complex EIS.

Sincerely,  
Rich Melaas

-----Original Message-----

From: angie ponder [<mailto:ponderthis@rockisland.com>]  
Sent: Friday, March 06, 2009 13:56  
To: Melaas, Richard L CIV NAS WHIDBEY ISLAND WA  
Subject: 2,800 MORE sorties somewhere?

Rich

I know that a sortie is different than an exercise. I got my information from Table 2-8:Impact of Range Enhancements on Annual Level of Activities,

Chapter 2 page 2-32.

where it says that there will be a 100% increase in the number of SORTIES for the EA-18G, P-3, and EP-3. Where do I find the information in the EIS that is specific to Whidbey Island not increasing its sorties? I have looked but can't find it.  
?

Thanks,  
Angie

p.s.

(I think I may have had the new Growler fly over my house on Feb. 12. Whatever it was, it was the loudest, most house-rattling fly- over yet.)

On Mar 6, 2009, at 12:09 PM, Melaas, Richard L CIV NAS WHIDBEY ISLAND WA wrote:

> Ms. Ponder, got your phone number and e-mail from Jennifer Meyer at  
> NAS Whidbey Island as I can help straighten this out. The first  
> paragraph about "exercises" and "sorties" will "double" at NAS Whidbey  
> Island is absolutely wrong.  
>  
> The Northwest Training Range Complex EIS proposed action is to  
> increase "training activities." One "activity" does not equal one  
> "exercise" or one "sortie." The smaller aircraft (EA-6B and EA-18G)  
> can fly for about 1.5 to  
> 2 hours unrefueled and about double that with air refueling and can  
> conduct several "training activities" during one "sortie" (2 or 3  
> "activities" per "sortie"). The larger aircraft (P-3 and P-8) that  
> fly "sorties" of 10 to 12 hours conduct many "training activities" per  
> "sortie" (anywhere from  
> 5 or 6  
> to a dozen "training activities" per sortie).  
>  
> In some cases several hundred "training activities" may be conducted  
> by several tens of "sorties" by aircraft, ships, and submarines out in  
> the Warning Areas 12 to 250 miles offshore over anything from one to  
> several days and that would be called an "exercise." Currently we  
> conduct about 2 large exercises per year in the Range Complex and we  
> propose to conduct as many as 3 or 4 per year in the future. Yet,  
> conducting one to two more "exercises" and increasing the number of  
> "training activities"  
> conducted

> during those exercises does not in and of itself require more aircraft  
> "sorties" than are being conducted now.  
>  
> So, while "training activities" are expected to increase in the Range  
> Complex (not at NAS Whidbey Island), as may the number of "exercises"  
> conducted off the coast or inland over Eastern Washington, the actual  
> number of "sorties" (or "air operations") that will be conducted at NAS  
> Whidbey Island once the new EA-18G and P-8A aircraft are fully on  
> board is expected to DECREASE about 10 to 15% as explained in the  
> Environmental Assessment for the Beddown of the EA-18G and the  
> Environmental Impact Statement for the Beddown of the P-8A.  
>  
> As a for-instance - currently an EA-6B will take-off at NAS Whidbey  
> Island and head east over the Cascades to part of the Range Complex  
> called the Okanogan and Roosevelt Military Operating Areas (MOAs). In  
> those areas they would conduct one Air Combat Maneuvers (ACM)  
> activity, and one Electronic Combat (EC) tactics training activity and  
> return back to NAS Whidbey Island  
> for a total of 2 training activities in one flight, or "sortie."  
> With the  
> new EA-18G a similar scenario would be to take-off at NAS Whidbey  
> Island, fly east over the Cascades to the MOAs and conduct an ACM  
> activity, EC tactics activity, Air Refueling (AR) activity and an  
> Air-to-Air Intercept  
> (AAI) activity then return to NAS Whidbey Island - "double" the number  
> of "activities" but no increase in "sorties."  
>  
> Because the new aircraft and new submarines in the Pacific Northwest  
> have updated and new capabilities, those new capabilities bring with  
> them new training activity requirements, but not necessarily  
> additional sortie requirements.  
>  
> I hope this help you understand the difference between a sortie (or  
> "air  
> operation) at an air station versus a training activity and/or  
> exercise in a range complex. The two are not the same.  
>  
> Sincerely,  
> Rich Melaas  
> Navy Region Northwest Range Complex Sustainment Coordinator  
>  
>  
> -----Original Message-----  
> From: Meyer, Jennifer S CIV CNRNW

> Sent: Monday, March 02, 2009 15:20  
> To: Melaas, Richard L CIV NAS WHIDBEY ISLAND WA  
> Subject: FW: Jet noise article  
>  
> Her phone number is:360 468 4041  
>  
>  
>  
> -----Original Message-----  
> From: angie ponder [<mailto:ponderthis@rockisland.com>]  
> Sent: Tuesday, February 24, 2009 16:56  
> To: Meyer, Jennifer S CIV CNRNW  
> Subject: Re: Jet noise article  
>  
> Jennifer  
>  
> See EIS 2.6.3 (Chapter 2, page 31) for the Range Activity Summary  
> Table  
>  
> That's in the "documents" section of the range complex website.  
> It is the source for the figures stated in that article, I think.  
>  
>  
>  
> Angie  
>  
> On Feb 24, 2009, at 4:31 PM, Meyer, Jennifer S CIV CNRNW wrote:  
>  
>> Thank you. I agree this is confusing. I found both of these  
>> statements on the link you sent me and they seem to be saying totally  
>> opposite things. I will check with Rich on Monday and let you know.  
>>  
>>  
>> "This will mean that Whidbey's aircraft will fly more frequently. The  
>> EA-6B Prowlers (and their replacement EA-18 G Growlers) and P-3  
>> Orions (and their replacement P-8A Poseidons) exercises would double  
>> at NAS Whidbey from almost 2,300 sorties per year to more than  
>> 4,500."  
>>  
>>  
>> "NAS Whidbey Island is where some of the newer hardware will be based  
>> in the enhanced plan for the range airspace. The actual training,  
>> however, will take place miles away, much of it in the airspace and  
>> waters off the west coast of Washington and Oregon, as well as over

>> the Okanogan. "  
>>  
>>  
>> Jennifer  
>>  
>> -----Original Message-----  
>> From: angie ponder [<mailto:ponderthis@rockisland.com>]  
>> Sent: Tuesday, February 24, 2009 16:20  
>> To: Meyer, Jennifer S CIV CNRNW  
>> Subject: Re: Jet noise article  
>>  
>>  
>> Jennifer  
>>  
>> Thanks for the email. I thought you might be interested in this  
>> article:  
>>  
>>  
>

SONYA POPOW

**30651 Sherwood Road Fort Bragg, CA 95437 (707) 964-5128**  
sonyapopow@yahoo.com

To the Naval Facilities Engineering Command NW  
1101 Tautog Circle, suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler – NWTRC EIS

March 11, 2009

Dear Mrs. Kler:

I live in Fort Bragg on the California north coast. I oppose the navy extending its training area along our coast. I urge you to prevent all government or private business interests from taking claim to any aspect of the ocean environment along the Northwest Pacific Coast.

The Fort Bragg/Mendocino area is a favorite tourist destination. People who visit our area come for the beautiful ocean views, the walks along the seaside bluffs, the fresh air and the quiet. We fear that the sight of naval vessels on the ocean, the sight and sound of overhead aircraft would destroy the appeal our economy depends on.

The nearly pristine ocean waters off the Northwest Coast of California, Oregon and Washington Northwest Pacific waters are perhaps one of the more environmentally intact ocean ecosystems that we have left in the world. No one should be granted the right to pollute ocean waters and inevitably harm creatures that dwell in coastal and pelagic waters. Organizations sometimes think they have a mandate, their over-riding rationale convince them that their actions are valid. Please don't let the health of the ocean be a tradeoff for the creation of new jobs or the testing of new weapons.

I am sure that you are aware that the giant kelp forests of the Northwest Pacific are home to myriad wonderful sea creatures. The grey whale makes its yearly travels between feeding and breeding grounds through the coastal waters of the Northwest Pacific. Besides pollution by chemical contaminants in the water and in whales' food sources from increased naval presence, the impacts of sonar testing are known to harm whale species. If for no other reason, don't add further negative pressure to the world's threatened fish populations by allowing the U.S. Navy to carry out this dreadful plan.

We understand that the Navy proposes to comply with all the federal rules and regulations. But can they guarantee that they will have no impact whatsoever on marine life, noise levels, and visual effects?

Those of us who live here love the ocean and the ocean life; we love the unspoiled landscapes, the quiet, and the exquisite views. We love to see the whales and the shore birds, to examine the tide pools, and to watch the sunset from the ocean bluffs.

We worry that the training will negatively affect our own lives as well as the economy, the local marine life, and the calm and peacefulness of our coastline.

Please do not conduct Naval training off of our coast.

Signed:

Sonya Popow

cc: Congressman Mike Thompson, Fort Bragg City Council, Mendocino County Bd. of Supervisors

**United States Navy**  
**Public Hearing Comment Form**  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler – NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: Gina Dearth, general manager \_\_\_\_\_

Organization/Affiliation: Port of Bandon \_\_\_\_\_

Address:\* P.O. Box 206 \_\_\_\_\_

City, State, Zip Code: Bandon, Oregon 97411 \_\_\_\_\_

Comments: This port is appreciative of the Navy's interest in pursuing additional experimental training off Oregon's waters. However, in the last two years there has been a serious play on competing uses for these resources, whether it be wave buoy park sites, marine reserves, or the commercial fishing industry. Having no idea really of the Navy's true intent in performing sonar and detonating tests we are left to trust that all the proper research and vetting has been done. Many coastal agencies feel this has not happened. Notification should have appeared long before this short date in front of us to make comment

In November, 2008 the Port of Bandon hosted a Naval team known as the Fleet Survey Team, Bottom Mappers who spent 5 weeks here reading, installing and tracking digital tide gauges and grid work on the ocean floor outside our bar. The Coast Guard stationed in Coos Bay called me and asked what was going on as they had no clue this activity was taking place under their watch. That event is really troublesome for us, in that no one, particularly the Coast Guard or the State of Oregon, had received information prior to the Navy setting up here. As a result, we approach this project guarded and with reservation and expect the Navy to be transparent in regards to this plan and the outcome. The oceans resources are an integral part to our coastal economies, which are already under fire from competing users, climate change and depleting fish stocks. \_\_\_\_\_

Thank you for this opportunity to comment on short notice.

Gina Dearth, general manager

PORT OF BANDON



February 9, 2009

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale WA 98315-1101

Re: Increased Naval Training Exercises Off Oregon

Dear Sirs:

Thank you for this opportunity to comment.

The Oregon International Port of Coos Bay (Port) is an Oregon Special District authorized under Oregon Revised Statute 777 and, as such, is classified as an Oregon municipality. The five-member Board of Commissioners is appointed by the Governor and confirmed by the Oregon Senate.

The Navy's public process for increasing the training area off Oregon has certainly been flying under the radar screen of coastal communities. The Port, like many other agencies and organizations, has only recently been made aware of the Navy's proposal.

While we are strong supports of the Navy's mission, we believe it is prudent to extend the public comment period for an addition 60 days to allow time to complete adequate due diligence on the Navy proposal.

Please consider this comment letter as the Port of Coos Bay's official request to (1) extend the public comment period 60 days and (2) for the Navy to conduct additional public outreach visits to the coastal ports and communities who may be impacted under the proposal.

Thank you for any consideration you may give this request.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Gaul".

Michael Gaul  
Deputy Executive Director

MG/aw

March 9, 2009

**Naval Facilities Engineering Command Northwest,  
ATTN: Mrs. Kimberly Kier - NWTRC EIS,  
1101 Tautog Circle, Suite 203,  
Silverdale, WA 98315-1101.**

**Dear Mrs. Kimberley Kier,**

**Oregon Coast Fisheries will suffer from the proposed plans to increase Navy Training operations off the Oregon coast.**

**The proposed increases will do damage to an all ready-stressed group of commercial and sports fishermen. The Port of Garibaldi serves these fisherman. I want to add my voice to community concerns expressed about the proposed increase in training activities.**

**Please carefully consider the impact of this training as it relates to current proposals.**

A handwritten signature in black ink, appearing to read "Mary Sause".

**Mary Sause.  
Commissioner  
Port of Garibaldi  
P O BOX 10  
Garibaldi, Or 97118**

125 West Central Avenue, Suite 300 / P.O. Box 1215 / Coos Bay, Oregon 97420-0311  
Phone: 541 267-7678 / Fax: 541 269-1475 / email: portcoos@portofcoosbay.com / Web: www.portofcoosbay.com

State of Oregon Tokyo, Japan - Oregon Japan Representative Office / Phone: 81-3-3580-8951 Fax: 81-3-3580-9071  
Representative Offices: Taipei, Taiwan, R.O.C. - Oregon Trade & Information Center / Phone: 886-2-2723-2320 Fax: 886-2-2723-2312



1115 E. BAY BOULEVARD NEWPORT, OREGON 97365 (541) 265-7758 FAX (541) 265-4235

February 6, 2009

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101

Re: Increased Naval Training Exercises off Oregon

Dear Sirs:

Thank you for the opportunity to participate in the public hearing that was held in Newport, Oregon January 30, 2009. The open house before the public hearing was very informative, and the personnel responding to questions on the posters that were available for public viewing were able to answer most questions asked of them.

The Port of Newport is located on the central Oregon coast. It is a deep draft port with a multitude of commercial fisheries and ocean research. The commercial fishing vessels and research vessels that homeport out of the Port of Newport travel the entire Oregon and Washington coast. The fisheries that our local economy depends on vary in size, in types of gear deployed, and seasonal dates applied to their fisheries. The most recent value placed on the Oregon Fisheries was in 2006; and overall, the industry contributed \$421 million in personal income to Oregon's economy. Listed below are the fisheries and their percentage of contribution.

- Dungeness Crab, 23.3%
- Pink Shrimp, 2.3 %
- Groundfish, 9.0 %
- Pacific Whiting, 8.9 %
- Sardines, 11.9 %
- Tuna, 3.4 %
- Halibut, 0.3 %
- Distant Water Fisheries, 38.5 %
- Salmon, 1.8 %
- Other open access fisheries, 0.6 %

All fisheries except for those in distant water take place off the Oregon coast and gear is deployed and retrieved year around, with depths ranging from 5 fathoms to 800 fathoms.

There is also an ocean recreational fisheries component that is a large economic driver for the Oregon coast. The marine recreational component contributed \$31.9 million in 2005. Current figures will vary slightly due to loss of salmon fishing days. Any disruption of these fisheries, either commercial or recreational, would have a direct economic and socioeconomic impact on the Port of Newport, neighboring communities, and other coastal ports of Oregon.

Serving the Maritime & The Recreational Communities  
Newport International Terminal (541) 265-9651 Newport Marina at South Beach (541) 867-3321

Page 2,  
February 6, 2009

It is the Port of Newport's opinion, after attending the public hearing in Newport and reviewing the Northwest Training Range Complex EIS/OEIS, that the Port of Newport, State of Oregon and the marine resource users were not adequately represented. We also feel that the notification for the scoping and public hearing requirements of the EIS was inadequate. There was a minimal effort made to reach out to the marine resource dependant communities of the Oregon coast. (The public hearing in Newport, January 30, was announced in the local newspaper under the heading **WINDS OF PRAISE BROADCASTING CHRISTIAN RADIO.**)

The Port of Newport, representing commercial and recreational fishing interests, feels that the three large areas off the Oregon coast (W-570 / W-93A / W-93B) could have substantial impacts on our local and State economy if training operations are significantly increased off the coast of Oregon. The Port of Newport is requesting two things from the United States Navy.

1. Extend the public comment deadline of February 11, 2009 by 30 days.
2. Conduct additional public outreach in a manner that gives adequate notice to the coastal communities that could be impacted. Our concerns could possibly be answered if given the chance to interact with the process.

The Port of Newport is hopeful that the United States Navy will respond to this request and act appropriately as outlined under the National Environmental Policy Act (NEPA) process.

The Port of Newport has great respect and appreciation to the men and women that serve in the United States Military. The Port of Newport also supports the needs of the United States Navy to achieve and sustain military readiness. With better communication in the form of well organized outreach programs to coastal communities, we believe we will have the ability to better understand the needs of the Navy and work together to solve coastal concerns.

Thank you for considering this request.

Ginny Goblirsch, President  
Port of Newport Board of Commissioners

- C: Port of Newport Board of Commissioners  
Oregon Congressional Delegation  
Oregon Coastal Caucus  
Oregon Coastal Ports  
Oregon Coastal Zone Management Association  
Hatfield Marine Science Center  
Lincoln County Board of Commissioners  
Newport City Council  
Midcoast Watershed Council



## Port Orford Ocean Resource Team

P.O. Box 679  
351 6<sup>th</sup> Street  
Port Orford, OR 97465  
P: 541.332.0627  
F: 541.332.1170  
[info@oceanresourcesteam.org](mailto:info@oceanresourcesteam.org)  
<http://oceanresourcesteam.org>

Naval Facilities Engineering Command Northwest  
ATTN: Mrs. Kimberly Kler – NWTRC EIS  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101

Dear Mrs. Kler,

The Port Orford Ocean Resource Team (POORT) offers the following in response to the public comment opportunity provided by the Navy about increasing the activity in the Northwest Training Range Complex.

The city of Port Orford, Oregon is a small fishing village of approximately 1200 people on the Southern Oregon Coast with a rich history. A Coast Guard station on the Port Orford Heads was operational from 1934 to 1970, There is also a nearby airport at Cape Blanco with an approximately one mile runway built during WWII which remains largely undeveloped. We presently do not have any Department of Defense facilities to help support our economy. The largest contributor to our economic base is commercial fishing, followed by tourism.

The Port of Port Orford estimates that over 10% of the population is involved in the fishing industry, with an economic contribution of \$5.3 million in 2004. The dock is situated on an open bay rather than river channel, necessitating the use of a hoist system to dry dock the vessels. Ours is the only port between Seattle and San Francisco with direct access to the ocean and used to accommodate large lumber ships. Currently, the area underneath the hoist is affected by shoaling in response to a jetty system that does not work. This limits the number of days our fishermen can get out to the fishing grounds. Severe weather conditions off of Cape Blanco further restrict fishing opportunity and impact boat revenue.

The economic reliance on commercial fishing instilled the community with a strong need to create a sustainable fishery that takes the entire ecosystem into account. For example, Port Orford has gone through tough economic times resulting directly from a decline in the local fisheries. In the late nineties, the first blow came in the form of a crash in the groundfish stocks which led the state to use federal dollars for a retraining program for fishermen. The second (and subsequent third) disaster came with the 2006 and 2008 salmon season closures. The fishermen in Port Orford have survived by diversifying their focus fisheries and becoming stewards of their traditional fishing grounds.

The mission of the Port Orford Ocean Resource Team (POORT), a 501(c)(3) non-profit, is to engage Port Orford fishers and other community members in developing and implementing a strategic plan and framework that ensures the long-term sustainability of the Port Orford reef ecosystem and social system dependent on it. In response to this mission, POORT and the Port Orford community developed the Port Orford Community Stewardship Area. The Stewardship Area is an area which protects marine resources while allowing sustainable use of the resources to continue. It extends from the important watersheds on land out past the 12nm line in the ocean. This Stewardship Area boasts diverse habitats that both sustain our recreational and commercial interests and are a part of the most beautiful stretch of the wild, rocky southern coast. We strive to contribute to the overall health of the Stewardship Area while maintaining a working port and cultural traditions.

Port Orford Ocean Resource Team



POORT has been endorsed by the City of Port Orford to advance the recognition of our Stewardship Area. From this partnership, the city has asked us to produce public comment on the Northwest Training Range Complex Environmental Impact Statement.

### Whereas:

- The health of the ocean is vital to the continued traditions in our city;
- A major part of the economic base of the community is reliant upon commercial fishing;
- We appreciate the Navy's environmental concerns and protective measures;
- We recognize the importance of National Defense; and
- We applaud efforts to keep the citizens of the United States safe;

### We are concerned about:

- Destruction of essential habitat for fish and mammal populations;
- Disruption to marine life, such as changed physiology or behavior, due to increased training activity in local waters;
- Closures of fishing grounds that would adversely impact the commercial fishing fleet;
- Effect of increased activity on the recreational opportunities, such as diving, charter fishing, and kayaking, in our area;
- Potential use of live ordnance, explosives, and active sonar that will impact critical habitat; and
- Intrusion of such activities into our fragile nearshore environment;

### We recommend:

- That our community is informed when exercises take place within or adjacent to our Stewardship Area by contact with POORT;
- That a monitoring program to determine the effects on marine life from the increase in sound due to increased training activity be implemented;
- That the Navy partner with community-based organizations like POORT to address environmental concerns;
- That more outreach to coastal communities be conducted and that POORT be contacted to coordinate local efforts in Port Orford; and
- That fair compensation be provided for communities that have no economic benefit due to the increase in training activity off of our coast to offset the potential decrease in fishing revenue;

### We ask:

- For a partnership between the Navy and POORT to open lines of communication to the Port Orford community and to coordinate a monitoring program;
- For economic benefit for our commercial fishing fleet by helping us solve the shoaling problem at our dock to mitigate potential and future loss of fishing grounds and allow for the possibility of Naval vessels to travel to our port;

This comment statement is endorsed by the following groups in Port Orford:

Mayor John Roorbach  
City of Port Orford

Leesa Cobb  
POORT

Port Orford Ocean Resource Team

**Port Orford Watershed Council  
P. O. Box 310, Port Orford, OR 97465**

**City of Port Townsend  
Office of the Mayor**

250 Madison, Suite 2  
Port Townsend, WA 98368  
360-379-5047 FAX 360-385-4290



February 11, 2009

Naval Facilities Engineering Command NW  
Attn: Kimberley KLER-NWTRC EIS  
1101 Tautog Circle, Suite 203  
Silverdale, WA 96315-1101

**Re: Proposed Navy Training Area off Oregon Coast**

**Gentlemen:**

Word has only reached us in the past few days of a proposal by which the U.S. Navy would assume control from the Oregon Air National Guard of the waters off the entire Oregon coast for training and other uses. There was only one public hearing (on Friday 1/30/09, we are told) in Depoe Bay, with advance notification printed only in one small Lincoln City newspaper; we are told that because of this, only about 40 people showed up, and since no one had yet seen the 1,000 page Environmental Impact Statement, it was difficult to comment intelligently about it.

Now, we are told that the period for public comment has been "extended" to February 18, 2009. Clearly, the public has not had adequate time to review and understand what is being proposed. We are told that among the uses contained in the "preferred alternative" presented are mine fields, artillery shelling practice, submarine exercises including munitions, EA-18G and P-8 aircraft, air and sea surface targets, a portable undersea tracking range for anti-submarine training, and use of mid-level and high frequency active sonar, known to cause deaths of marine mammals, especially whales.

Obviously, this is a very big deal, and the seeming rush to a decision without even a nod to adequately informing the public is almost guaranteed to result in fervent opposition. What could you have been thinking?

The Port Orford Watershed Council wishes to go on record in demand of full, complete and transparent information of the general public, with numerous and well-publicized hearings held at numerous locations along the coast and inland to be convenient to the many people who will potentially be affected. We are not yet ready to oppose the plan (indeed, it seems the Navy has gone out of its way to deprive us of the information and time we need to even evaluate it), and we are not approaching this from a "not in my backyard" perspective. We simply must have a full and complete public discussion of these plans before any decision is made.

Sincerely,

Steven R. Taylor, Chair  
(541) 332-0166

March 18, 2009

Naval Facilities Engineering Command Northwest  
Attn: Mrs. Kimberly Kler - NWTRC EIS/OEIS  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
RE: NEPA Process Draft EIS/OEIS - US Navy Northwest Training Range Complex

Dear Mrs. Kler:

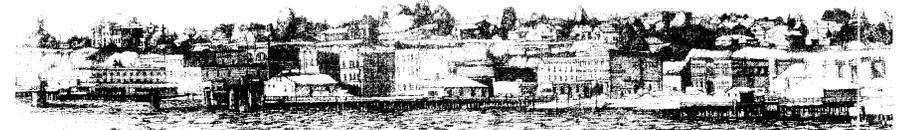
On behalf of the residents of our region, I am requesting the Navy to hold an additional public meeting during the comment extension period for this Draft EIS/OEIS.

This request is made due to adverse weather circumstances that prevented attendance by individuals from our region to attend the public meeting on Whidbey Island, Oak Harbor on January 27. The weather precluded the ferry service from running that evening and many who wanted to attend had no other means to make the crossing.

We know that they have had other ways to comment, however it is important that a public "face" be available to allow people an opportunity to be heard on a more personal and connected level.

To help in this effort we (the City) are willing to arrange space (at no cost) to accommodate a public meeting.

Please contact our City Manager, David Timmons to make any necessary arrangements for you. I trust that our request can be granted before the comment period closes and look forward to a positive response.



A NATIONAL MAIN STREET COMMUNITY

WASHINGTON'S HISTORIC VICTORIAN SEAPORT

Thank you in advance for the efforts to reach out and build a strong community partnership with a very challenging mission.

Very truly yours,



Michelle Sandoval  
Mayor

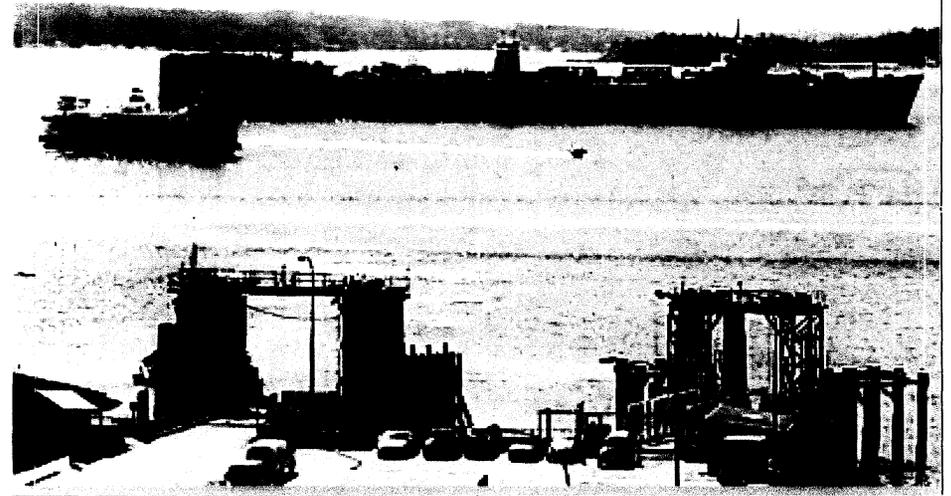
cc Senator Patty Murray  
Senator Maria Cantwell  
Congressman Norm Dicks

Contact info for: City Manager David Timmons  
250 Madison St., Suite 2  
Port Townsend, WA 98368

March 11, 2009  
343 35<sup>th</sup> Street  
Port Townsend, WA 98368

Naval Facilities Engineering Command NW  
Attention: Mrs. Kimberly Kler – NWTRC EIS/OEIS  
1001 Tautog Circle Suite 203  
Silverdale WA 98315-1101

Greetings Mrs. Kler:



Enclosed find 70 signatures regarding the expansion of the NW Training Range Complex. As the text of the enclosed signature pages states "we the undersigned" support the "no action alternative." Thank you for including our comments. Please keep us posted as the EIS process unfolds. Our addresses are included

Douglas Milholland



*c.c. Congressman Norm Dicks*

## Port Townsend Peace Movement

Naval Facilities Engineering Command Northwest,  
 Attention: Mrs. Kimberly Kler-NWTRC EIS/OEIS,  
 1101 Tautog Circle, Suite 203, Silverdale, WA 98315-1101.  
 email [www.nwtrangecomplexeis.com](http://www.nwtrangecomplexeis.com).

We, the undersigned members of the **Port Townsend Peace Movement**, support the "no action alternative" (maintaining existing training levels) in regards to the expansions planned by the Navy for its Northwest Training Range Complex.

The readiness exercises involve the Northwest fleet - including two aircraft carriers, 10 warships, 14 submarines, 90 support vessels and 119 aircraft - based at five installations in Washington state. Navy practice includes using high-powered and explosive sonars, missiles and munitions.

According to the Oregonian article **Navy plan to increase warfare training off Oregon coast draws objections** by Scott Learn & Lori Tobias "The biggest environmental concern is the Navy's use of midfrequency active sonar, which would increase under the plan. Sonar use damages whales and other marine mammals that use sound to communicate and navigate. The training area includes waters used by nine marine mammal species listed as threatened or endangered including seven whales. Of particular concern are Puget Sound's southern resident killer whales, whose population has dwindled to about 70.

In its review, the Navy said sonar exposure contributed to five "mass stranding events" worldwide since 1996, with whales showing up dead in numbers on the beach. The review says the increased training would boost potentially harmful mammal sonar exposures from about 110,000 a year to nearly 130,000. The Navy has rejected the idea of seasonal shutdowns or avoiding key habitat areas."

As important as training is to the Navy, we support the **No Action Alternative** due to the proposed testing of new weapon systems and the lack of information available to assess the impact on numerous endangered and declining marine species.

Name	Signature	address
Wanna Robio		PO Box 720 PTWA 98378
Candice Cosio		2607 HAVAS Pt. Townsend
Kathleen Hawn		1111 Hill Street apt 9236 Port Townsend 98368
Jeanette Richoux		735 P Street, Port Townsend
Beanette Richoux		
Dan Bishop		4303 Helcomb St Port Townsend
NANCY ALVAREZ		5629 Kuro St, Port Townsend

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Name	Signature	address
Frank Hoffmann		462 Jolie Way, Port Townsend WA 98368
Jaye Barwell		3325 McNeill St Port Townsend, WA 98368

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Naval Facilities Engineering Command Northwest,  
 Attention: Mrs. Kimberly Kler-NWTRC EIS/OEIS,  
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Name	Signature	address
Dennis E. Daneau		1103 V St Port Townsend, WA
Alanna J. Dorman		524 Pierce St Port Townsend 98368
Janet M. Hill		781 Island Valley Rd W Quilceena, WA 98337
Cindy Wolpin		624 Scott Street, Port Townsend WA 98368

## Port Townsend Concerned Citizens

Naval Facilities Engineering Command Northwest,  
 Attention: Mrs. Kimberly Kler-NWTRC EIS/OEIS,  
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Name	Signature	address
John Lockwood		Port Townsend
Howard Pack		3310 Kuhn St. Port Townsend
Caroline K. Wildflower		227 Woodland Ave Port Townsend 98368
CLINT WEIMERSTOK		
Michael J. Pruitt		316 33rd Pt. T.
Daniel M. Post		254 Woodland Ave Port Townsend 98368

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Name	Signature	address
Helen Lauritzen	<i>Helen Lauritzen</i>	325-33rd, Port Townsend
Margaret Schonfield	<i>Margaret Schonfield</i>	240 Woodland Ave, Port Townsend
Sandra Stowell	<i>Sandra Stowell</i>	316 33rd St, Port Townsend
Larissa Spafford	<i>Larissa Spafford</i>	426 Woodland Avenue
JAMES E POST	<i>James E Post</i>	254 Woodland Ave P.T.
Peter Lauritzen	<i>Peter Lauritzen</i>	325-33rd St, Port Townsend 98308

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Name	Signature	address
PAT KAHN	<i>Pat Kahn</i>	294 Lawn Meadow Cliffmassum, WA 98322
Joanne Kurekawa	<i>Joanne Kurekawa</i>	1829 Lincoln Street PT, WA 98368
Laura Martin	<i>Laura Martin</i>	805 Calhoun Port Townsend, wa. 98368
Amanda Milholland	<i>Amanda Milholland</i>	343 35th St Port Townsend, WA 9

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Name	Signature	address
Perry Spring	<i>Perry Spring</i>	601 Willow St PT, WA 98368
Randy A. Wells	<i>Randy A. Wells</i>	899 22 Street Port Ta. 98368
<i>Q. P. M. G.</i>	<i>Q. P. M. G.</i>	305 Kearney Port Town 98368
WILLIAM H. DENTZEL	<i>William H. Dentzel</i>	543 52nd St. P.T. 98368
Keely Passan	<i>Keely Passan</i>	4440 Elmira St PortTown 98368
Norm Liden	<i>Norm Liden</i>	390 Adema Beach Rd Pt 98368
Forest Shomer	<i>Forest Shomer</i>	2014 FIR PORT TOWNSEND 98368
Bobbie Liden	<i>Bobbie Liden</i>	390 Adema Beach Pt 98368
RICHARD ERICKSON	<i>Richard Erickson</i>	3422 COPPER ST PT. WA

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Name	Signature	address
Denise Joy	<i>Denise Joy</i>	Po Box 368 Port Townsend WA 98368
O'Neill D. Louchard	<i>O'Neill D. Louchard</i>	P.O. Box 162 Port Townsend, WA 98368
James L. Davis	<i>James L. Davis</i>	Po Box 2014 P.T.WA, WA 98368
TRUBY DAVIS	<i>Truby Davis</i>	" " " "
K R Pratt	<i>K R Pratt</i>	2260 Eaglemt Pt Wen 98369
GERALYN G. LALISH	<i>Geraldyn G. Lalish</i>	1111 E. MARQUETTE RD. NORDLAND, WA. 98358
JULIA B. COCHRANE	<i>Julia B. Cochrane</i>	413 Umhill. Port Townsend, WA 98368
Margaine S. Hill	<i>Margaine S. Hill</i>	PO Box 1997 PT WA 98368
Sharon Sandon	<i>Sharon Sandon</i>	PO Box 1744 PT 98368
GERALYAN RAKAUSKI	<i>Geraldyan Rakauski</i>	P.T. WA 98368
DANIEL PHILLIPSON	<i>Daniel Phillipson</i>	PO#368 PT WA 98368

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Nancy Mitholland		343 35th P.T.
Jeta von Paitzen		1229 29th P.T.
Brenda McMillan		2429 Sheridan P.T.
Frances Campbell		1422 Washington St. P.
Dave Campbell		11 2121 Holcomb St P.T.
John Rush		PT. WA.
	Rick Ogawa	P.T. WA.
	Dave Landstrom	2535 35th ST P.T.
	JANE LANDSTROM	

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In its review, the Navy said sonar exposure contributed to five "mass stranding events" worldwide since 1996, with whales showing up dead in numbers on the beach. The review says the increased training would boost potentially harmful mammal sonar exposures from about 110,000 a year to nearly 130,000. The Navy has rejected the idea of seasonal shutdowns or avoiding key habitat areas."

As important as training is to the Navy, we support the **No Action Alternative** due to the proposed testing of new weapon systems and the lack of information available to assess the impact on numerous endangered and declining marine species.

Name	Signature	address
Sally Holm		1426 Spruce St Port Townsend, WA
Nancy Mitholland		343 35th St., P.T.

### Port Townsend Concerned Citizens

Naval Facilities Engineering Command Northwest,  
 Attention: Mrs. Kimberly Kler-NWTRC EIS/OEIS,  
 1101 Tautog Circle, Suite 203, Silverdale, WA 98315-1101.  
 email [www.nwtrangecomplexeis.com](http://www.nwtrangecomplexeis.com).

We, the undersigned citizens of Port Townsend support the "no action alternative" (maintaining existing training levels) in regards to the expansions planned by the Navy for its Northwest Training Range Complex.  
 The readiness exercises involve the Northwest fleet -- including two aircraft carriers, 10 warships, 14 submarines, 90 support vessels and 119 aircraft -- based at five installations in Washington state. Navy practice includes using high-powered and explosive sonars, missiles and munitions.

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Name	Signature	address
SUSAN DORAZIO	<i>Susan Dorazio</i>	2025 9th St Port Townsend, WA
Eric Chester	<i>Eric Chester</i>	2025 9th St PT
LINDA SMITH	<i>Linda Smith</i>	710 FOSTER, PT 98365 40 Queens Place P.
Kate Franco	<i>Kate Franco</i>	
Eugene T. Vought	<i>Eugene T. Vought</i>	PO Box 246 & P.A. 9836
Candice Cosb-	<i>Candice Cosb-</i>	2607 Harris S Pt. Townsend WA 9836

### Port Townsend Concerned Citizens

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 Attention: Mrs. Kimberly Kler-NWTRC EIS/OEIS,  
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As important as training is to the Navy, we support the **No Action Alternative** due to the proposed testing of new weapon systems and the lack of information available to assess the impact on numerous endangered and declining marine species.

Name	Signature	address
LINDA ANNOTT-ROE	<i>Linda Annott-Roe</i>	774 Myrtle St Dr Port Townsend, WA
FRANK SMITH-VENTURI	<i>Frank Smith-Venturi</i>	PO Box 1615-PT TOWNSEND
Margaret P. Stank	<i>Margaret P. Stank</i>	1051 Hancock Pt Townsend
SUSI BARTHA	<i>Susi Bartha</i>	1048 JACKSON ST WA
Pam McCullum	<i>Pam McCullum</i>	PO Box 1179 Port Townsend 98365
Carole Sullivan	<i>Carole Sullivan</i>	5207 Landers Pt WA
LISA STOUT	<i>Lisa Stout</i>	PO Box 1472 PT 98365
Victoria Mansfield	<i>Victoria Mansfield</i>	12 Andrew Ave PT. WA 98365
Joyla Dill	<i>Joyla Dill</i>	4892 Good Paper Ln. Freeland WA 98244
Nancianna Martri	<i>Nancianna Martri</i>	751 Kearney P.P 98368
Merna Holloway	<i>Merna Holloway</i>	203 E. Mishawaka Ave Ste B Mishawaka IN 46545
Celina Dill	<i>Celina Dill</i>	4892 Good Paper Ln. Freeland WA 98244

Greetings

The enclosed info is alarming, and reaches towards our center of being in harmony with all life. The sight of a whale, of a pod of orcas, the sight of a dolphin playing in your boat's bow wave - how many of us have had these experiences? Will you miss them if they disappear during our lifetime? The following excerpts are from a number of sources.

Information from the Navy can be found at the Port Townsend Public Library & the Jefferson County Library

You can submit written commentaries online at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)

or mail to:

Naval Facilities Engineering Command Northwest,  
Attention: Mrs. Kimberly Kler-NWTRC EIS/OEIS,  
1101 Tautog Circle, Suite 203, Silverdale, WA 98315-1101.

Your comments can be submitted until March 11<sup>th</sup>.

Douglas Milholland

### OCEAN HABITATS AND INHABITANTS AT RISK

The Navy is planning to vastly expand its training activities in the Northwest Training Range Complex to include the north end of Admiralty Inlet and eastern Strait of Juan de Fuca and much of Washington (out 200 miles), Oregon and part of California coastlines, including the Olympic National Park.

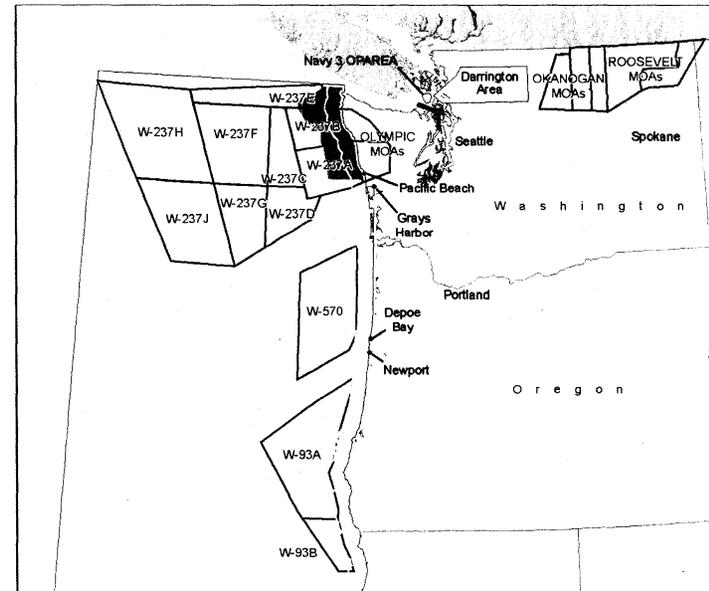
When comments are made, in addition to recommending a "No Action Alternative," the Navy should improve the mitigation measures to include training by experienced whale biologists of monitoring personnel to improve recognition of marine mammals by visual and acoustic monitoring. The Navy has issued a "whale protection" wheel device with tiny graphics of ten whale species (not including orcas) and written descriptions of blows, backs and flukes, but it is not likely to be much use in normal sea-state conditions.

Recognizing acoustic calls is difficult in calm conditions. These exercises would take place in the midst of multiple ships and high-powered and explosive sonars and munitions, making recognition virtually impossible. Even with the best monitoring by experienced people, the mitigation measures are woefully inadequate. It's almost impossible to reliably detect

marine mammals visually or acoustically underwater or in rough weather, especially when compounded by training conditions

*NO* The challenge is to halt the need for these training exercises altogether, which is a problem of international relations and diplomacy. NOAA has to comment on it, and the new NOAA administrator, Jane Lubchenko, is a marine biologist with strong environmental credentials.

While recognizing the need for readiness through training, the No Action Alternative is all that we can support due to lack of information available to assess the impact on numerous endangered and declining marine species, especially with proposed testing of new systems.



Cloaked in an impressive array of laws and presidential directives, the Navy claims authority to do whatever it pleases, whenever and wherever it pleases. The EIS process is supposed to alert the public to what those actions are going to be.

The present EIS are specified in vague terms, and the locations for such actions are rarely specified at all. Because national security apparently requires the never-ending acquisition of new weapons systems, new aircraft, new ships and new equipment, the Navy intends to expand the area, frequency and intensity of weapons testing and training operations currently centered on Puget Sound, and intends to do so over the entire Pacific Northwest as necessary — without specifying what constitutes “necessary.”

The Navy wants to significantly increase its training activities, which includes using unmanned drones, setting off explosives underwater AT NAVMAG INDIAN ISLAND & other locations, setting up minefields, targets for shooting practice and other practice warfare exercises.

The Executive Summary of the EIS/OEIS states that the Navy is working with the National Marine Fisheries Service (NMFS), but it seems the Navy could not be bothered to contact an internationally-known marine mammals researcher, representatives of local fisheries, or local government representatives (who also happen to be directly involved in the fishing industry).

The Navy's Northwest Training Range Complex includes inland waters, such as bays and estuaries, subsurface waters, sea floor and the airspace along the coast (as far inland as Idaho), use of various types of sonar (there has been litigation up to US Supreme Court regarding the very serious effects of the Navy's sonar on whales), low altitude training flights of the Navy's new missile bearing jet, etc.

**The Navy needs to rethink and abandon large parts of this entire proposal. The potential effects of new and increased military could result in a general degradation of the natural environment, be fatal to wildlife and detrimental to the human quality of life, and contrary to the best interests of the tourism industry and coastal property values.**

The Oregonian 2/4/09 Scott Learn & Lori Tobias

“The biggest environmental concern is the Navy's use of midfrequency active sonar, which would increase under the plan.

Environmental groups are suing over such sonar use, arguing that it

damages whales and other marine mammals that use sound to communicate and navigate.

The training area includes waters used by nine marine mammal species listed as threatened or endangered, including seven whales. Of particular concern are Puget Sound's southern resident killer whales, whose population has dwindled to about 70.

In its review, the Navy said sonar exposure contributed to five “mass stranding events” worldwide since 1996, with whales showing up dead in numbers on the beach.

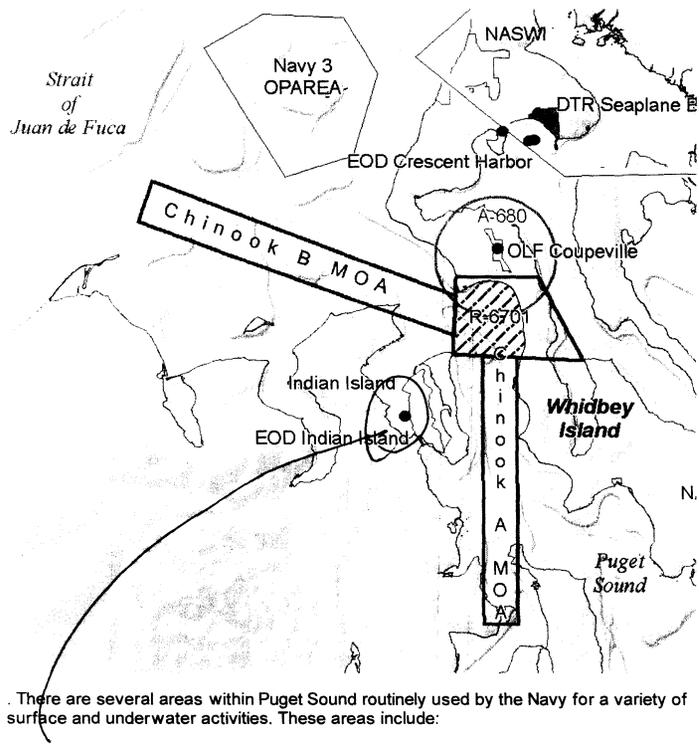
The review says the increased training would boost potentially harmful mammal sonar exposures from about 110,000 a year to nearly 130,000. But it predicts little damage, in part because the Navy limits sonar use when mammals are spotted near ships and submarines.

Sonar is crucial for submarine detection, the report said. Forty nations operate modern submarines, it said, including Iran and North Korea.

But Bruce Mate, director of the Marine Mammal Institute at Oregon State University, says there's not enough information on the location and timing of sonar use to assess the risk.

The Navy rejected the idea of seasonal shutdowns or avoiding key habitat areas.”

Please influence the outcome of the Navy's plans. WE are the ones who will live with all the possible negative consequences if the Navy is wrong. And unfortunately, many marine mammals may be gone.



There are several areas within Puget Sound routinely used by the Navy for a variety of surface and underwater activities. These areas include:

- Indian Island Underwater EOD Range. This area is located offshore, just west of Naval Magazine (NAVMAG) Indian Island. The blue dot west of Indian Island is an underwater explosive practice area.
- Navy 3 is a polygon of water space used by Navy ships for training. This area is located 8 nm west of NAS Whidbey Island.
- Navy 7 is beneath R-6701.
- Crescent Harbor Underwater EOD Range is located in Crescent Harbor off of the Seaplane Base at Whidbey Island.
- Floral Point Underwater EOD Range is located within a Navy operating area in Hood Canal, near NBK-Bangor.

The Port Townsend Religious Society of Friends (Quakers) is concerned about the effects of increased military training in the Northwest Training Range Complex. The increased use of high-powered and explosive sonars, missiles and munitions will have a detrimental effect on the ecosystem of the Puget Sound. One area of concern is the increased use of mid-range sonar, which environmentalists and the Navy alike find damages nine groups of endangered or threatened marine mammals. We support the "no action alternative" as the best means offered of protecting and preserving our local ecosystem.

**From:** [Murray, Sheila A CIV CNRNW, N00P](mailto:Murray, Sheila A CIV CNRNW, N00P)  
**To:** ["porterptown@yahoo.com"](mailto:porterptown@yahoo.com);  
**Subject:** RE: Comment/NWTRC EIS  
**Date:** Sunday, March 08, 2009 11:08:29

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Good morning Ms. Porter. I am happy to pass on your comments on to Kimberly Kler. I also tried submitting a comment through the website, and it appears that it went through. In the meantime, I will pass on your concern to the Northwest Training Range (NWTRC)EIS webmaster. Public comments are an important piece of the NEPA process. Thanks for taking the time to comment on the NWTRC EIS. Respectfully, Sheila Murray

Sheila Murray  
NAVMAG/Environmental Public Affairs  
1100 Hunley Rd.  
Silverdale, A 98315  
(360)396-4981- (360)340-5398(c)

-----Original Message-----

From: porterptown@yahoo.com [<mailto:porterptown@yahoo.com>]  
Sent: Sunday, March 08, 2009 9:09  
To: Murray, Sheila A CIV CNRNW, N00P  
Subject: Comment/NWTRC EIS

Dear Shiela,  
I posted this on the comment page on the Navy web-site. I don't think it went through, are you having problems with your site? I looked again for an e-mail address for Kimberly Kler and could not locate one. Can you make sure this gets into the comments?  
Respectfully;  
Pat Porter

Kimberly Kler, Navy Environmental Planner; I have reviewed the Northwest Training Range Complex EIS and feel that Biological Assessments/information are completely inadequate in addressing NMPA and Endangered Species Act guidelines. Current training levels at Crescent Harbor, Whidbey Island and Naval Magazine Indian Island, Port Hadlock are in question as to the 'actual takes' and estimated 'take' by Navy testing and training of inert explosives. NOAA has documented the testing at Crescent Harbor which indicates that the effects of these 'explosions' are far more damaging than the Navy is indicating in the NWTRC EIS. The level of testing proposed by the EIS will cause detrimental impacts on the Orca population in the Puget Sound. Increased

Navy testing in Port Townsend Bay is not only an environmental concern but a safety hazard due to the proximity to Port Townsend proper. The community of Port Hadlock and Kala Point would be put at risk with expanded training and testing, while they are less than a mile from Crane Point (testing area). The No Action Alternative proposed does not address the existing problems with current training and testing levels. The NWTRC is too vast in size with unnecessary encroachments on coastal waterways with communities dependent on tourism and local fishing industries. The Navy needs to look at new environmentally friendly methods of training our military personal.  
Patricia Porter  
Port Townsend, WA



**Quileute Natural Resources**  
QUILEUTE INDIAN TRIBE

401 Main Street • Post Office Box 187  
LaPush, Washington 98350  
Phone: (360) 374-5695 • Fax: (360) 374-9250



February 4, 2009

Kimberly Kler, Environmental Planner  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101

Re : Draft EIS Navy NW Training Range Complex  
Comments of the Quileute Tribe

This is a brief review and a request for a meeting with our policy and technical personnel, to discuss. Please see below.

First let us say that Quileute is a member of the Advisory Council of Olympic Coast National Marine Sanctuary and we participated in their review. We adopt their comments as our own by reference here and agree in full with the statements therein.

It is clear this has been a huge labor on the part of the Navy but we are concerned about a number of matters in addition to Advisory Council remarks. We find that certain statements are lacking in detail and do not explain situations to our satisfaction.

For example, in ES 1.5.3.1, par. 3, nonreactive materials are said to provide "strong resistance" to degradation but expended materials "eventually degrade". This is somewhat contradictory but the statements stand side by side. That needs clarity. In the last line of the same page, we must accept your word that gases form harmless substances in seawater but there are no citations to support the remark.

At ES 1.5.7, fish are killed by shock waves and we take your word this is insignificant but there are no data to show ratios of impacted fish vs non-impacted, or areas affected vs not affected. The same is true for invertebrates, in 1.5.6.2.

We are dismayed to see a discussion of use of depleted uranium at page 3.3.9—we were told by Navy staff that this use was either discontinued or at least the types of missile coverings were of a different nature so that effect was de minimus. Now we see it is used,

regularly, but only one reference from 1974 is relied on to reassure us of minimal bioaccumulation. Some British studies from about 5 years ago show no evidence of the uranium after use, so we are led to believe what? It is taken up? It is disseminated in currents? You do not offer a reason. It is critical for our fisheries, to know this matter.

Under Cultural Resources, 3.12.1.1.2, you include tribal fishing rights and deserve kudos for this as so few entities recognize anything beyond artifacts as of tribal cultural significance. Under Public Safety, 3.16.1.1, we hope to be able to assure our fishing craft are not in the path of testing activity and need to discuss that with you. We use at a minimum test areas W-237 A, B, C, D, F, and H regularly.

The Quileute Tribe values the service of the US Navy to our nation, and appreciates so much Admiral Symonds' efforts to reach out to tribes. In that vein, can we have a conversation in person, not perhaps at the government-to-government level but more informally, technical and policy to technical and policy, to discuss matters mentioned here? That would be appreciated. To set up such meeting, please contact me at 360/374-2265 or [katie.krueger@quileutenation.org](mailto:katie.krueger@quileutenation.org).

Sincerely,

Katherine Krueger,  
Staff Attorney and Policy Analyst,  
Quileute Natural Resources

cc: Carol Hatch, Chair Quileute Tribe  
Mel Moon, Director, Quileute Natural Resources.



# Quinault Indian Nation

POST OFFICE BOX 189 • TAHOLAH, WASHINGTON 98587 • TELEPHONE (360) 276-8211

Kimberly Kler, Environmental Planner  
Naval Facilities Engineering Command NW  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101

March, 11, 2009

Re: DEIS Comments for NWTRC Activities

Ms. Kler,

The following will serve as comments from the Quinault Indian Nation on the Draft Environmental Impact Statement (DEIS) for the proposed expansion of activities within the Northwest Training Range Complex (NWTRC). We appreciate the work the Navy has done on the DEIS and the opportunity to comment on it.

The Quinault Indian Nation (QIN) is one of four coastal treaty tribes with management rights to the ocean areas adjacent to our reservations on the Washington state coast. The Quinault Nation has a federally adjudicated Usual and Accustomed harvest area (U&A) that encompasses the majority of Navy Operating Area W-237-A South. Quinault currently operates 28 tribally owned fishing vessels out of Westport, WA. These vessels fish for crab, halibut, blackcod (sablenfish), lingcod, rockfish and salmon in the W-237-A Operating Area. Quinault also has plans to expand their fisheries within this area in the future and reserves the right to do so.

The QIN has recently made comment on the proposed expansion of the Naval Undersea Testing Range to use all of W-237-A instead of a much smaller area. Those comments are available through the NUWC Division at Keyport, WA. Our concerns with that range expansion and the proposed expansion of activities in the NWTRC are very much the same. Quinault has ceremonial, subsistence and commercial fisheries that are place-based. That is, there is no place else for us to fish but within that area. We cannot move our fishing effort elsewhere and therefore insist that any activities conducted by the Navy do not interfere with that Treaty Right, affirmed by the United States Government.

To avoid any conflicts with our fisheries and to foster continued cooperation we request that the Navy formally declare protocols and points of contact with Quinault that would keep the QIN informed in a timely manner of any activities that may, potentially, affect our fisheries, either directly or indirectly. A meeting should be held between our governments to formalize this process and avoid any potential conflicts.

If the Navy fulfills this request and obligation the Quinault Nation would have no objections to the Preferred Alternative within the DEIS (Alternative 2), which expands your operations within the NWTRC.

The following are General Comments regarding activities that the QIN may have issue with within the U&A and thus, W-237-A South.

## General Comments

Interference with our fisheries: can occur by naval vessels transiting or conducting exercises in the area; by scheduling activities during the seasons and times and within the areas of our fisheries; by interference with navigation and communication systems on our fishing vessels (Electronic Combat and communications by

naval vessels) and by deployments of the Portable Undersea Tracking Range (PUTR) and submerged Minefields. We request that activities such as these not occur within W-237-A, or at minimum, be scheduled and placed so as not to impact our fisheries or threaten the safety of our vessels and fishers.

Impacts to our fisheries resources: can occur from weapons fire, explosive ordnance, acoustic effects on fish, toxic contaminants resulting from exercises, gear, wire or cable entanglements. We have reviewed your findings of minimal effects for most of these concerns but note that limiting proximity to the fisheries resources of the QIN is essential for assuring that minimal impacts will occur.

Other potential impacts of concern: would include flight noise that could interfere with the peace of our coastal communities; degrading toxics in the ocean that may cause cumulative effects or possible bio-accumulation over time; that promised retrievals of deployed equipment by the Navy may not occur for various reasons; and that, even though the Navy has studied this extensively, that marine mammal strandings may occur as a result of high-powered sonar activity.

## Specific Comments to the DEIS:

- (Addressing Section 3.12.1.1.2 Tribal Fishing Rights Page 3.12-5 Fifth bullet) reads "...Quinault participate in a variety of groundfish fisheries..." This passage should include mention that tribes reserve right to fish for groundfish with any gear including traps and trawl gear. Also Quinault fishes off the Central Washington coast so not just 'off' the north coast of the Olympic Peninsula.'
- (Same page, next bullet) Though the header states that "Native Americans use these areas for both commercial and subsistence fishing, as follows." it is not clear in the bullet detailing near-shore fisheries that all of these species may be harvested commercially as well as for subsistence and ceremonial purposes.
- (Same page--should be included) The Quinault fishing fleet is based in Westport, Washington and fishes the open ocean area from there north to Destruction Island. This fleet and a smaller river fleet also fish commercially within Grays Harbor.
- (Section 3.12.1.1.3 'Culturally Significant Areas') The coast of the Quinault Reservation north of Pt. Grenville to the Queets River is considered Culturally Significant by the Quinault people. This beach area is closed to the public unless a pass is issued by the Tribal Council.
- (Page 3.12-7—"Pacific Coast Tribes and tribes with Treaty Fishing Rights") Besides being members of the Olympic Coast National Marine Sanctuary Advisory Council, the four Coastal Tribes, with the State of Washington have formed an Intergovernmental Policy Council (IPC) to better coordinate the needs and rights of the co-managers of the resources within the OCNMS with Sanctuary staff and the National Marine Sanctuary Program.

Sincerely,

Fawn Sharp  
President, Quinault Indian Nation

**United States Navy  
Public Hearing Comment Form**  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below

All comments must be received no later than March 11, 2009, to be considered in the Final EIS/OEIS.

Name: Debra Ramirez  
Organization/Affiliation: Private Citizen / Redwoodly Little River Band of Pomo Indians  
Address: 1027 Redwood Dr  
City, State, Zip Code: Redwoodly CA 95470

Comments: I was so upset to see this article about the Navy's ocean testing program, as was my 8yr. old Granddaughter who asked me "Gram what's new in the paper today?" I explained the article to her. She threw her arms up and asked "What can we do to save the whales and dolphins?" We as native people gather some of our food from the ocean you propose to destroy. I want my Granddaughter and her 2yr old Brother to continue to enjoy our cultural ways. This testing program will end the cycle of our fish, and the migration of the whales and dolphins in the Spring. Please consider this scared site.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

My Granddaughter ask you "to please keep our ocean animals safe"

**United States Navy  
Public Hearing Comment Form**  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



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Name: Shirley Ray  
Organization/Affiliation: Indian Senior Center, Inc.  
Address: 425 N. State Street  
City, State, Zip Code: Ukiah, Ca 95482

Comments: We are against Mendocino County ocean waters being used as weapons testing. There is enough contamination in this world. How much is too much.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

# United States Navy Public Hearing Comment Form

Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



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Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

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All comments must be received no later than March 11, 2009, to be considered in the Final EIS/OEIS.

Name: Elizabeth Raybee

Organization/Affiliation: Tierra ART GARDEN

Address\*: 12773 Pine Ave

City, State, Zip Code: Potter Valley CA 95469

Comments: We have not all signed up for this

experiment. We should not be exposed  
to dangerous chemicals, nor should the wild sea  
creatures. INSTEAD of spending all that time  
on money developing weapons - let's spend it  
on peace making efforts. Spend it developing  
solar & wind energy, which would make wars  
unnecessary.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

**Kler, Kimberly H CIV NAVFAC NW, EV1**

From: Rochon, Don CIV NAVFAC PAC  
Sent: Monday, February 02, 2009 9:48 AM  
To: anthony redelsperger  
Cc: Kler, Kimberly H CIV NAVFAC NW, EV1; Yuenger, Leslie A CIV NAVFAC NW; Macariola-See, Nora R CIV NAVFAC PAC  
Subject: RE: Sonar off Oregon coast

Mr. Redelsperger:  
Thank you for your e-mail regarding sonar usage in the waters off the Oregon coast. I'm not sure why you sent this information to me, however, as my command did not participate in or coordinate the event you speak of. You may want to officially send this e-mail and subsequent responses to the NAVFAC Northwest Environmental Project Manager, Kimberly Kler, whom I have copied above.

R/Don

Don Rochon  
Director, Public Affairs  
Naval Facilities Engineering Command Pacific  
258 Makalapa Drive, Suite 100  
Pearl Harbor, Hawaii 96860-3134  
Voice: (808) 472-1008  
Cell: (808) 368-2079

-----Original Message-----

From: anthony redelsperger [mailto:redelspergera@gmail.com]  
Sent: Friday, January 30, 2009 16:47  
To: Rochon, Don CIV NAVFAC PAC  
Subject: Sonar off Oregon coast

Dear Sir,

January 30, 2009

I have just heard, for the first time, that this evening, in Newport, Oregon, will be the only opportunity for the public to make their opinions known regarding the Navys' use of sonar off the coast of Oregon. I have also heard that the Navy has intentionally only just announced the meeting publicly to avoid large numbers of attendees. The fact that I live in an inland community will indeed, certainly preclude me and many others from reaching the coast in time to attend this meeting. I find this decision to be, at best, sneaky and at worst somewhat underhanded.

Over and over again scientific facts have come to light making clear that the use of this sonar IS harmful to aquatic mammals. The fact that most of us will be unable to have our voices heard by Navy representatives in Newport on this subject this evening is quite unfortunate and unfair.

Oregon has twice yearly migrations of whales and many coastal communities depend, in part, on the revenues of whale-watching tourism to survive. The reason these communities would be affected is because THESE TESTS KILL WHALES.

But, putting the financial burdens it would have on the communities aside, BECAUSE of the dangers to the ocean wildlife caused by these sonar tests, I MUST STRONGLY OBJECT TO ITS' USE OFF THE OREGON COAST.

Please, PLEASE, I beg you to reconsider the testing of this sonar off our pristine, beautiful, natural Oregon coastline. There must be other less harmful ways and less vulnerable areas in which these tests can be more safely conducted.

I realize that the Navy, despite the proven dangers to wildlife, lawsuits and the outcries of scientists and concerned citizens around the world, will do whatever they want anyway. But, just know that our planet belongs to everyone, man and beast, and is the only one we have. If it or its' inhabitants are harmed or destroyed we get no second chance. This is our one time to get it right. All legitimate concerns must be seriously weighed, not just given lip service. It is not just about whales. It is not just about the needs of the U.S. Navy (in which my father proudly served). It is about how we, with our ability to

reason, manage and protect, on a much larger scale, this Earth, this Gift, OUR WORLD.  
Please respect this gift.

Respectfully, Anthony J. Redelsperger

25999 Peacock Road  
Willits, California 95490

March 24, 2009

Naval Facilities Engineering Command Northwest  
1101 Taulog Circle, Ste. 203  
Silverdale, WA 98315

Attn: Kimberly Kler

Re: Northwest Training Complex  
Draft Environmental Impact Statement

I would like this letter to be entered into the record as part of the written comments generated by the Navy's proposal to expand ocean and land-based operations by conducting underwater demolitions, electronic communications and testing explosives and surveillance systems.

The undersea world is such a fragile place, can't we just leave it alone? It's bad enough that barges loaded with garbage are taken out to sea and that we seem to be continuously layering it with oil and gunk. I saw a short film the other day that featured dolphins creating their own toys. They blow bubbles through the hole on their back side. They create new bubbles by nudging the first bubble. They know at what depth to keep the bubbles from bursting, and they use them like giant hoops which they jump through. Why would you even consider destroying that serenity?

I was recently privileged to watch the whales' migration from the incredibly beautiful Mendocino Headlands and can't imagine even for a moment interfering with this yearly miracle in their life cycle.

Please do not proceed with this awful proposal.

Sincerely,



Gail Richards

GR:gr

cc: Rep. Mike Thompson

Naval Facilities Engineering Command NW  
1101 Tautog Circle Suite 203  
Silverdale, WA 98315-1101

January 1, 2009

SUBJECT: Support for Alternative 2 of the EIS/OEIS NW Training Range Complex

Dear Sir/Madam;

I hold an MS-Environmental Studies from the University of Wisconsin-Madison. I and my family and friends fish and recreate within the NW Training Range Complex. I have reviewed the EIS/OEIS of the Range Complex for Naval training and testing of planes, ships, submarines, weapons, men, and the potential for environmental impacts.

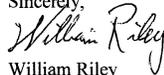
I evaluated the

- \*No Action Alternative
- \*Alternative 1
- \*Alternative 2

Mrs Kimberly Kier-NWTRC EIS

I have concluded that Alternative 2 is the only logical conclusion that will afford realistic testing of future planes, ships, submarines, weapons, and men, while at the same time minimizing environmental impacts.

Sincerely,



William Riley

POB 1285

Soap Lake, WA 98851-1285

Email [UncleBill@smwireless.net](mailto:UncleBill@smwireless.net)

**Martha Roden**

102 Peterson Street  
Fort Collins, CO 80524  
[marroden@comcast.net](mailto:marroden@comcast.net)

Mrs. Kimberly Kier  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, Washington 98315

March 31, 2009

Dear Mrs. Kier,

I was horrified to learn that the U.S. Department of Defense and the U.S. Navy want to expand their Northwest Training Range Complex and request permission from the U.S. Department of Commerce (NOAA) to kill thirty two species of marine animals over five years in the their Pacific Ocean Warfare testing program.

I adamantly oppose the expansion of the areas of operation, which will include large areas of the Pacific Ocean from California to the State of Washington and areas along the border between the United States and Canada.

My understanding is that the testing program will use mid- and high frequency active sonar sources and explosive detonations," both of which are lethal to marine life. The U.S. Navy's move to test more weapons of mass destruction in the Pacific Ocean is reminiscent of the outmoded thinking that tested atom bombs in the Bikini Atoll after World War II.

I also understand that, once implemented, there is no date specified in E.I.S. for this Navy Warfare Testing Program to end. This is unthinkable.

That said, I strongly urge that the Navy's request be denied.

Sincerely,



Martha Roden

Attn: Mrs. Kimberly Kler – NWTRC EIS/OEI  
Naval Facilities Engineering Command Northwest 1101 Tautog Circle,  
Silverdale, WA  
98315-1101

Dear Mrs. Kler,

Of the proposals that the Navy laid down during its hearing at the Hatfield Marine Science Center in Newport January 30, The No Action Alternative is the only one worthy of recommending. Unless there is a Cease and Desist alternative.

It is ludicrous to state that under Alternatives 1 and 2 that undersea detonations will decrease dramatically, as if this is the more marine-friendly way to train. Obviously the cumulative impact of the additional training under Alternatives 1 and 2 will have a much more adverse impact on aquatic life.

It is almost impossible to believe that training exercises that include underwater mine fields, exploded and unexploded bombs, gunnery rounds etc and heavy vessels would not have adverse impacts on the area it is occurring. Depleted uranium anyone? One of your officers told me that there is no assurance the war games will stay in the suggested areas, that the actual location of the training areas have to remain classified. What can we go on to rest easy that your work will not drift into more sensitive waters than your proposed deep sea maneuvers?

What recourse does a coastal community have from the adverse effects of your training?

The best defense is to do no offense to our greatest resource.

Yours,

-----A

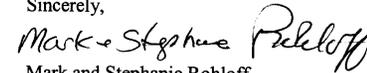
Andrew Rodman  
758 NW Cottage St.  
Newport, Ore. 97365

3/25/09

Naval Facilities Engineering Command Northwest:\  
Kimberly Kler:

**We are against using the Mendocino, CA Coastal waters for naval air exercises!**

Sincerely,



Mark and Stephanie Rohloff  
2209 Road H  
Redwood Valley, CA 95470

April 6, 2009

Naval Facilities Engineering Command Northwest  
ATTN: Mrs. Kimberly Kier - NMTRC EIS  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101

Re: Northwest Training Range Complex

To Whom It May Concern:

Please do not proceed with this expansion. The Pacific Ocean needs more protection especially during this time of global warming and threatened species. Development of an underwater training minefield, deployment of thousands of sonar-emitting sonobouys, testing of new aircraft and missiles will result in tremendous negative environmental impacts.

The Humboldt Bay area is very active seismically and should be protected from destabilizing impacts. What guarantees can be given regarding seismic safeguards? Fisheries are in serious decline and salmon species are threatened along Northern California. How will all this new activity and weapons training affect this critical situation? What about harmful air and environmental impacts in general on mammals and humans. How will such effects be monitored and public notification be disseminated?

Understandably the Navy wants to maintain its readiness and mission to protect our country, but expanding and increasing the levels of activity in sensitive ocean environments is unsafe and unwise and seems contrary to their goal.

Sincerely yours,

Nola Roiz  
P. O. Box 6309  
Eureka, CA 95502

Copy: Representative Mike Thompson  
Senator Barbara Boxer  
Senator Dianne Feinstein

April 9, 2009

Loie Rosentkrantz  
17201 Franklin Rd  
Fort Bragg Ca  
95437

Naval Facilities  
Engineering Command N.W.  
1101 Tautog Circle, Suite 203  
Silverdale, Washington 98315

ATTN: Mrs Kimberly Kier  
NWTRC - EIS

Dear Mrs. Kier,

I live in Fort Bragg California, which is 150 miles north of San Francisco, between Pt. Arena and Eureka, Ca.

I am writing to communicate how opposed I am, and many, many of my neighbors are, to the Navy plan to take 32 species of marine-mammals in the 5 year warfare testing plan in the Pacific Ocean. This is estimate to kill 2.3 million mammals a year. (5 x 2.3 mil =)

The ocean's resources are not endless!  
Thank you for your consideration! Loie Rosentkrantz  
Lauren Hunt

Feb. 12, 2009

I have lived on a Pacific Ocean facing, western slope of the coastal ridges near the Mendocino-Humboldt County line for over 30 years. The ocean horizon is the view from my property & many windows of my house, as it is of my many rural neighbors. From the air one does not see parking lots & shopping centers here, but rural communities flanked by Wilderness State Parks & National Forest/Wilderness areas. This area contains the strenuous & precipitous Coastal Trail.

We live here because we need clean water, clean air & the peace & quiet of whispering trees & the calming sounds of birds & frogs.

About 20 years ago at a local beach, I went out on a point of rocks to check out the view. To my shock I found a fighter jet at eye level, flying right over the water less than a hundred feet from me, silent as death, as the sound was far behind. At least then I was young enough to not have a heart attack - not so now.

Maybe you don't remember when our community suffered sonic booms that shattered our hearing? Mercifully you ended them after we complained.

Do you remember the military aircraft that went down in the deepest trenches off Cape Mendocino several years ago? It took years to find it & more years to bring up the remains. I would think such a deep water training area not such a great idea.

I do not want to see any increase in naval training in the NWTK complex. Two communities of northern Mendocino Co. have whale festivals every year celebrating the whale migration through here. These festivals are an important economic thing for these small towns.

Don't risk the health + migration routes of these important mammals with sonar + depth charges.

There are hardly any fish left on the north coast. The numbers of Brown Pelicans + Cormorants has dropped very low. They should not be frightened off their nesting territories by aircraft.

There is precious little coastal wilderness left. Even a little damage can spell the end of many species now. Do not increase your training here!

You could be more accessible to receiving comments if 1) your web site could be searched - I entered NWTRangeComplex.com + found nothing. 2) if your postal address was shorter + more concise - yours is so long no one would repeat it on the radio - how about initials - NFECNW + a p.o. box instead of a long street (road name) - Suite? Most people will not read long names + addresses - much less write them down. Your comment information was not in either of the 2 local newspapers. Please try harder next time to truly engage the public. But I do thank you for the comment extension time of Feb. 18th.

Sincerely, Ms. Janice Sadon  
P.O. Box 398  
Whitehorn, Ca. 95589

United States Navy  
**Public Hearing Comment Form**  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: Janice Sadon

Organization/Affiliation: \_\_\_\_\_

Address: P.O. Box 398

City, State, Zip Code: Whitehorn, Ca. 95589

Comments: I object to any increased activity in the Northwest Training Range Complex. I feel that the EIS has insufficient data + information on the expected damage + loss to sea mammals, birds, + fish if activities increase. To try to gather that information later, leaves making an important decision based on guesswork.

I feel that surface-ship sonar is too damaging to sea life + also that bomb detonations are too damaging to fish. With all of the ocean's inhabitants numbers down (+ salmon off California close to zero), it is unjust to "take" or kill or maim more sea creatures.

Please accept the no action alternative.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

\*Provide your mailing address to receive future notices about the Northwest Training Range Complex EIS/OEIS.

United States Navy  
**Public Hearing Comment Form**  
 Northwest Training Range Complex  
 Environmental Impact Statement /  
 Overseas Environmental Impact Statement

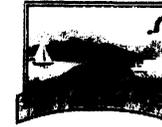


## San Juan County Council

350 Court Street No. 1  
 Friday Harbor, WA 98250  
 (360) 378-2898

District 1, Lovel Pratt  
 District 2, Rich Peterson  
 District 3, Howard Rosenfeld

District 4, Richard Fralick  
 District 5, Gene Knapp  
 District 6, Bob Myhr



March 3, 2008

Captain Gerral David  
 3730 North Charles Porter Ave  
 Oak Harbor, WA 98278-500

RE: NWTRC EIS/OEIS

Dear Captain David:

In review of the Northwest Training Range Complex Environmental Impact Statement/Overseas Environmental Impact Statement (NWTRC EIS/OEIS), the San Juan County Council would like to go on record with comments.

We understand the U.S. Navy's mission and appreciate the need for training and military readiness. Although important, we have considerable concerns regarding doubling the number of sorties as noted in the EIS/OEIS Alternative 1 and 2.

We ask that you continue to keep the flights at a higher altitude so as to minimize the impact over our local residents. Furthermore, we encourage NAS Whidbey to maintain its current policy to direct flights over water and avoid flying over our islands as much as possible.

In addition to the impacts on our residents, we are also very concerned about the stress on our biological and natural resources. The San Juan County Council has made it a priority to protect our natural resources.

We look forward to having you or a representative visit San Juan County to address our concerns and explain your future plans and policy. Please accept our invitation for further dialog on the impacts to our community.

Sincerely,

COUNTY COUNCIL  
 SAN JUAN COUNTY, WASHINGTON

Lovel Pratt, Member  
 District No. 1

Richard Peterson, Chair  
 District No. 2

Howard Rosenfeld, Member  
 District No. 3

Richard Fralick, Vice Chair  
 District No. 4

Gene Knapp, Member  
 District No. 5

Bob Myhr, Member  
 District No. 6

Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
 1101 Tautog Circle, Suite 203  
 Silverdale, WA 98315-1101  
 ATTN: Mrs. Kimberly Kler – NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: Barbara Saleeby \_\_\_\_\_

Organization/Affiliation: \_\_\_\_\_

Address:\* P.O. Box 271 \_\_\_\_\_

City, State, Zip Code: Anacortes, WA 98221 \_\_\_\_\_

Comments:

I would like to state that I am opposed to increased training flights at the NAS Whidbey in Washington. As a resident of the Skyline area in Anacortes I have noticed an increase in activity already and do not want any further flights over populated areas.

My quality of life has significantly changed with this increased activity. It is no longer just one or two nights a week, but far more frequently and LOUDER. I have called to complain but nothing has changed. One evening I even had to increase the volume on my TV to "45" in order to hear it - normally it is set somewhere around 16 - 18. Jets are going over head as I'm sitting here typing this email and it's 2:30 in the afternoon! It has been day and night lately.

The benefits of having a Navy base in this area no longer outweigh the draw backs. Perhaps you should just close the base and save some money - consolidate your efforts and fly out of another base somewhere else. I've had enough of the "Sound of Freedom".

P.S By the way your web site did not accept electronic comments the day I tried (January 27, 2009) so I get the feeling that you really don't want to hear comments from the citizens. I'm probably just wasting my time again!



# San Juan County Council

350 Court Street No. 1  
Friday Harbor, WA 98250  
(360) 378 - 2898

District 1, Lovel Pratt  
District 2, Rich Peterson  
District 3, Howard Rosenfeld

District 4, Richard Fralick  
District 5, Gene Knapp  
District 6, Bob Myhr

Stuart Sayewitz  
19364 SE Summertime Dr.  
Sandy, OR 97055  
2/16/09

April 13, 2009

Kimberly Kler  
Environmental Planner  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA. 98315-1101

Dear Ms. Kler,

The San Juan County Council would like to issue an additional, very last minute, comment on the Navy's Draft Environmental Impact Statement (DEIS).

During the night of April 7-8, high intensity sonar signals were detected by local hydrophones. These sounds were of an intensity known to be disturbing to wildlife, especially the endangered resident orca whales. We do not believe that loud pings or explosions should be permitted in the critical habitat of the southern resident orca.

While this issue may not be germane to the specifics covered in the DEIS, it does relate to whether we can continue to depend on the U. S. Navy being a good neighbor and partner in protecting our environment.

Sincerely,

COUNTY COUNCIL  
SAN JUAN COUNTY, WASHINGTON

Lovel Pratt, Member  
District No. 1

Richard Peterson, Member  
District No. 2

Howard Rosenfeld, Member  
District No. 3

Richard Fralick, Member  
District No. 4

Gene Knapp, Member  
District No. 5

Bob Myhr, Member  
District No. 6

Naval Facilities Engineering  
Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale WA 98315-1101

Dear NWTRCEIS:

I realize that you think the need for military exercises and training outweighs all other considerations. But consider this: all your military exercises are just that – mere exercises. We have no enemies, at this time, that can realistically compete against us on the seas. Any maneuvers we conduct now will most likely not be applicable when the time comes.

We are now in an age of extinction to rival the great extinctions of the past. Sea mammals are just beginning to recover from over hunting. Now we propose to put the sonic equivalent of a firing range in their front yard. Posterity will not look kindly upon us if we hasten their demise for the sake of unnecessary war games.

Let's find another way that does not include polluting the ocean with debilitating noise.

Sincerely yours,

Stuart Sayewitz

March 10, 2009

To Whom It May Concern:

I am deeply concerned about the Navy increasing its training exercises in the Puget Sound area. First off, the current report is vague and incomplete, especially in regards to the portion covering the Olympic Coast National Marine Sanctuary. There is no specific information on training activities in this area, according to the sanctuary's advisory council.

My greatest concern is for the health of the southern-resident orca population. This orca group is dwindling in number and any increase in active radar activity would be very detrimental to this tenuous group. Active sonar is known to confuse marine mammals.

The measures the Navy presently uses to mitigate this (i.e., using observers onboard to watch for nearby marine mammals) are insufficient.

Thank you.

Frank Schumann  
1150 16<sup>th</sup> Ave E.  
Seattle, WA 98112

# United States Navy Public Hearing Comment Form

Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: Joseph D. Scriven

Organization/Affiliation: Private citizen

Address: 499 Pomolita Drive

City, State, Zip Code: Ukiah, CA 95482

Comments: I am a resident of inland Mendocino County and have experienced recreational activities from Gunkle to Crescent City as a diver, angler, kayaker, tide-podder & bird watcher. I do not support Alternative 1 or Alternative 2 of the NWTRC EIS/OEIS. I think expansion of this military program is a bad decision during this time of fiscal challenge for our nation and that our tax dollars would be better spent helping the families and small businesses throughout the United States. I do support U.S. Congressman Mike Thompson. Signed J.D. Scriven

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

\*Provide your mailing address to receive future notices about the Northwest Training Range Complex EIS/OEIS.



Kaety Hildenbrand  
Sea Grant Extension Agent  
Lincoln County Extension Office  
29 SE 2<sup>nd</sup> Street, Newport, OR 97365  
T 541-574-6534 | F 541-265-3887 | E kaety.hildenbrand@oregonstate.edu



**United States Navy  
Public Hearing Comment Form  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement**

09 February 2009

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
Attn: Mrs. Kimberly Kler – NWTRC EIS

To Whom It May Concern:

I would highly recommend that in the future you reach out to the sea grant program for help in outreach about hearings, activities, etc. If you ever run into issues with user conflicts, identifying locations for testing, designing outreach/engagement programs, or other such issues relating to the coastal community, we could really be helpful in helping you design processes to collaborate with communities. We have done this with many types of folks including the towboat industry, the telecommunication industry, wave and wind energy developers, and the United States Coast Guard. While there is often a federal process outlined to inform and provide opportunities for the public to have input on ocean activities that process often falls short when it comes to actually solving issues relating to conflicting uses. If the preferred alternative is selected, I would really urge you to connect with Sea Grant to talk about how to plan a process that would include existing ocean users in identifying a site for off-limits navy testing. This type of approach could most certainly result in not only a better process, but a better product for both the Navy and for the coastal communities.

Below is a list of contacts for Sea Grant programs on the west coast.

Alaska Sea Grant: <http://seagrants.uaf.edu/> Contact person: Paula Cullenberg, [anpjc@uaa.alaska.edu](mailto:anpjc@uaa.alaska.edu)

Washington Sea Grant: <http://www.wsg.washington.edu/> Contact person: Steve Harbell, [sharbell@u.washington.edu](mailto:sharbell@u.washington.edu)

Oregon Sea Grant: <http://seagrants.oregonstate.edu/> Contact person: Kaety Hildenbrand, [Kaety.Hildenbrand@oregonstate.edu](mailto:Kaety.Hildenbrand@oregonstate.edu)

California Sea Grant: <http://www-csge.ucsd.edu/> Contact person: Carrie Pomeroy, [cmpomeroy@ucdavis.edu](mailto:cmpomeroy@ucdavis.edu)

Respectfully,

Kaety R. Hildenbrand

Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

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- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler – NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: JAMES R SEYMOUR

Organization/Affiliation: \_\_\_\_\_

Address: 2605 SW 73 AV

City, State, Zip Code: PORTLAND, OR 97225

Comments: JUST SAW IN THE OREGONIAN ABOUT

TRAINING PROGRAM I AM CONCERN OVER

SONAR USES AND NUMBER ON MISSED SIREN

THE SIZE OR NUMBER OF GUN SHELLS TWO-

I SERVE IN NAVY FROM 1956 TO 1959

ON AIR CARRIER I WAS IN A JET

SQUADRON VF 141 FLYING F-4D OUT

OF MIRAMAR NAS SAN DIEGO, CALIF

PLEASE SEND ME DRAFT REPORT, ASAP

I HOPE THEY HAVE MORE HEARING ON THIS

SOON. ONE HEARING IS HARDLY A ENOUGH!

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

James R  
Seymour Sr.  
2605 SW 73 Ave.  
Portland Or. 97225

To: Mrs. Kimberly Kler  
Naval Facilities Engineering Command NW  
Silverdale, WA

Tamara Shane  
22 Cape St Mary Rd  
Lopez WA 98261

4-10-09

Hello Kimberly,

I am writing an URGENT request to put a halt to the proposed expansion of the NW Range Complex Training Program for NAS Whidbey.

I understand that public notification of this project has been extremely inadequate, as well as an ample investigation of an EIS (Environmental impact statement). Live ammunition, marine sonar and use of chemicals are included in the proposed training practices over California, Oregon, Washington and Idaho, which will definitely have adverse effects on environment and all life. I am a thirty-one year resident of the south end of Lopez Island in San Juan County, Washington, about eight miles across the water from the NAS Whidbey base and one of the most effected areas by their current practices.

Over the years there has been ever increasing flight practices and noise levels to the degree of unbearable, not an exaggeration. Windows have been known to crack or break and the earth vibrates as though an earthquake were happening. There has also been fuel dumping and engine testing which is also intensely loud and at times doesn't begin til around 10:00 p.m. and will continue the entire night. Not only is this noise very stressful, but sleep is impossible

The navy doesn't seem to have any time constraints on when they do their training or range they can practice over. Many of their flights are at extremely low altitudes and fly straight up the middle of the island and over the school.

I am telling you my personal complaints to give you a realistic idea of the impact these practices already have on our environment—waters, marine life, air quality, plants, animals and humans. I can assure you that the proposed practices and increased use of such will have a devastating impact on all life and quality of life.

Aside from the environmental health and safety concerns, the real necessity of this extremely expensive program is much in question especially when our current financial situation is in such dire straits. I would hope that we can come up with more creative and constructive solutions to our national safety concerns rather than adding to this already very destructive and eroding world. Continuing to take actions that are polarizing will never bring harmony to this planet, and continuing to use fear as leverage for justification of these destructive practices will also NEVER bring peace. Once again I urge ~~to~~ you to take heed. Thank you for listening.

Sincerely, Tamara Shane

**United States Navy**  
**Public Hearing Comment Form**  
 Northwest Training Range Complex  
 Environmental Impact Statement /  
 Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Depositing this form at the Comment Table before you leave tonight.
- 2) Submitting your comments via the project Web site at [www.NWTRRangeComplexEIS.com](http://www.NWTRRangeComplexEIS.com)
- 3) Mailing this form to:

Naval Facilities Engineering Command Northwest  
 1101 Tautog Circle, Suite 203  
 Silverdale, WA 98315-1101  
 ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

\*Final Comment  
 see ON REVERSE SIDE

All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: John Sherman

Organization/Affiliation: Not representing any organization

Address: P.O. Box 1676 (12245 N.E. Benton St., Newport, OR.)

City, State, Zip Code: Newport, OR, 97365

Comments: Too little public notice of Newport meeting; too little time for public comments; inadequate information at that meeting about what, when, where, how and possible effects of Navy offshore training exercises.

Most importantly, the entire process of the Navy writing the EIS on its own project is seriously flawed! The Navy naturally will not find "significant impacts" (effects) of its own training exercises, it is hardly a neutral, impartial, scientifically qualified agency to judge environmental and other effects of its own project

The Environmental Impact Statement on the Training Range proposal should be prepared by a panel of appropriately qualified scientists, in particular marine scientists familiar with the ocean off the Northwest coast. That scientific panel should have NO working, contractual, or

Visit [www.NWTRRangeComplexEIS.com](http://www.NWTRRangeComplexEIS.com) for project information.

OVER →

(Comments continued)  
 funding connection with the Navy. The panel should be absolutely neutral and objective about this training project and make its findings solely on a factual and scientific basis.

This scientific panel should be funded and organized by some source other than the Navy and Defense Department?  
 The Navy's only role in Environmental Impact review and conclusions should be to provide all necessary information about the details of the proposed training exercises.

This criticism of the Navy's EIS procedure applies to all Defense Department and other Federal agency projects where the agency doing the project prepares its own evaluation, environmental and otherwise.

I urge the Naval Facilities Engineering Command NW to:  
 (1) allow adequate time for the public to review and comment on this project's EIS;

(2) provide EIS paper copies to those persons not part of the computer information network - more people than you may think;

(3) to pay serious attention to public comments and not shrug them off when they point out informed objections to various aspects of the proposed training exercises or are critical of Navy conclusions about environmental effects (impacts).

\* Finally, at the Newport public meeting I requested a paper copy of the EIS Executive Summary - not the entire EIS document - that, I assume, will provide all essential project and environmental information needed for informed comment. In particular, I hope to see the Navy's explanation about the factual and scientific basis for your environmental impact conclusions.

Thank you for the Newport hearing on this project. Your staff was helpful, if guarded, in their answers to public questions.

John Sherman

Comments ON Draft Environmental  
Impact Statement Navy Northwest  
Training Range Complex

April 6, 2009

From: John M. Sherman P.O. Box 1676 Newport, OR, 97365

My comments are limited to: Environmental effects on

marine mammals - whales, porpoises, seals and sea lions

fish - particularly to Rockfish  
and

sea birds - those in particular, which live most of their  
lives far offshore such as murres and albatross

these types of Navy training exercises:

sonar, explosives and detonations, vessel movements  
disturbance by aircraft  
and

general comments about the Navy's environmental and  
other effects assessment procedure and public notice  
and comment procedure.

1. Sonar and Other Effects on Fish

Page 3,7-37 of DEIS Volume 2 it says that (sonar) effects on fish  
"are largely unknown" there is a "dearth of empirical information...".

"The limited information available (pgs. 3,7-38) suggests that  
populations of fish are unlikely to be affected by projected  
rates and areas of military sonar use".

Given the "largely unknown" sonar effects on fish a question the  
Navy's "unlikely to be affected" conclusion. There is little or  
no factual basis for this conclusion.

pg. 3,7-6 Vol 2 states that the Oregon and North California waters  
are critical habitats for (declining), threatened Coho salmon,

Pacific salmon, coastal pelagics, Pacific Groundfish, and highly migratory  
fish species are all designated EHP species in the Navy's training  
area of concern.

(OVER)

Sonar and other effects on Fish (continued)

pg. 3,7-14 Bocaccio are seriously declining and are overfished. This  
rockfish species and some others important to Oregon's commercial fishery  
are already under stress. They are not highly mobile and tend to occupy  
limited habitats.

In addition to possible adverse sonar effects, explosives and hazardous  
materials from submarines, submarine targets, and torpedoes could be  
harmful to rockfish populations and habitats. Page 3,7-26 of Vol 2 says  
the Navy has "no reliable data" on fish behavior resulting from underwater  
explosions. Pg. 3,7-30 describes potential Navy explosions + effects as  
1) oxygenation of substrate and toxic chemicals introduced into the  
water column. Yet, the DEIS conclusion about effects on fish is  
that there will be no long term quality effects, that underwater  
explosions will be temporary and infrequent. That seems to be the  
questionable rationale for the DEIS conclusion.

2. Sonar and Other Effects on Marine Mammals

Regarding sonar effects on marine mammals this DEIS on  
Table 3,9-2 states the hearing abilities of various marine mammal  
species in KHz terms. The table does not mention sources of KHz  
data. A total of 32 such species are noted for presence, at least at  
times in the Northwest specified Navy training area (Table 3,9-1).

Navy states (page 2-9) mid-level sonar frequencies is 1 to 10 KHz.  
On page 2-12 it is stated that in general functional hearing  
of marine mammals ranges from 10 KHz to 200 KHz but Table 3,9-2  
indicates a number of species and Dall's porpoise functional  
hearing is unknown including Minke, Sei, Fin, Blue, and Gray Whales  
all present sometimes in the training area.

(MORE)

Sonar and other effects on Marine Mammals (continued) <sup>3</sup>

In the book Wild Blue, Dan Bartolotti, St. Martin's Press, 2008 on page 163 it is stated that not much is known for certain about Blue Whale sound detection but that they seem to hear very low sounds and can vocalize below 10 KHz. In general, 20 to 10 KHz may be the spectrum of Blue Whale vocalization.

Navy mid-frequency sonar of 1 to 10 KHz would seem to interfere with Blue Whale hearing-vocalization. It may also so interfere with N. Pacific Right Whales, Humpbacks, Sei, Fin, Minke and Gray Whales.

Pg. 3,9-12 of DEIS Humpback whales are found along the continental shelf break and slope and off the Oregon coast near Heceta Bank as a feeding area (and also a prime commercial fishing area).

Pg. 3,9-9 states that Blue whales feed in the southern part of the NWTRC area.

Pg. 3,9-27 says that Gray Whales hear sound as low as 0.1 KHz to 12 KHz and they are found in the area of concern.

Except for Gray Whales, all of the above noted whales are listed as Endangered, as well as Stellar sea lions and sea otters.

"Harassment" of marine mammals is prohibited by the Marine Mammal Protection Act and the Endangered Species Act (Endangered marine mammals). Harassment includes potential to injure as well as actual injury and disturbance or likelihood of disturbance to animal migration, breeding, feeding, surfacing, and sheltering.

Sonar, underwater explosives, torpedoes, missiles, and vessel movements in the vicinity of whales and other marine mammals would definitely have a "potential" to injure and a "likelihood" to disturb.

Of particular concern is the proposed new electronic signal emitter, a euphemism for a sonar station, on the Washington coast that could adversely affect offshore areas as well as in bays.

(OVER)

Sonar and Other Effects on Marine Mammals (continued) <sup>4</sup>

The public hearing informational booklet January-February 2009 admits that, "There is still much to learn about how marine mammals listen and respond to human activities" such as sonar, underwater explosions, undressed movements. That is an understatement. In fact, detection and perceived physical and behavior effects from sonar, explosions and vessel movements are essentially unknown.

Yet, this DEIS (lithely showing a lack of due concern) assumes "No significant adverse effects on marine animals"

Section 5 of this DEIS notes Navy Protection and Mitigation Measures including shipboard (and assume) aircraft lookouts to spot marine animals, satellite concentrations, and marine debris. If so found, vessel movements are adjusted to avoid close proximity to the animals and training exercises such as explosions and live ammunition firing delayed or cancelled. Sonar emissions are merely "reduced" (page 3,9-51)

These protective measures are only as good as they are put into practice. If the Navy personnel and training exercise commander always strictly follow the protective protocol harm to marine animals can be avoided or, at least, minimized. But, who can assure such strict adherence to these measures? The Navy is its own "watchdog" but who "watches the watchdog"? Commercial fishing catch regulations require shipboard National Marine Fisheries Service observers to ensure compliance with such regulations. Navy marine animal protective measures have no such requirement.

Page 5-15 describes Demolition and Ship Mine Counter (protection) Measures including a pre-training exercise survey within 30 minutes prior to exercise commencement. If marine animals are in the survey area the exercise must pause until the animal(s) leave. The same "watchdog" comment as above applies to these measures.

(MORE)

### Vessel Movement and Marine Mammals

A leading cause of injury and death to whales, particularly to slow moving Northern Right Whales and Gray Whales - the latter especially when feeding - is ship collisions with whales.

I have personally seen scores of Right and Gray whales apparently from ship sightings.

Noise from ship engines also may be a hazard to whales and porpoise species.

Vessel movement and engine noise actual or potential conflicts with marine mammal well-being and behavior receive little attention in this DEIS except to refer to the Section 5 Protective Measures and to the infrequency of vessel operations and limited number of vessels involved in training exercises. But, it takes only one vessel encountering one whale to cause death or serious injury - especially regretful if that is an Endangered species.

### Birds and Training Exercise Effects

The DEIS states that sound effects on sea birds were not studied referring to a 2003 National Marine Fisheries conclusion that sound effects are unlikely.

The DEIS states (page 3.10-21) that no evaluation of possible underwater effects on terrestrial birds was done. Nothing is said about such effects on offshore and pelagic birds much more likely to be in the vicinity of deepwater training exercises than nearshore birds. Yet, on Page 3.10-20 underwater explosions (and weapons firing) are noted as potential Navy activity stressors on seabirds. Why have offshore sea birds such as Albatross, Murres, Auklets and Tufted Puffins not been studied for underwater and weapons firing effects?

The DEIS includes the above offshore sea birds as occurring in training exercise waters (page 3.10-5).

(OVER)

As the DEIS notes in Section 3.10 seabirds are protected by the Migratory Bird Treaty Act. Also, noted is the fact that seabirds in the NWTRC Study Area, include two Endangered species - Short Tail Albatross and California Brown Pelicans - and two threatened species - Western Snowy Plover and the Marbled Murrelet.

The pelicans, snowy plover and marbled murrelet, to my knowledge, would not be in far offshore waters unless Navy training exercises will be conducted, they are nearshore birds or, in the case of snowy plover, an onshore bird.

The DEIS page 3.10-11 notes that there have been recent sightings of Short Tail Albatross in offshore waters within the Navy training exercise area, although they are most often found farther north, off Alaska and British Columbia. Being an Endangered Species, the Navy should do its utmost to avoid visual and explosive contact with Short Tail Albatross.

Noise and other effects of underwater explosions carry a long distance underwater. The 600 yards Navy explosives safety zone (DEIS pg. 3.10-17) would seem to be a minimum distance to avoid harm to diving seabirds, as well as marine mammals and sea turtles.

In fog and at night ship lights disorient sea birds and increase the chance of bird-vessel collisions. Ship lighting should be minimized where sea birds may be gathered and ship speed reduced. The DEIS makes no mention of such precautions and simply says (page 3.10-21) that there is a low potential for seabird collisions due to bird mobility and low density of Navy vessels.

Regarding Expended Materials (DEIS pages 3.10-22 and 28) such as shrapnel, small caliber ammunition, drifting balloons and plastics the latter two can be especially hazardous to birds as the DEIS

(MORE)

Birds and Expected Material Effects (continued)

acknowledges, noting that birds are known to ingest a wide variety of marine debris (and can be entangled in lines and plastic).

Regarding the No Action Alternative the DEIS says there will be minimal impact from marine debris on seabirds because of the low concentrations of such debris in the training area. There is no mention of effects on seabirds from Navy training debris of Alternatives 1 and 2. Yet Table 3.10-3 shows that Alternative 1 effects may be slightly higher (than No Action) and Alternative 2 slightly higher yet from debris ingestion-entanglement including such effects on Endangered seabirds! Yet, the DEIS mentions no extra Navy precautions taken in Alternatives 1 and 2.

NMTRC Marine Species Monitoring Plan

Part 5 of the DEIS refers to a Navy monitoring plan for marine mammals mostly that are covered by the Endangered Species Act and the Marine Mammal Protection Act so as to evaluate species abundance and distribution. Assessing potential Navy training exercise mitigation measures is a stated purpose. Rather than mitigation the DEIS should refer to avoidance measures. If training exercises are harmful to species including those endangered it is preferable to avoid harm rather than to attempt to reduce harm.

This monitoring plan is to be annually reviewed by Navy biologists. What about review and plan preparation involving non-Navy biologists and marine scientists?

Which leads to this criticism of the entire Navy training exercise Environmental Impact statement process (rather than specific parts of the Draft report).

(anon)

The Navy is judging environmental effects of its own training exercise program. The "fox guarding the henhouse" situation. Making it a certainty that the Alternative the Navy prefers will be chosen. There is no objectivity and fairness about this procedure.

A procedure combining scientific expertise with objectivity, judging the subject of this DEIS entirely on its merits with no built-in favor able bias would include, if not be entirely done by, non-Navy academic and marine science institute experts with no self-interest in the environmental effect analysis outcome would be far more reassuring to the concerned public.

Realizing that the National Marine Fisheries Service has a role in evaluating this project's environmental effects and that outside academic scientists can comment on the DEIS document, that is not as reassuring as the above suggested objective, non-Navy in-house document preparation.

A final point, again about procedure

The Navy could have held one or two more public information meetings in Oregon this past Winter and provided better meeting public notices. Too many concerned Oregonians heard about the meetings at the last minute and/or through informal means.

Thank you for the opportunity to comment on the Draft Environmental Impact Statement Navy Northwest Training Range Complex. A hope that reviewers comments will be considered in the Final EIS.

I asked at the Newport, Oregon public meeting to be placed on your mailing list (not E mail), so far no response

John Sherman

**From:** [Murray, Sheila A CIV CNRNW, N00P](#)  
**To:** "Forest Shomer";  
**Subject:** RE: Extension of Comment Period  
**Date:** Tuesday, March 10, 2009 16:46:17

---

Good afternoon Mr. Shomer. I will make sure that Kimberly Kler receives this. Thanks for taking the time to comment on the Northwest Training Complex EIS. Take care. Respectfully, Sheila Murray

Sheila Murray  
NAVMAG/Environmental Public Affairs  
1100 Hunley Rd.  
Silverdale, WA 98315  
(360)396-4981- (360)340-5398(c)

-----Original Message-----

From: Forest Shomer [<mailto:ziraat@olympus.net>]  
Sent: Tuesday, March 10, 2009 17:36  
To: Murray, Sheila A CIV CNRNW, N00P  
Subject: Re: Extension of Comment Period

from: Forest Shomer  
PO Box 639  
Port Townsend WA 98368

Please forward as necessary.

I intended a more detailed, personalized comment but there simply isn't time enough ahead of the hasty deadline. As a 40-year resident near the NAS-Whidbey air field, I have called the base hotline many times with concerns about noise of low overflights, late-night exercises, and spoken with more than one Base Commander over the years. I am also concerned with the health and survival of marine mammals that will be impacted by the proposed activities' expansion, and with pollution of our airshed in northern Puget Sound from fuel dumping, tire-burning and other activities 'exempt' under Bush Administration rules.

At a time of financial crisis our country should not be expanding these activities, but rather, scaling down to a sustainable level. LESS activity, FEWER exercises does not have to mean poorer security! Quality, not quantity. Save the strategic oil burned during these exercises, the country

will need the oil soon enough, to be sure.

The impacted population areas deserve more notification and public hearings on these issues which will affect every person in the region.

NO ACTION ALTERNATIVE, PLEASE!

-----  
I support the following:

Port Townsend Concerned Citizens

Naval Facilities Engineering Command Northwest,  
Attention: Mrs. Kimberly Kler-NWTRC EIS/OEIS,  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101.

email: [www.nwtrangecomplexeis.com](http://www.nwtrangecomplexeis.com).

I support the "no action alternative" (maintaining existing training levels) in regards to the expansions planned by the Navy for its Northwest Training Range Complex.

The readiness exercises involve the Northwest fleet -- including two aircraft carriers, 10 warships, 14 submarines, 90 support vessels and 119 aircraft based at five installations in Washington state.. Navy practice includes using high-powered and explosive sonars, missiles and munitions.

According to the Oregonian article Navy plan to increase warfare training off Oregon coast draws objections by Scott Learn & Lori Tobias "The biggest environmental concern is the Navy's use of mid-frequency active sonar, which would increase under the plan. Sonar use damages whales and other marine mammals that use sound to communicate and navigate." The training area includes waters used by nine marine mammal species listed as threatened or endangered including seven whales. Of particular concern are Puget Sound's southern resident killer whales, whose population has dwindled to about 70.

In its review, the Navy said sonar exposure contributed to five "mass stranding events" worldwide since 1996, with whales showing up dead in numbers on the beach. The review says the increased training would boost potentially harmful mammal sonar exposures from about 110,000 a year to

nearly 130,000. The Navy has rejected the idea of seasonal shutdowns or avoiding key habitat areas.

As important as training is to the Navy, we support the No Action Alternative due to the proposed testing of new weapon systems and the lack of information available to assess the impact on numerous endangered and declining marine species.

--



March 6, 2009

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler – NWTRC EIS

Dear Mrs. Kler,

The 132 Members of the Curry Section of the Sierra Club located on the Coast in Curry County Coast in Southwestern Oregon are concerned with the increased activity of the Navy in our area. Worldwide stocks of fish are decreasing at a rapid rate and anything that the Navy can do to decrease the impact on these populations would be helpful. We are also concerned that the potential damage to mammals and birds will have a significant negative impact on tourism along the coast. In addition to protecting citizens of the United States, an increased effort to protect the wildlife that feed us is important for our long-term survival. We will propose some suggestions to decrease the collateral damage to our wildlife and assure the quality of life for the residents of our coastal communities.

**1. Alternatives to live rounds**

It makes no sense for the Navy to propose larger gunnery areas off the Northwest coast. They have assumed that only a “few” fish, mammals and birds will be affected. With all the problems we have had on the West Coast with declining fish populations we believe that the acceptable amount of deaths of fish is none! The Navy already has land gunnery ranges where live rounds can be fired. With today’s simulator technology the training of operators of this equipment will get better training than they would if firing a few rounds and damaging addition fish off our coast.

Another possibility for the Navy would be to employ smart technology in target practice. Use non-explosive shells fitted out with electronic packages that could tell exactly where the round landed and feed the information back to the operator instantly. Also be sure to include flotation devices so the helicopter pilots could get practice picking up these smart

projectiles for reuse. Surely the Navy has enough creative ability to find some ways to reduce their environmental impact while keeping sailors honed for battle.

## 2. Timing and location of practice

The areas near to the coast provide great habit for more wildlife than areas in the middle of the ocean. We would propose that the area be at least 100 miles from the shore to better protect this wildlife. In addition the Navy could time the training activities to avoid whale migrations and bird migrations.

## 3. Independent Fish and Wildlife Study

We would propose that the Navy hire independent wildlife and environment experts to study these activities and make recommendations on how the Navy could reduce their impact on this crucial wildlife. A report to the general public and the Navy's response to these suggestions would go a long way to convincing the public that the Navy is reducing its environmental impact. Baring an independent report perhaps the Navy could utilize existing personnel trained in these issues to develop a report to perform the same function as explained above.

## 4. Delay and Public Education

We would suggest that the navy allow for six months delay so that they can provide more public education up and down the whole Northwest Coast and receive public input on their decisions. It seems like the Navy is just trying to ramrod this thing through with minimal public knowledge. The citizens of the Pacific Northwest deserve better.

## Summary

Environmental Impact Reports are more than just a written report to get through. They can be very useful for taking new directions. The Navy as well as all citizens of the United States must learn to live in a more environmentally friendly way. We would propose that the Navy has the talent and creativity to help making these changes and a great place to start would be decreasing as much damage to wildlife along our Northwest Coast.

Sincerely,

Al Collinet  
Chairperson  
Curry Section of the Sierra Club  
225 Alder St.  
Brookings, OR 97415



# InterTribal Sinkyone Wilderness Council

P.O. Box 1528 Ukiah, CA 95482 Phone (707) 468-9500

InterTribal Cultural Conservation for Sinkyone Indian Lands



April 13, 2009

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Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
Attn: Mrs. Kimberly Kler – NWTRC EIS

**REVISED**

Re: Proposed Expansion of the Northwest Training Range Complex

Sent via email

Dear Mrs. Kler:

The InterTribal Sinkyone Wilderness Council (Council) is an incorporated 501(c)(3) Tribal conservation organization comprised of ten Federally Recognized, Sovereign California Indian Tribes that retain and maintain important cultural ties to the coastlines of, and the ocean waters adjacent to, Mendocino and Humboldt Counties.

The Council was founded in 1986 by, and for the benefit of, its member Tribes and is charged with protecting the cultural-ecological resources that constitute the heritage of the indigenous Tribal Peoples of the historic Sinkyone Tribal territory, which is located within southern Humboldt and northern Mendocino Counties, from the coastline to the ridges parallel to and immediately east of the S. Fork and mainstem of the Eel River.

The Council's constituent Tribes are: Cahto Tribe of Laytonville Rancheria; Coyote Valley Band of Pomo Indians; Hopland Band of Pomo Indians; Pinoleville Pomo Nation; Potter Valley Tribe; Redwood Valley Band of Pomo Indians; Robinson Rancheria; Round Valley Indian Tribes (a Sovereign Nation of 7 Confederated Tribes); Scotts Valley Band of Pomo Indians; and Sherwood Valley Band of Pomo Indians. Each of these Tribes is a Sovereign Nation that maintains its own government-to-government relations with the United States of America.

The Tribes' connections to the marine resources and waters of this region are ancient and well documented, and these connections are indisputably vital to the culture, sustenance, health, and continued wellbeing of the Tribal members of this region.

The U.S. Navy's Northwest Training Range Complex contains numerous marine species, as well as anadromous species, that are culturally important to Tribal Peoples of both the coastal and the inland regions of Mendocino and Humboldt Counties. The species that would be affected by the proposed expansion of the U.S. Navy's Northwest Training Range Complex include species that are Endangered and Vulnerable.

The U.S. Navy's draft Environmental Impact Statement (EIS) for the proposed expansion of the Northwest Training Range Complex and the U.S. Navy's August 2008 Request to the National Marine Fisheries Service (NMFS) for Authorization for the Incidental Harassment of Marine Mammals, specifically include the ability to "take" 37 species of marine mammals (i.e., whales, dolphins, and seals) that could be impacted by the expansion beginning in 2010.

InterTribal Sinkyone Wilderness Council is a Nonprofit Consortium of California Indian Tribes  
• Cultural Conservation • Native Stewardship • Watershed Rehabilitation • Cultural Ecology Education

This authorization includes the "...authorization to take, by injury or mortality, up to 10 individual beaked whales..."<sup>1</sup> The U.S. Navy's request to NMFS for Authorization for the Incidental Harassment of Marine Mammals may in fact result in the "take" of more than 2 million individual sea mammals as a result of the proposed expansion.

The term "take" suggests a high probability of death for sea mammals exposed to the Naval exercises scheduled under the proposed expansion, and should be considered as nothing less than a euphemism for the U.S. Navy's authorization to KILL these sea mammals.

The Council holds fee title to and manages the 3,845-acre InterTribal Sinkyone Wilderness property, which is located adjacent to the coastal Sinkyone Wilderness State Park. The Sinkyone Wilderness area is in the extreme northern part of Mendocino County, within the portion of the Northwest Training Range Complex that apparently extends approximately 2 to 3 miles into Mendocino County. Our InterTribal Wilderness land is located at the very southernmost extent of the Complex. However, our area of geographic concern extends much farther north than the property to which we hold title. Aboriginal Sinkyone territory extends along the coastline from approximately 3 miles south of the mouth of Usal Creek in Mendocino County, thence northward to the mouth of Four Mile Creek in Humboldt County, which is located just south of the mouth of the Mattole River.

The U.S. Navy's proposed expansion would result in irreversible impacts to the many sensitive coastal resources along the entire coastline of the historic Sinkyone territory, including seaweeds, shellfish, rockfish, and a host of other animal and plant species that would be negatively affected by the proposed increase in training activities.

These coastal resources, along with the marine resources and waters, constitute a critical part of the cultural heritage and aboriginal rights of the Tribes of this region who continue to rely upon them for sustenance and ceremonial usage.

The Tribes of this region never ceded their aboriginal rights, including their rights to steward, protect, harvest, and utilize marine and coastal resources that are necessary for the preservation and the continuation of our way of life.

The U.S. Navy's proposed expansion of the Northwest Training Range Complex would infringe upon and threaten marine and coastal resources important to the Tribes and to the general population of this region. In addition, we believe the Navy has failed to adequately consult with the Tribes of Northern California, as required by law, regarding its proposed expansion.

In our opinion, the draft EIS is replete with inadequacies, contradictions, lack of reliable data, and insufficient mitigations, which together are too numerous to catalogue.

Due to the shortfalls of the Navy's proposal, the expansion is certain to cause irreparable harm to the ecological, cultural, economic, recreational, and scenic values of Mendocino and Humboldt Counties' marine and coastal areas.

The InterTribal Sinkyone Wilderness Council is adamantly opposed to the U.S. Navy's expansion of the Northwest Training Range Complex and is advocating for the No Action Alternative as outlined in the EIS.

The Navy should entirely withdraw its plans for the proposed expansion of the Northwest Training Range Complex now and henceforth. Instead, it should instead develop plans for reducing its training and testing activities within the Northwest Training Range Complex, thus contributing to the healing and revitalization of our ocean waters and all the life that they contain.

Sincerely,



Priscilla Hunter  
Chairperson

cc: President Barack Obama  
Tribes of Mendocino, Humboldt, and Del Norte Counties  
Representative Mike Thompson  
Senator Diane Feinstein  
Senator Barbara Boxer  
California Department of Parks & Recreation  
National Marine Fisheries Service  
California Coastal Commission  
State Senator Pat Wiggins  
State Assemblyman Wes Chesbro  
Mendocino County Board of Supervisors  
Humboldt County Board of Supervisors  
Del Norte County Board of Supervisors  
Humboldt Baykeeper  
Environmental Protection Information Center  
Northcoast Environmental Center

<sup>1</sup> FR Doc E9-3436, DOCID: fr18fe09-34, Department of Commerce, National Oceanic and Atmospheric Administration. Federal Register: February 18, 2009 (Volume 74, Number 31).  
From: [www.thefederalregister.com](http://www.thefederalregister.com)

March 27, 2009

ATTN: Mrs. Kimberly Kier - NWTRC EIS  
Naval Facilities Engineering Command Northwest,  
1101 Tautog Circle, Suite 203  
Silverdale, Washington 98315

Dear Mrs. Kier,

I vehemently protest the Navy's plans to kill the marine life and poison our waters, air and soil in Washington, Oregon and California.

This "taking" of marine mammals negatively impacts the entire ecology of our oceans and the life in them which feeds large numbers of people and other species around the world. Now the United States government has decided that California, Oregon, Washington, and Idaho, and the Pacific Ocean marine life in those areas, are expendable in order to test more war weapons of mass destruction. It should be noted that the list of toxic chemicals is a long one as noted in the Navy E.I.S. Depleted uranium, red and white phosphorus, and a whole host of chemicals known to be toxic not only to man, but to marine life, are being served up on the "Navy Warfare Chemical Menu" that will contaminate our air, water, and soil.

White Phosphorus is just one of the chemicals on Navy Toxic Menu: Berkowitz et al (1981), in assessing the potential hazards associated with the use of phosphorus smoke munitions, reported that White Phosphorus residues in aquatic systems can be extremely toxic. Berkowitz stated that the deposition of washout of... White Phosphorus, especially in water bodies may create exposure risks to resident finfish, invertebrates and waterfowl, even if resultant White Phosphorus concentrations are in the low ppb range. 1996)

Please do NOT do this!!!

Sincerely,

Jan Slama  
12422 E. Mansfield Ave, #79  
Spokane Valley, WA 99216

Copies to:  
President Obama  
Senator Patty Murray  
Senator Maria Cantwell  
Rep. Cathy McMorris Rogers  
State Senator Bob McCaslin  
State Representative Larry Crouse

**PETITION TO STOP THE PROPOSED NAVY WARFARE TESTING PROGRAM EXPANSION & THE KILLING OF 32 SPECIES OF MARINE MAMMALS OVER 5 YEARS IN THE PACIFIC OCEAN**

Whereas, a wide variety of marine mammals have already died due to Navy Warfare Testing of Weapons currently under way in the Hawaiian Islands, the Mariana Islands, the Pacific Ocean off the coastline of Oregon, Washington, Southern California, and where testing is now conducted in both the Pacific and Atlantic oceans;

Whereas, the Navy proposes to expand its NWT Range Complex warfare testing range to encompass more land areas in Washington, Idaho, California and the Pacific Ocean; (<http://www.nwtrangecomplexeis.com/Documents.aspx>) Navy Environmental Impact

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Whereas, the Navy will "take", harm, maim or kill approximately 2.3 million marine mammals per year over five years;

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We further demand that NOAA, the National Marine Fisheries Service, and the U.S. Department of Commerce stop any attempt by the Navy to "take", kill, maim or harm any marine mammals in the Pacific Ocean. Act Today - NOAA Public Comment Deadline is April 10, 2009. The mailbox address for providing email comments is [PR1.0848-XN876](mailto:PR1.0848-XN876)

Printed Name	Printed Address	Telephone #	Signature
LORI D. ROBERTS	44300 Gordon Ln.	707-937-4851	
JENNIFER TAYLOR	45340 Little Lake St	707-937-4591	
LYNNA MILLER	1001 Main St	707-937-0964	
Debra Dubra Jennings	Lennox 20337 Comptone	707-937-1153	
Steven Cochran	PO Box 381 Campbell	707-937-2715	

\*RETURN TO: Rosalind Peterson, Post Office Box 499, Redwood Valley, California 95476 (707) 485-7520 E-Mail: [info@callforntskwatch.com](mailto:info@callforntskwatch.com) <http://www.callforntskwatch.com>

**PETITION TO STOP THE PROPOSED NAVY WARFARE TESTING PROGRAM EXPANSION  
& THE KILLING OF 32 SPECIES OF MARINE MAMMALS OVER 5 YEARS IN THE PACIFIC OCEAN**

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Heidi Lilieberg	395 S. McPherson St.	707-964-2362	
Sudith Beaudin	POB 319 Mendocino	707-937-2021	
John DeBerge	5611 Carbert Circle	925-267-5707	
Janna Miller	60 Bell Gap Rd. Ardler, NC	708-687-3612	
MARIANNE Podesto	25 Miller Ranch Ct SAN RAFAEL	CA 94903 510 928-2624	

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Printed Name	Printed Address	Telephone #	Signature
ROY FALK	45575 S. CASPAR DR	962-9070	
Ignacio Alcalá	631 N. Meagher St	964-9076	
Miguel Garcia	P.O. Box 421	937-3521	
MARICA JUCZAK	30710 SHERWOOD RD	961-1347	
Cecilia Madonell	10579 Kelly Street	937-4560	

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Printed Name	Printed Address	FB	Telephone #	Signature
Ken Rothenberger	14201 Babcock Lane		707 964-1914	<i>Ken Rothenberger</i>
Barbara Bybee	3000 Albion H PO Albion Ca		707 937-1202	<i>Barbara Bybee</i>
LEE EDMONSON	41023 LITTLE LAKE ROAD		937-4769	<i>LEE EDMONSON</i>
JACK LACROIX	P.O. 731 MONDORINO CA		95460 937 0955	<i>JACK LACROIX</i>
CHRIS ROBERTSON	PO Box 535 Little River Ca		95466 937-5111	<i>CHRIS ROBERTSON</i>

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Printed Name	Printed Address	Telephone #	Signature
LINDA GORDON	31301 SHERWOOD FB 95969 CA	907 964 0821	<i>Linda Gordon</i>
DEVORAH JAFFEY	521 Cypress St #14 JFA Ca	707 961-1090	<i>Devorah Jaffey</i>
John Melz	27151 N. W. L. P. B. CA 95437	964-4791	<i>John Melz</i>
JAME MENDOZA	Malheur 93733	962 0845	<i>Jame Mendoza</i>
CHRIS OHL	528 Walnut St. FB	707-964-5238	<i>Chris OHL</i>

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Printed Name	Printed Address	Telephone #	Signature
<i>[Handwritten]</i>	7796L123 EP 402	JHanson, Malibu, CA	<i>[Handwritten Signature]</i>
Richard E. Redfern	3001 Albion Ridge Rd #504	707-937-4742	<i>[Handwritten Signature]</i>
Edith Truesdale	2370 Thomas Rd Garberville Ca 95542		<i>[Handwritten Signature]</i>
Allison Stumamoto	929 Warner Ln.	(707)937-1596	<i>[Handwritten Signature]</i>
MARION OMBREVEN	POB 1753 MENDOCINO	813-774	<i>[Handwritten Signature]</i>

\*RETURN TO: Rosalind Peterson, Post Office Box 499, Redwood Valley, California 95470 (707) 485-7520 E-Mail: [info@californiaskywatch.com](mailto:info@californiaskywatch.com) <http://www.californiaskywatch.com>

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Printed Name	Printed Address	Telephone #	Signature	Date
Jessica Trumbley	PO Box 397 Albion CA		<i>[Handwritten Signature]</i>	4-4-09
Jeannette Fisher	PO Box 278 Albion CA 95410		<i>[Handwritten Signature]</i>	4-4-09
J. E. PELLEY	P.O. 848 ALBION CA. 95410		<i>[Handwritten Signature]</i>	4-4-09
John Bush	P.O. Box 702 Mendocino CA 95660		<i>[Handwritten Signature]</i>	
Gray Ramsey	3101 Mission Ridge Albion CA 95410		<i>[Handwritten Signature]</i>	4-5-09
Jenna Blain	P.O. Box 537 Albion, CA 95410		<i>[Handwritten Signature]</i>	4-6-09

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Printed Name	Printed Address	Telephone #	Signature	Date
MIKE GREARLE	PO BOX #187	707-937-1267	<i>Mike Grearle</i>	4/1/09
Kamille Morgan	31400 Airport Rd	707-964-5580	<i>Kamille Morgan</i>	4/1/09
Karl Barth	30201 Simpson Ln	707-8964-3494	<i>Karl Barth</i>	4/1/09
John Curtis	28620 Chabon Rd	707-937-1861	<i>John Curtis</i>	4/1/09
JUSTIN GOK	30600 Alben Ridge	707-937-5610	<i>Justin Gok</i>	4/3/09

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Printed Name	Printed Address	Telephone #	Signature	Date
SANRA BERRIGAN	PO BOX 607 ALBION CA	707-937-0313	<i>Sandra Berrigan</i>	April 2, 2009
Michael Schupbach	Box 544 Albion CA (Unlist)		<i>Michael Schupbach</i>	2 Apr. 09
SUSAN LARKIN	Box 745 Albion CA		<i>Susan Larkin</i>	
JAMES MARTIN	P.O. Box 544 Albion, CA		<i>James Martin</i>	4-2-09
Josh Smith	FB 752 Albion CA		<i>Josh Smith</i>	

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Printed Name	Printed Address	Telephone #	Signature	Date
MIKE CHANE	29275 ALBION RIDGE	513 8648	<i>Mike Chan</i>	04-09-09
Larkin Kingsley	31022 Albion Ridge	937-2487	<i>Larkin Kingsley</i>	4-3-09
Dan Goodman	P.O. Box 94 Albion, CA	937-2508	<i>Dan Goodman</i>	4/3/09
AMBERSON WATSON	P.O. Box 239 - Nevada - CA	8771812	<i>Amberson Watson</i>	4-3-09
Joel Blockson	P.O. Box 570 Little River	937-1914	<i>Joel Blockson</i>	4-4-09

\*RETURN TO: Rosalind Peterson, Post Office Box 409, Redwood Valley, California 95470 (707) 485-7520 E-Mail: [info@californianskywatch.com](mailto:info@californianskywatch.com) <http://www.californianskywatch.com>

**PETITION TO STOP THE PROPOSED NAVY WARFARE TESTING PROGRAM EXPANSION  
& THE KILLING OF 32 SPECIES OF MARINE MAMMALS OVER 5 YEARS IN THE PACIFIC OCEAN**

Whereas, a wide variety of marine mammals have already died due to Navy Warfare Testing of Weapons currently underway in the Hawaiian Islands, the Mariana Islands, the Pacific Ocean off the coastline of Oregon, Washington, Southern California, and other areas where testing is now conducted in both the Pacific and Atlantic oceans;

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Printed Name	Printed Address	Telephone #	Signature	Date
Jessie Chapin	PO Box 292 Albion CA 95410		<i>Jessie Chapin</i>	3-31-
Larkin Kingsley	31022 Albion Ridge Road, Albion, CA 95410	707-237-5300	<i>Larkin Kingsley</i>	3/31
Angela Reynolds	PO Box 1062 Ft Bragg 95437	937-1178	<i>Angela Reynolds</i>	3/3
Patsy Taylor	P.O. Box 783 Colusa, CA 95415		<i>Patsy Taylor</i>	3/3
LA ZUMATT	PO Box 538 Little River, CA 95456		<i>La Zumatt</i>	4/1/09

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Printed Name	Printed Address	Telephone #	Signature
Phillip J. Ebert	PO Box 1392 Mendocino		<i>Phillip J. Ebert</i>
Jim Thompson	42867 E.R. Airport Rd Little River 707	9370310	<i>Jim Thompson</i>
JOEL PENNOCK	P.O. Box 347 ACRION CA.	937-5512	<i>Joel Pennock</i>

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Printed Name	Printed Address	Telephone #	Signature
Karin Yakoushkin	PO Box 5 Little River, CA 95456	707-938-4240	<i>Karin Yakoushkin</i>
Judith Kvinsland	10 Box 1066 Mendocino, CA	95460	<i>Judith Kvinsland</i>
FRANNE LEOPOLD	Box 1093 Mendocino CA	95460	<i>Frannie Leopold</i>
KAREN HARRIS	Box 270 LT 2	95460	<i>Karen Harris</i>
CARRIE LURKEN	PO Box 1265 Mendocino CA	95460	<i>Carrie Lurken</i>

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Joseph Salazar	31950 Mitchell way	9648264	<i>Joseph Salazar</i>
Brooklyn Moore	16675 Brookfield Dr FB	9642630	<i>Brooklyn Moore</i>
John Sutterby	43601 Little Lake Rd Mendocino	9376888	<i>John Sutterby</i>
Steven Jacob	3800 Altona Ridge Alburca	9375522	<i>Steven Jacob</i>
Richard Purcell	4288 Compton Ukiah, Cal	9376334	<i>Richard Purcell</i>

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Printed Name	Printed Address	Telephone #	Signature
GLENN STINSON	44660 WAKING RD MENDOCINO	-	<i>Glenn Stinson</i>
Michael C. Oliveira	44601 Garden Ln Mendocino	937-2475	<i>Michael C. Oliveira</i>
BETTY M. DEUTSCH	44260 COMPTON-UKIAH RD	937-5445	<i>Betty M. Deutsch</i>
JANE BRAEVEN	45730 Connelo Mendocino	9372648	<i>Jane Braeven</i>
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Printed Name	Printed Address	Telephone #	Signature
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Richard Janulus	5111 Little Lake Rd Mendocino 95460	707.937.4600	<i>[Signature]</i>
GEORGE STORZ	45251 CYPRESS DR MENDOCINO 95460		<i>[Signature]</i>

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Printed Name	Printed Address	Telephone #	Signature
Gary Boudesky	PO Box 907 Mendocino CA	937-4800	<i>[Signature]</i>
Zelda F. Ralston	PO Box 627 Albion, CA	707-937-2384	<i>[Signature]</i>
Pastor Lopez	PO Box 41 Mendocino	962 0845	<i>[Signature]</i>
Stacy Mora	13203 Grunt Hill Rd. NCA	530 478 1324	<i>[Signature]</i>
William Mora	13203 Grunt Hill Rd. NCA	530 478 1324	<i>[Signature]</i>

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Printed Name	Printed Address	Telephone #	Signature
CHRIS WOOD	PO Box 183 Campiche	707 972-0761	CHRIS WOOD
E. Christopher Maple	PO Box 318 Mendocino	707 937-1434	E. C. Maple
Meridiam Green	Box 1354 Mendocino	707 937-0662	Meridiam Green
Kathleen Biggie	PO Box 475 Mendocino	707-981-1693	Kathleen Biggie

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Act Today - NOAA Public Comment Deadline is April 10, 2009. (Our goal is 10,000 signed petitions.)

Printed Name	Printed Address	Telephone #	Signature	Date
Beta Sisk	33740 Albion Ridge Rd.	707 977-5703	Beta Sisk	4/10/09
Zac Cechary	16298-B Old Campiche Rd	707 964 9621	Zac Cechary	4/10/09
Carl Naveil	P.O. Box 1232 Mendocino	707 937 5198	Carl Naveil	4/10/09
NANCY DENISON	319 PENITENT WAY Ft Bragg	(707) 964-1082	Nancy Denison	4/10

RETURN TO: Rosalind Peterson, Post Office Box 499, Redwood Valley, CA 95470 (707) 485-7520  
E-Mail: [info@californiaskywatch.com](mailto:info@californiaskywatch.com) More information at: <http://www.californiaskywatch.com/>

**PETITION TO STOP THE PROPOSED NAVY WARFARE TESTING PROGRAM EXPANSION  
& THE KILLING OF 32 SPECIES OF MARINE MAMMALS OVER 5 YEARS IN THE PACIFIC OCEAN**

Whereas, a wide variety of marine mammals have already died due to Navy Warfare Testing of Weapons currently underway in the Hawaiian Islands, the Mariana Islands, the Pacific Ocean off the coastline of Oregon, Washington, Southern California, and other areas where testing is now conducted in both the Pacific and Atlantic oceans;

Whereas, the Navy proposes to expand its NWT Range Complex warfare testing range to encompass more land areas of Oregon, Washington, Idaho, California and the Pacific Ocean; (<http://www.nwtrangecomplexeis.com/Documents.aspx> Navy Environmental Impact Statement)

Whereas, many chemicals, like white phosphorus, used in this program are toxic to humans, marine mammals, all wildlife, and birds;

Whereas, the Navy has violated NEPA laws by not informing the majority of the citizens of the United States about this program;

Whereas, the Navy admits that there are severe declines in some marine mammal populations;

**Whereas, the Navy will "take", harm, maim or kill approximately 2.3 million marine mammals per year over five years;**

Whereas, the Navy will disrupt the fishing and whaling tourist industry near some of their weapons test areas in the Pacific Ocean;

Whereas, there are sensitive marine areas in the Pacific Ocean which need to be preserved and protected;

Whereas, airborne sky obscurants like toxic fog oils, red phosphorus, white phosphorus (which is toxic to both humans and marine life), and other military test chemicals can drift and contaminate ocean and land areas;

Whereas, bomb blasts in the Pacific Ocean, and sonic booms over land areas could trigger earthquakes (sonic booms have caused damage to homes in the past, in California and other states);

Therefore, we the undersigned, demand that our local, county, state and federal representatives take immediate action to stop the Navy warfare testing expansion in the Pacific Ocean, Idaho, Washington, Oregon, and California, and the "taking" of marine mammals.

Act Today-Navy E.I.S. Public Comment Deadline is April 13, 2009. <http://www.nwtrangecomplexeis.com/NtrcCommentForm.aspx>

We further demand that NOAA, the National Marine Fisheries Service, and the U.S. Department of Commerce stop any attempts by the Navy to "take", kill maim or harm any marine mammals in the Pacific Ocean.

Act Today - NOAA Public Comment Deadline is April 10, 2009. (Our goal is 10,000 signed petitions.)

Printed Name	Printed Address	Telephone #	Signature	Date
Devin Elliott	P.O. 1496 Mendocino	937-3721	<i>Devin Elliott</i>	4-8-09
Lilich Elliott	P.O. 1496 Mendocino	937-3721	<i>Lilich Elliott</i>	4-8-09
Jay R. Arnold	32399 Basin St, Briggs, CA	904-1910	<i>Jay R. Arnold</i>	4-08-09
<del>Meredith Smith</del>	<del>P.O. 1054 Mendocino, CA 95460</del>		<del><i>Meredith Smith</i></del>	<del>4-8-09</del>

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Printed Name	Printed Address	Telephone #	Signature	Date
Nikolai Sprinkling	PO Box 824 Mendocino	707-737-3483	<i>Nikolai Sprinkling</i>	04/09/09
Michelle Williams	669 62nd St Oakland, CA	94607-8107	<i>Michelle Williams</i>	4/13/09
Sandy Campbell	669 62nd St Oakland, CA	94609	<i>Sandy Campbell</i>	04/14/09
Teddy Winslow	PO Box 1821 Mendocino	CA 95460	<i>Teddy Winslow</i>	

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Act Today - NOAA Public Comment Deadline is April 10, 2009. The mailbox address for providing email comments is [PRI.0848-XN](mailto:PRI.0848-XN)

Printed Name	Printed Address	Telephone #	Signature
SUDESINA BANIK	767 GEMINI LANE	850-571-6160	<i>[Signature]</i>
SAUTAM BANIK	POSTER CITY, CA	650-571-6160	<i>[Signature]</i>
Peter Temple	P.O. Box 91 Alhambra CA	707-937-0199	<i>[Signature]</i>
Joe Peay	530 Kirkham St SF, CA	9102 415-624-4202	<i>[Signature]</i>

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Printed Name	Printed Address	Telephone #	Signature	Date
RITA CRANE	3074 Alhambra Road (ac) ALHAMBRA CA 95110	707-937-2439	<i>[Signature]</i>	07/10/09
IVAN LEVENTMAN	26301 ALBION RIDGE ROAD	95410 707-937-0231	<i>[Signature]</i>	4/10/09
<i>[Signature]</i>	120 N. McPherson Fort Bragg CA	(707) 962-0908	<i>[Signature]</i>	4/10/09

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Act Today - NOAA Public Comment Deadline is April 10, 2009. The mailbox address for providing email comments is [PR1.0648-XN87](mailto:PR1.0648-XN87)

Printed Name	Printed Address	Telephone #	Signature
Diana Silva	1409 Bumblebee Lane, Carmel Valley, NV 89460		<i>[Signature]</i>
Joselyn Taylor	117 Cedar Ave, Berkeley, Ca 94702		<i>[Signature]</i>
Marilyn Rose	44851 Raven Lane, Mendocino 7079373335		<i>[Signature]</i>
MARTIN NAKAZANI	PO Box 2484, Mendocino		<i>[Signature]</i>
DENNIS ANDREWS	41015 Littlefield Way, Mendocino 957955316		<i>[Signature]</i>

\*RETURN TO: Rosalind Peterson, Post Office Box 499, Redwood Valley, California 95470 (707) 485-7520 E-Mail: [info@californiakwatch.com](mailto:info@californiakwatch.com) (<http://www.californiakwatch.com>)

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Printed Name	Printed Address	Telephone #	Signature
Helen Abernethy	215 White Lane, Bill Tom, CA 707-723-5253		<i>[Signature]</i>
KAREN ATKINSON	PO BOX 1905 ARBON CA 95460		<i>[Signature]</i>
CHAD HARMAN	5721 N HWY 1 LITTLE RIVER CA 95456	707-937-2616	<i>[Signature]</i>
Emma Carter	5721 N HWY 1 LITTLE RIVER Ca 95456	707-937-2616	<i>[Signature]</i>
GORDON BUCK	Box 766 MENDOCINO, CA 95460	(707) 937-9101	<i>[Signature]</i>

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Printed Name	Printed Address	Telephone #	Signature	Date
Margaret CABBY	44940 Pine St, Mendocino	956 0148	<i>Margaret Cabby</i>	4/9/09
Dika Hansen	41401 Little Lake Rd, Mendocino	(530)5213983	<i>Dika Hansen</i>	4/10/09
Jan Creelius	41741 RD 16 Little River, CA 95466		<i>Jan Creelius</i>	4/9/09
Jessa Salasua	32130 Alton Ridge Rd, CA 95410		<i>Jessa Salasua</i>	04/09/09

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Printed Name	Printed Address	Telephone #	Signature	Date
Paul John Sydd	725 E. Highland St. - New Haven, CT		<i>Paul John Sydd</i>	4/10/09
Melissa Wheeler	1463 Stephenson St, Marysville, CA		<i>Melissa Wheeler</i>	4/10/09
Nathan Wheeler	1463 Stephenson St, Marysville, CA		<i>Nathan Wheeler</i>	4/10/09
Jen Bogue	1463 Stephenson St, Marysville, CA		<i>Jen Bogue</i>	4/10/09

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Printed Name	Printed Address	Telephone #	Signature	Date
Marion Wells	Box 1243, Mendocino		Marion Wells	4/10/09
Rosalind Peterson	2500 Milvia Ave, Berkeley CA 94704		Rosalind Peterson	
Evelyn Oltman	2812 Russell St, Berkeley CA 94705		Evelyn Oltman	4/10/09
Kathy Sedgwick	5211 Alhambra Dr, LA 94024		Kathy Sedgwick	4/10/09

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Printed Name	Printed Address	Telephone #	Signature	Date
Thomas C. Dodd	15091 Caspar Rd, Caspar, CA 95420	(707) 964-4598	Thomas Dodd	4-10-09
Gene Greenleaf	1412 Capri Ave, Petaluma, CA	707-373-1958	Gene Greenleaf	
Margie Greenleaf	1412 Capri Ave, Petaluma, CA	707-789-0270	Margie Greenleaf	

RETURN TO: Rosalind Peterson, Post Office Box 499, Redwood Valley, CA 95470 (707) 485-7520  
E-Mail: [info@californianskywatch.com](mailto:info@californianskywatch.com) More information at: <http://www.californianskywatch.com/>

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Printed Name	Printed Address	Telephone #	Signature	Date
Mary Ellen Myratt	43300 L. H. Brown Airport Rd	937-0741	<i>Mary Ellen Myratt</i>	4-10-09
Becky Cozy-Sherman	30721 Comptche-Ukiah Rd	937-0718	<i>Becky Cozy-Sherman</i>	4-10-09
Tiffanie Rogers	100 W. Hamlet St FB	813-8250	<i>Tiffanie Rogers</i>	4-10-09
Walt Jones	2140 N. Main St CA	9247	<i>Walt Jones</i>	4-10-09

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Printed Name	Printed Address	Telephone #	Signature
SUZANNA SEVEY	16310 old casper Rd. RB	(707) 962-0204	<i>Suzanna Sevey</i>
JOAN SEVEY	31293 Augusta	707-964-3951	<i>Joan Sevey</i>
Anthony Wells	Box 185 Mexdo	937 4454	<i>Anthony Wells</i>
LESLIE CAMPBELL	PO BOX 1296 MENDOCINO	937 5248	<i>Leslie Campbell</i>
FREDERICK J. CARTER II	41671 Comptche Ukiah Rd.		<i>Frederick J. Carter II</i>

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Printed Name	Printed Address	Telephone #	Signature	Date
MISTHA Bru Ton	43751 Little Lake Rd Mendocino	(707) 937-3611	<i>MHA</i>	4-10-09
Mark Bix	General Delivery Mendocino CA	206-465-2225	<i>Mark Bix</i>	10 April 09
BLAIR TRUMAN	Box 11694 Mendocino CA	907-961-9832	<i>Blair Truman</i>	4/10/09
Myra Beak	Box 1117 Mendocino CA	707-937-1170	<i>Myra Beak</i>	4/10/09

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Printed Name	Printed Address	Telephone #	Signature	Date
ANGIEA SPECK	Box 1391	937-1139	<i>Angiea Speck</i>	4/10
Michael Kerr	42600 Little Lake Rd.	937-3053	<i>Michael Kerr</i>	4/10
Karen English	P.O. Box 1818 Mendocino	937-3288	<i>Karen English</i>	4/10
Rosanna Wynn	PO 2434 Mendocino	937-2318	<i>Rosanna Wynn</i>	4/10

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Printed Name	Printed Address	Telephone #	Signature
Clint Stevens			<i>Clint Stevens</i>
Kaula Gano			<i>Kaula Gano</i>
Brook Barton			<i>Brook Barton</i>
Alex Belinger			<i>Alex Belinger</i>
Jessica MacLanahan			<i>Jessica MacLanahan</i>

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Printed Name	Printed Address	Telephone #	Signature
Jonathan S. Tjuts	3015 David Ave 95128	(408) 533-5497	<i>Jonathan S. Tjuts</i>
Lindsay Dyer	120 Hawthorne Way	95110 408 569 2748	<i>Lindsay Dyer</i>
Janeal Carter	2081411 Mt. Shasta, Ca	95967 530-261-1883	<i>Janeal Carter</i>
Cheryl McClelland	Ca 32 Gold Hill local pit Rd		<i>Cheryl McClelland</i>
Larissa Maple	PO Box 317 Comptche CA	95127 707-987-2886	<i>Larissa Maple</i>

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Printed Name	Printed Address	Telephone #	Signature
Carol Toranzo	PO Box 413	964-9028	<i>Carol Toranzo</i>
Arlene Reiss	PO Box 431	707-937-1111	<i>Arlene Reiss</i>
Joyce Calliford	680 1/2 Perkins Fort Bragg		<i>Joyce Calliford</i>
Marian Teno	PO Box 312		<i>Marian Teno</i>
Anneley Regan	1751 David Dr.	329-4870	<i>Anneley Regan</i>

\*RETURN TO: Rosalind Peterson, Post Office Box 499, Redwood Valley, California 95470 (707) 485-7520 E-Mail: [info@californiaskywatch.com](mailto:info@californiaskywatch.com) <http://www.californiaskywatch.com>



**PACIFIC COAST OCEAN SANCTUARY PETITION**

**TO PRESIDENT BARACK OBAMA:**  
**WHEREAS THE WEST COAST OF THE UNITED STATES OF AMERICA** finds itself the target of a US Navy training range expansion, offshore oil and gas lease sales by the Interior Department's Minerals Management Service, and Federal Energy Regulatory Commission hydrokinetic energy pilot projects;

**WHEREAS** the North-west Training Range expansion would transform our peaceful coast into a warfighting asset, bringing the conflict in South Central Asia into our front yard and cause significant and permanent disruption of fisheries and marine life, decimate our tourism economy and ruin our quiet enjoyment of the ocean;

**WHEREAS** oil and gas drilling on our outer continental shelf would create decades of acute environmental risk and permanent deterioration of the quality and integrity of the marine environment for only a few weeks of national petroleum consumption;

**WHEREAS** FERC has rushed into the business of granting hydrokinetic permits on a case by case basis with no regard for due process and

objective rulemaking, and the environmental impacts of wave buoy array deployment are unknown, and would require significant industrial development onshore which is being ignored in its permitting process;

**WHEREAS:** The cumulative impact of these projects are not considered by any of these agencies and would militarize and industrialize our coast to a vast extent in undesirable ways with which we profoundly disagree;

**WE, THE HEREIN SIGNED WEST COAST VOTERS URGENTLY INSIST YOU POSTPONE ALL THESE PROJECTS indefinitely for further study as Bush 41 postponed OCS lease sales off California in 1989.**

**FURTHER** we ask you to work with Congress to promulgate OCEAN SANCTUARY legislation to permanently protect coastal areas off California, Oregon and Washington in order to preserve for posterity significant natural characteristics such as deep ocean upwellings which provide a large portion of the nutrients on which our fisheries and planet depend.

Sign Name <i>[Signature]</i>	Area Code Telephone 707 937 096
Print Name Gail E. Daly	Mailing Address State PO Box 70 CA
e-mail address gdaly@comcast.net	City Zip Mendocino 947
Sign Name <i>[Signature]</i>	Area Code Telephone 707-937-2728
Print Name Janet Self	Mailing Address State 11021 Conley Ln CA
e-mail address najet46@hotmail.com	City Zip Mendocino CA 95
Sign Name <i>[Signature]</i>	Area Code Telephone 707 962 0351
Print Name Harlan Moore	Mailing Address State 301 Cypress CA
e-mail address	City Zip Fort Bragg 947
Sign Name <i>[Signature]</i>	Area Code Telephone 707-962-0357
Print Name Tracy Waller	Mailing Address State 301 Cypress CA
e-mail address	City Zip Fort Bragg 9543

PLEASE PRINT ONE SIDE ONLY and return with a donation to Ocean Sanctuary Alliance, P.O. Box 533, Talmage, CA 95481 by the last day of each month whether completely full or not. For information, email [greens@mendocinocountry.com](mailto:greens@mendocinocountry.com) and see [www.mendocinocountry.com/](http://www.mendocinocountry.com/)

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Printed Name	Printed Address	Telephone #	Signature
ALVARO R. TARRAO	PO Box 224		<i>Alvaro R. Tarrao</i> 9 April 2009
Jane Oros	2500 S. Mendocino P.O. Box 1889, Mendocino, Ca. 95460		<i>Jane Oros</i> 9 April 2009

\*RETURN TO: Rosalind Peterson, Post Office Box 499, Redwood Valley, California 95470 (707) 485-7520 E-Mail: [info@californiaskywatch.com](mailto:info@californiaskywatch.com) <http://www.californiaskywatch.com>

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Whereas, the Navy has violated NEPA laws by not informing the majority of the citizens of the United States about this program;

Whereas, the Navy admits that there are severe declines in some marine mammal populations;  
Whereas, the Navy will "take", harm, maim or kill approximately 2.3 million marine mammals per year over five years;

Whereas, the Navy will disrupt the fishing and whaling tourist industry near some of their weapons test areas in the Pacific Ocean;  
Whereas, there are sensitive marine areas in the Pacific Ocean which need to be preserved and protected;

Whereas, airborne sky obscurants like toxic fog oils, red phosphorus, white phosphorus (which is toxic to both humans and marine) and other military test chemicals can drift and contaminate ocean and land areas;

Whereas, bomb blasts in the Pacific Ocean, and sonic booms over land areas could trigger earthquakes (sonic booms have caused damage to homes in the past, in California and other states);

Therefore, we the undersigned, demand that our local, county, state and federal representatives take immediate action to stop the warfare testing expansion in the Pacific Ocean, Idaho, Washington, Oregon, and California, and the "taking" of marine mammals.

Act Today-Navy E.I.S. Public Comment Deadline is April 13, 2009. <http://www.nwtrangecomplexels.com/NtrcCommentForm.aspx>

We further demand that NOAA, the National Marine Fisheries Service, and the U.S. Department of Commerce stop any attempts by Navy to "take", kill maim or harm any marine mammals in the Pacific Ocean.

Act Today - NOAA Public Comment Deadline is April 10, 2009 OUR GOAL IS 10,000 SIGNED PETITIONS BY MAY 2009.

Printed Name	Printed Address	Telephone #	Signature
AGNES WOODSEY	10930 PALETTE DRIVE, MENDOCINO, CA 95460	937-2377	<i>Agnes Woodsey</i> 4-1
Holly Tannen	POB 1136 Mendocino	937-5085	<i>Holly Tannen</i> 4-
Ken Rose	PO Box 188 ELK, CA	877-1661	<i>Ken Rose</i> 4-
Jessica Curl Rose	P.O. Box 188 ELK, CA 95432	877-1662	<i>Jessica Curl Rose</i> 4-1

RETURN TO: Rosalind Peterson, P.O. Box 499, Redwood Valley, CA 95470 (707) 485-7520  
E-Mail: [info@californiaskywatch.com](mailto:info@californiaskywatch.com) More information at: <http://www.californiaskywatch.com>

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**PETITION TO STOP THE PROPOSED NAVY WARFARE TESTING PROGRAM EXPANSION  
& THE KILLING OF 32 SPECIES OF MARINE MAMMALS OVER 5 YEARS IN THE PACIFIC OCEAN**

Whereas, a wide variety of marine mammals have already died due to Navy Warfare Testing of Weapons currently underway in the Hawaiian Islands, the Mariana Islands, the Pacific Ocean off the coastline of Oregon, Washington, Southern California, and other areas where testing is now conducted in both the Pacific and Atlantic oceans;

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Printed Name	Printed Address	Telephone #	Signature
Jasper Hodges	373 Cypress St Fort Bragg CA 95437	964-4288	Jasper Hodges
M. Corinne Gordon	43140 Little River Airport Rd CA 95456	707-937-3449	M. Corinne Gordon
Ambert Cullford	373 Cypress St Fort Bragg CA 95437	(707) 964-4288	Ambert Cullford
Gina Fernandez	PO Box 2474 Mendocino CA 95437		Gina Fernandez
John Wozniak	04 of a military Ridge Greenwood UT		John Wozniak

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Printed Name	Printed Address	Telephone #	Signature
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Allegro D'Albert	Same	671-6147	Allegro D'Albert
John Wozniak	Box 1750 Mendocino	962-0932	John Wozniak
Kelly Brodeteky	PO Box 904 Mendocino	937-4800	Kelly Brodeteky

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Act Today - NOAA Public Comment Deadline is April 10, 2009. The mailbox address for providing email comments is [PR1.064](mailto:PR1.064)

Printed Name	Printed Address	Telephone #	Signature
JUDY WATT	192-14th Ave SE		<i>Judy Watt</i>
Joe Watt	192 19th Ave SE		<i>Joe Watt</i>
BOB STOKIN	8076 Sonoma Hwy SE		<i>Bob Stokin</i>
Laura Stokin	8095 Sonoma Hwy SE		<i>Laura Stokin</i>
Joan Ellis	105 Oak Terrace Ct FB		<i>Joan Ellis</i>

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Printed Name	Printed Address	Telephone #	Signature
JUDY RITTER	22161 Burrows Ranch Rd	707 961-0290	<i>Judy Ritter</i>
Melissa Asakawa	10200 Woodside Pk		<i>Melissa Asakawa</i>
ROBBIE ROBINSON	33831 NAVAHO NITE RD	ACBUN 927-4120	<i>Robbie Robinson</i>
HARRIET BYE	311 21 Middle Ridge Rd	937-0078	<i>Harriet Bye</i>
Steve Antler	39475 Compton - White Rd	15460	<i>Steve Antler</i>

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Printed Name	Printed Address	Telephone #	Signature
Richard Stansfield	PO Box 1673 Terrace BC	(707) 914-1910	<i>[Signature]</i>
Sylvia Arnold	311 Walnut St. Dept 18	(707) 914-1910	<i>[Signature]</i>
Debra Peck	PO Box 1589 Rossland BC	250-362-5500	<i>[Signature]</i>
Brian Austin	64 Canal St	530-621-959	<i>[Signature]</i>
Cory Peck	Box 1591 Rossland, BC, Canada	(250) 562-5560	<i>[Signature]</i>

\*RETURN TO: Rosalind Peterson, Post Office Box 499, Redwood Valley, California 95470 (707) 485-7520 E-Mail: [info@californiaskwatch.com](mailto:info@californiaskwatch.com) <http://www.californiaskwatch.com>

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Printed Name	Printed Address	Telephone #	Signature
Amber Pennock	8150 N HWY 1 Little River	951-5537	<i>[Signature]</i>
Pat Oles		207-684-9891	<i>[Signature]</i>
Patricia M. Mendenhall	PO Box 1237 Mendocino		<i>[Signature]</i>

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Printed Name	Printed Address	Telephone #	Signature
Willie Boyce	PO-Box 1195		Willie Boyce
Barbara Matheson	PO Box 377 LR		Barbara Matheson
Adam Laflin	Fort Bragg		Adam Laflin
Dana Hawkins	Comptche		Dana Hawkins
Joseph Seidell	PO Box 255 L. The River CA	0451431	Joseph Seidell

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Shari L Eitel	311 S Walnut St #8	962-0255	Shari L Eitel
JAN HARRISON	PO BOX 701 FS		JAN HARRISON
Paul M. Ky	PO Box 223456	605-517-2052	Paul M. Ky
Ben matter	PO Box 580		Ben matter

\*RETURN TO: Rosalind Peterson, Post Office Box 499, Redwood Valley, California 95470 (707) 485-7520 E-Mail: [info@californianskywatch.com](mailto:info@californianskywatch.com) <http://www.californianskywatch.com>

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Printed Name	Printed Address	Telephone #	Signature
Benjamin Antibus	PO Box 464 Alhira CA		Ben Antibus
Grace Seidell	PO Box 255 Little River CA		Grace Seidell
Howard Seidell	PO Box 255 Little River CA		Howard Seidell
David Seidell	PO Box 255 Little River		David Seidell
Lori Squillac	PO Box 1696 Mendocino		Lori Squillac

\*RETURN TO: Rosalind Peterson, Post Office Box 499, Redwood Valley, California 95470 (707) 485-7520 E-Mail: [info@californiaskywatch.com](mailto:info@californiaskywatch.com) <http://www.californiaskywatch.com>

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Whereas, a wide variety of marine mammals have already died due to Navy Warfare Testing of Weapons currently unde Hawaiian Islands, the Mariana Islands, the Pacific Ocean off the coastline of Oregon, Washington, Southern California, and where testing is now conducted in both the Pacific and Atlantic oceans;

Whereas, the Navy proposes to expand its NWT Range Complex warfare testing range to encompass more land areas Washington, Idaho, California and the Pacific Ocean; (<http://www.nwtrangecomplexels.com/Documents.aspx> Navy Environmental Impact

Whereas, many chemicals, like depleted uranium, used in this program are toxic to humans, marine mammals, all wildlife, and Whereas, the Navy has violated NEPA laws by not informing the majority of the citizens of the United States about this program;

Whereas, the Navy admits that there are severe declines in some marine mammal populations;  
Whereas, the Navy will "take", harm, maim or kill approximately 2.3 million marine mammals per year over five years;

Whereas, the Navy will disrupt the fishing and whaling tourist industry near some of their weapons test areas in the Pacific Oc Whereas, there are sensitive marine areas in the Pacific Ocean which need to be preserved and protected;

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Whereas, bomb blasts in the Pacific Ocean, and sonic booms over land areas could trigger earthquakes (sonic booms h damage to homes in the past, in California and other states);

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We further demand that NOAA, the National Marine Fisheries Service, and the U.S. Department of Commerce stop any atten Navy to "take", kill maim or harm any marine mammals in the Pacific Ocean. Act Today - NOAA Public Comment Deadline is April 10, 2009. The mailbox address for providing email comments is [PR1.0648-XN87@noaa.gov](mailto:PR1.0648-XN87@noaa.gov)

Printed Name	Printed Address	Telephone #	Signature
Jacques Schiller	20628	707 964-3040	Jacques Schiller
Patricia Spencer	8951 N Highway 1	707 257-1723	Patricia Spencer
Mike Carthen	750 Sycamore Hill Rd #112 (A9209)		Mike Carthen
KATHRYN RYE	P.O. Box 265 Mendocino	964-9636	KATHRYN RYE
THEY SA JONES	PO BOX 1543 Mendocino		THEY SA JONES

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Act Today - NOAA Public Comment Deadline is April 10, 2009. OUR GOAL IS 10,000 SIGNED PETITIONS BY MAY

Printed Name	Printed Address	Telephone #	Signature
SHARON BARANOFSKY	P.O. Box 1695 Mendocino CA	(707) 937-2096	<i>Sharon Baranofsky</i>
Mitchell Zucker	P.O. Box 1695 Mendocino CA	(707) 937-2096	<i>Mitchell Zucker</i>
CAROL SOTH	PO Box 1379 MENDOCINO, CA	(530) 604-6883	<i>Carol SOTH</i>

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 E-Mail: [info@californiaskywatch.com](mailto:info@californiaskywatch.com) More information at: <http://www.californiaskywatch.com>

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Whereas, the Navy proposes to expand its NWT Range Complex warfare testing range to encompass more land areas of Oregon, Washington, Idaho, California and the Pacific Ocean; (<http://www.nwtrangecomplexeis.com/Documents.aspx?NavyEnvironmentalImpactStatement>)

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Gabriel Sid Yanez	3310 Pudding Creek Rd	707-961-0688	<i>Gabriel Sid Yanez</i>	4/14/09
Roscoe Wesley Frost	25234 Robinson Rd	707-292-9949	<i>Roscoe Wesley Frost</i>	4-4-09
Alejandro Cruz Yanez	31310 Pudding Creek Rd	707-961-0688	<i>Alejandro Cruz Yanez</i>	4-4-09

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Printed Name	Printed Address	Telephone #	Signature	Date
Sarah Fisher	820 Burley Close Edmonton AB Canada		<i>Sarah Fisher</i>	4/1
Ben Fisher	820 Burley Close Edmonton AB Canada		<i>Ben Fisher</i>	4/1
Sandra Green	820 Burley Close		<i>Sandra Green</i>	4/1
Angela Liebenberg	21851 N. Petaluma Ave Fort Bragg 95437		<i>Angela Liebenberg</i>	4/1
Beth Ann Taylor	42280 Comptche-Wick Rd, Mendocino, CA 95460		<i>Beth Ann Taylor</i>	4/1

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Printed Name	Printed Address	Telephone #	Signature	Date
LINN TURNER	P.O. Box 1240	707 937-4430	<i>Linn Turner</i>	3/28
JOANNA COHEN	P.O. Box 1240	707 937-2309	<i>Joanna Cohen</i>	3/28
Kristina Lekley	P.O. Box 243	937-3708	<i>Kristina Lekley</i>	3/28
Eva Hallik	13643 CARRY CREEK RD. CHICO, CA 95945 530-534-2082		<i>Eva Hallik</i>	3/28
SHERIL QUAMMEN	13643 CARRY CREEK RD (530) 534-3662		<i>Sheril Quammen</i>	03/28

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Printed Name	Printed Address	Telephone #	Signature
Paul Borden	4 Warwick Ct. Lafayette CA		<i>Paul Borden</i>
Mary Chandler	4 Warwick Ct. Lafayette CA		<i>Mary Chandler</i>
LAVELLE KENT	131 E. Redwood Ave. Apt 206, Redwood Valley, CA 95470		<i>Lavelle Kent</i>
Travis Gage	1700 Redwood Springs, Fort Bragg CA 95431		<i>Travis Gage</i>
B. W. Fisher	820 Burkley Clove, Edmondston AB Canada		<i>B. W. Fisher</i>

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Printed Name	Printed Address	Telephone #	Signature
Ken Rothenberg	19201 Babcock Lane EB	707 964-1914	<i>Ken Rothenberg</i>
Barbara Bybee	3000 Albion H RD Albion CA	707 937-1202	<i>Barbara Bybee</i>
LEE EDMUNSON	41023 LITTLE LAKE RD MENDOTA	937 4369	<i>LEE EDMUNSON</i>
JACK CAROTHER	P.O. 731 MONROVIA CA	95460	<i>JACK CAROTHER</i>
Cheris ROBERTSON	PO Box 535 Little River CA	95456	<i>Cheris ROBERTSON</i>

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Printed Name	Printed Address	Telephone #	Signature
LINDA GORDON	31301 SHERWOOD FB RD CA	907 964 0821	<i>Linda Gordon</i>
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CHRIS OHL	528 Walnut St. FB	707 964 5238	<i>Chris Ohl</i>

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Printed Name	Printed Address	Telephone #	Signature
<i>Ann Marie</i>	707 964 1030	FB 402	<i>Ann Marie</i>
Richard E. Redfern	3001 Albion Ridge Rd H South	707-937-4742	<i>Richard E. Redfern</i>
Edith Truesdale	2370 Thomas Rd Garberville Ca	95542	<i>Edith Truesdale</i>
Allison Shumato	9929 Warner Ln.	(707) 937-1596	<i>Allison Shumato</i>
MARKEN PATTERSON	POB 1753 MENDOCINO	813-7747	<i>Marken Patterson</i>

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Printed Name	Printed Address	Telephone #	Signature	Date
Jessica Trombley	PO Box 397 Albion CA			4-4-09
Karenelle Fisher	PO Box 278 Albion CA 95410			4-4-09
J.E. PELLEY	P.O. 898 ALBION CA. 95410			4-4-09
Bob Bush	P.O. Box 702 Mendocino CA 95760			4-4-09
Gary Farney	3101 Miranda Pkwy Albion CA 95410			4-5-09
Jenna Blahn	P.O. Box 537 Albion, CA 95410			4-6-09

\*RETURN TO: Rosalind Peterson, Post Office Box 499, Redwood Valley, California 95470 (707) 485-7520 E-Mail: [info@californiaskywatch.com](mailto:info@californiaskywatch.com) <http://www.californiaskywatch.com>

**PETITION TO STOP THE PROPOSED NAVY WARFARE TESTING PROGRAM EXPANSION  
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MIKE GEARLE	PO Box # 187	707-937-1267		4/11/09
Kamille Magnoni	31400 Airport Rd	707-964-5580		4/11/09
Karl Barth	30201 Simpson Ln	707-8964-3494		4/11/09
John Curtis	28620 Cabarras Rd	707-937-1881		4/11/09
Justin Cook	30600 Albion Ridge	707-937-5610		4/9/09

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Printed Name	Printed Address	Telephone #	Signature	Date
SANRA BERRIGAN	PO BOX 607 ALBION CA	707-937-0313	<i>Sanra Berrigan</i>	April 9, 2009
Michael Schepbach	Box 544 Albion CA (Unlist)		<i>Michael Schepbach</i>	2 Apr. 09
SUSAN LARKIN	Box 745 Albion CA		<i>Susan Larkin</i>	4-2-09
JAMES MARTIN	P.O. Box 544 Albion, CA		<i>James Martin</i>	4-2-09
Deak Smith	FB 732 Albion CA		<i>Deak Smith</i>	

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Printed Name	Printed Address	Telephone #	Signature	Date
JERRY L. FRANK	30900 Albion Road		<i>Jerry Frank</i>	4/1/09
Matthew Coleman	PO Box 174 Albion CA 95410		<i>Matthew Coleman</i>	4/1/09
Laurie York	PO Box 163 Albion CA 95410		<i>Laurie York</i>	4/1/09
DAVID STUMT	Box 173 Albion, CA 95410		<i>David Stumt</i>	4/2/09
Zelda F. Raiston	P.O. Box 627 Albion, CA 95410		<i>Zelda F. Raiston</i>	4/2/09

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Printed Name	Printed Address	Telephone #	Signature	Date
Jessie Chapin	PO Box 298 Albion, CA 95410		Jessie Chapin	3-31-
Larkin Kingsley	31072 Albion Ridge Road, Albion, CA 95410	937-2487	Larkin Kingsley	3/31
Don Goodman	PO Box 94 Albion, CA	937-2508	Don Goodman	4-3-09
Bob Taylor	PO Box 783 Palo Alto, CA 95415		Bob Taylor	3/3
Ta'umata	PO Box 538 Little River, CA 95456		Ta'umata	4/1/09

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Printed Name	Printed Address	Telephone #	Signature	Date
MIKE CHANE	29275 ALBION RIDGE	513 8648	MIKE CHANE	04-09-09
Larkin Kingsley	31072 Albion Ridge	937-2487	Larkin Kingsley	4-3-09
Don Goodman	PO Box 94 Albion, CA	937-2508	Don Goodman	4-3-09
MARSSON WATSON	PO Box 739 - Ukiah - CA	8771812	MARSSON WATSON	4-3-09
Joel Blockson	PO Box 570 Little River	937-1914	Joel Blockson	4-4-09

\*RETURN TO: Rosalind Peterson, Post Office Box 499, Redwood Valley, California 95470 (707) 485-7520 E-Mail: [info@californianskywatch.com](mailto:info@californianskywatch.com) <http://www.californianskywatch.com>

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**PETITION TO STOP THE PROPOSED NAVY WARFARE TESTING PROGRAM EXPANSION & THE KILLING OF 32 SPECIES OF MARINE MAMMALS OVER 5 YEARS IN THE PACIFIC OCEAN**

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Printed Name	Printed Address	Telephone #	Signature
Phillip J. Ebert	PO Box 1392 Mendocino		<i>Phillip J. Ebert</i>
Jim Thompson	4267 E.R. Airport Rd Little R. 9370310	707	<i>Jim Thompson</i>
JOEL PENNOCK	P.O. Box 347 ACBUN CA.	937-5512	<i>Joel Pennock</i>

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Printed Name	Printed Address	Telephone #	Signature
ROY FALK	45575 S. CASPAR DR	962-9070	<i>Roy Falk</i>
Ignacio Alcalá	631 N. Meagher St	964-9076	<i>Ignacio Alcalá</i>
Miguel Garcia	P.O. Box 421	937-3921	<i>Miguel Garcia</i>
Monica Jurezinski	30710 Glenwood Rd	961-1347	<i>Monica Jurezinski</i>
Cecilia Madonell	10579 Kelly Street	937-4560	<i>Cecilia Madonell</i>

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Printed Name	Printed Address	Telephone #	Signature
LORI D. ROBERTS	44300 Gordon Ln.	707-937-4851	<i>Lori D. Roberts</i>
JENNIFER TAYLOR	45340 Little Lake St	707-937-4591	<i>Jennifer Taylor</i>
Lynn A Miller	1001 Main St	707-937-0964	<i>Lynn A Miller</i>
Debra Quinn	Leannol 20337 Compton	707-937-1153	<i>Debra Quinn</i>
Susan Cohen	PO Box 381 Carleton	707-832-2715	<i>Susan Cohen</i>

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Judith Berendson	POB 319 Menocoma	707-937-2021	<i>Judith Berendson</i>
John DeBerge	5611 Corbett Circle #202	707-570-7192	<i>John DeBerge</i>
Janna Miller	60 Bell Gap Rd. Anden, NC	707-878-6873	<i>Janna Miller</i>
Marianna Podesta	25 Miller Ranch Ct. SAN RAFAEL	415-4903-5102	<i>Marianna Podesta</i>

\*RETURN TO: Rosalind Peterson, Post Office Box 499, Redwood Valley, California 95470 (707) 485-7520 E-Mail: [info@californiaskywatch.com](mailto:info@californiaskywatch.com) <http://www.californiaskywatch.com>

United States Navy  
Public Hearing Comment Form  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Depositing this form at the Comment Table before you leave tonight.
- 2) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 3) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: Jimmy Smith  
Organization/Affiliation: Humboldt County Board of Supervisors  
Address: 825 5th St  
City, State, Zip Code: Eureka, Calif. 95501 707-496-2391  
Comments: I would like to request communications with the Navy before or after training flights near Cape Mendocino - Petrolia or the Mattole River

In recent years low level flights frightened livestock with resulting serious injuries. I would like contact numbers for the Navy/Public Affairs so I can communicate directly on behalf of my constituents. The same would be requested for inquiries related to commercial fishing activities.

Thank you for the opportunity to comment.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

In notice to manners etc, could you please notify the Humboldt County Board of Supervisors at the address above if Navy activities are expected in Humboldt

NAVAL FACILITIES  
ENGINEERING COMMAND  
NORTH WEST

JAN. 18, 2009

ATTN: MRS KIMBERLY KLER  
NWTRC EIS

DEAR MRS KLER :

THIS IS A RESPONSE TO YOUR REQUEST FOR PUBLIC INPUT ON THE ENVIRONMENTAL IMPACT TO NEIGHBORS AND CIVILIANS LIVING NEAR WEST COAST NAVAL FACILITIES.

WE HAVE LIVED IN THE WHIDBEY ISLAND AIR STATIONS FLIGHT PATTERN FOR OVER 20 YEARS. THE DAYS OF CATALINA TYPE SEA PLANES ARE GONE AS WELL AS ANY CALM AND QUIET. WE HAVE AIR CRAFT ACTIVITY OVER HEAD, AT ALL HOURS - DAY AND NIGHT.

THE NOISE VOLUME KEEPS GETTING LOUDER WITH THE NEWER MODEL AIRCRAFT. HAS ANY ONE DONE A DECIBEL TEST IN OUR SCHOOL/RESIDENTIAL COMMUNITIES HERE? TESTING FOR NOISE BY AIRCRAFT HAVE CLOSED DOWN OTHER NAVAL AIRCRAFT FACILITIES, 182 MIRAMAR (LONG TIME HOME OF THE BLUE ANGELS) & THE TUSTIN MARINE AIR STATION - CALIF.

MOST OF THE WEST COAST NAVAL FACILITIES WERE BUILT BEFORE OR DURING WWII. MOST HAVE UNDER GONE MAJOR UP GRADES TO ADAPT TO THE CHANGING EQUIPMENT NEEDS.

RATHER THAN UP GRADE OUT DATED FACILITIES - WHY NOT SPEND THAT MONEY ON NEW - TOP OF THE LINE FACILITIES. USE TODAY'S TECHNOLOGIES, TO CREATE A TOP OF THE LINE FACILITY, NOT IDEAS AND EQUIPMENT 70 YEARS OLD. ALSO DEVELOP SOUND REDUCTION CONTROL FOR YOUR FUTURE NEEDS AND NEIGHBOR GOOD WILL. INCREASING MILITARY ACTIVITY WILL NOT IMPROVE PUBLIC OPINION OF AIRCRAFT NOISE OR HAZARDS.

Sincerely  
Raymond C. Smith

# Nation Report

## Fighter jet hits house; 3 dead



The plane was in a neighborhood in the vicinity of the crash site, according to a report. The pilot, returning from training on the jet, was shot down by a missile.



Source: FBI THE ASSOCIATED PRESS

Medical Center San Diego with minor injuries. The pilot, described as a lieutenant in his 20s, was taken to Naval

### Guam gets ready for an invasion — by the Marines

THE U.S. MARINE CORPS is preparing for a possible invasion of Guam, a U.S. territory in the western Pacific. The Marines are currently conducting training exercises on the island, which is a key strategic location in the region. The exercises are being conducted in preparation for a potential conflict with China, which has been increasing its military presence in the area.

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### Pilot ejects safely, says he tried to avoid homes after malfunction

SAN DIEGO — It was meant to be a routine training mission: a young Marine pilot, flying a route that would take him over a residential area. But as the jet quickly flew over the homes, a malfunction occurred, and the pilot was forced to eject. The pilot, who was flying a F/A-18D Hornet, ejected safely and was later confirmed dead. The crash site is located in a residential neighborhood in San Diego.

The Marine Corps said the pilot, described as a lieutenant in his 20s, was taken to Naval Medical Center San Diego with minor injuries. The pilot, described as a lieutenant in his 20s, was taken to Naval Medical Center San Diego with minor injuries. The pilot, described as a lieutenant in his 20s, was taken to Naval Medical Center San Diego with minor injuries.

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## Across the Nation

Havelock, N.C.

### Marine pilot killed in jet crash in N.C.

A Marine fighter jet crashed Monday about a mile short of a runway at an eastern North Carolina air base, killing the pilot, a Marine Corps spokesman said.

The single-seat plane was returning to the base after a training flight when it crashed about 12:30 p.m. in an unpopulated area, Marine Corps Air Station Cherry Point spokesman Mike Barron said.

The pilot's identity was being withheld until next of kin were notified and an investigation had begun, Barron said. The AV-8B Harrier jet was assigned to Marine Attack Training Squadron 203.

Another Harrier crashed in February 1987, but the pilot was killed.

What has been the response on the part of the military to the crash? Will there be any changes in the way the aircraft is operated? Will there be any changes in the way the aircraft is maintained?



DENIS POKOT / THE ASSOCIATED PRESS

### Crash of military jet kills 3 on ground

Smoke rises from the aftermath of an intense fire ignited when a Marine F/A-18D jet crashed in a suburban San Diego neighborhood Monday. Three people were killed in one house and a fourth person was missing; two other homes and four cars were destroyed. The pilot ejected, landing in a tree nearby. He suffered minor injuries. > STORY, A4

Naval Facilities Engineering NW  
1101 Tautog Circle, Ste. 203  
Silverdale, WA 98315

Re: Training exercises off No. Calif. Coast

What responsibilities do you have to analyze your activities in terms of global warming, energy use and pollution?

Your activities, in my opinion, need to contribute to saving this planet - not destroying it as fast as Congressional dollars flow to you. To me your military activities are far less important than preserving our fishing opportunities, the diversity of our oceans.

I am concerned that with taxpayer dollars you are one of the worst offenders and care very little about taking up these burdens shared by many others.

Sincerely yours,

*S. M. Smith*  
S. M. Smith

**United States Navy**  
**Public Hearing Comment Form**  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: SHERYL SMITH  
Organization/Affiliation: Mendo. County Resource Advisory Comm.  
Address: P.O. Box 2775, 95490  
City, State, Zip Code: Willits, CA 95490  
Comments: Our coast is already compromised by humans (we are not blaming our Navy) and many species damaged (no commercial salmon fishing this season). Many residents are working hard to restore the damage in the watersheds and on the coast. The Navy's "increase in training frequency" poses further damage to areas we are working so hard to restore. We are humans, we have to do better.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

\*Provide your mailing address to receive future notices about the Northwest Training Range Complex EIS/OEIS.

32831 Park View Drive  
Fort Bragg, CA 95437  
April 10, 2009

Mrs. Kimberly Kier  
Permits Conservation and Education Division  
1101 Tautog Circle, Suite 203  
Silverdale, Washington 98315

Dear Mrs. Kier:

I am writing this letter to register my opposition to the Navy Warfare Testing program Expansion on the coast of northern California.

Historically our costal waters have been home to some of the richest and most diverse plant and animal life in the oceans of the world. In this era of declining resources and increasing risk to our planet we can not afford to put our costal ecosystem at further risk. It is short sighted and irresponsible.

As a U.S. citizen and voter I vote NO to the Navy Warfare Testing Program Expansion.

Respectfully,

Penny Spencer

United States Navy  
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Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than February 11, 2009, to be considered in the Final EIS/OEIS.

Name: BECKY SPRAITZAR

Organization/Affiliation: FOALUR

Address: 373.53 S.E. 20

City, State, Zip Code: Mk Harbor, WA 98277

Comments: WE NEED CITIZEN OVERSIGHT OF NAVY ACTIVITIES

② THERE HAVE BEEN DIFFICULTIES IN ACCESSING YOUR PROJECT WEBSITE AND SUBMITTING COMMENTS. I FEEL WE NEED AN EXTENSION OF THE PUBLIC REVIEW PERIOD.

③ THE NAVY NEEDS TO PROVIDE PUBLIC ACCESS TO NON-CLASSIFIED AMBIENT ACOUSTIC INFORMATION TO CONFIRM COMPLIANCE WITH THEIR OPERATIONS.

④ CONSIDER DOING LAND BASED ORDINANCE/WEAPONS IN NEVADA DESERT.

⑤ THE NAVY NEEDS TO THOROUGHLY AND ACCURATELY IDENTIFY ALL THE NEGATIVE ENVIRONMENTAL IMPACTS ALREADY PRESENT DUE TO NAS WHIDBEY ACTIVITIES BEFORE ADDING NEW ACTIVITIES.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

United States Navy  
Public Hearing Comment Form

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Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than March 11, 2009, to be considered in the Final EIS/OEIS.

Name: Ardis Steele (707) 360-8551

Organization/Affiliation: HBPT / GUCC

Address: 522 Donnered

City, State, Zip Code: Ukiah, CA 95482

Comments: Request a public hearing regarding the US Navy testing on the Mendocino Coast regarding the environmental impact it has on our sealife and the environment as a whole

*[Handwritten signature]*

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.



FISHERIES DEPARTMENT  
360/598-3311  
Fax 360/598-4666

**THE SUQUAMISH TRIBE**  
P.O. Box 498, Suquamish, Washington 98392

March 8, 2009

George Hart, Biologist  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle  
Keyport, WA 98345

Kimberly Kler, Environmental Planner  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Ste 203  
Silverdale, WA 98315-1101

Re: Northwest Training Range Complex Extension  
Draft Environmental Impact Statement – December 2008

Dear Mr. Hart and Ms. Kler:

This letter transmits the Suquamish Tribe's (Tribe) comments pertaining to the proposed Northwest Training Range Complex Expansion project which is located within the Tribe's Usual and Accustomed ("U & A") fishing grounds and stations. Please note that the primary portion of the document reviewed was that which pertains to the inshore area. The Tribe requests a government-to-government meeting to discuss our comments on the Draft Environmental Impact Statement (DEIS).

Ethnographic and archaeological evidence demonstrates that the Suquamish people have lived, gathered food stuffs, ceremonial and spiritual items, and hunted and fished for thousands of years in the range expansion area (personal communication, Dennis Lewarch, 2008). The 1855 Treaty of Point Elliot outlined articles of agreement between the United States and the Suquamish Tribe. Under the articles of the treaty the Tribe ceded certain areas of its aboriginal lands to the United States and reserved for its use and occupation certain lands, rights and privileges and the United States assumed fiduciary obligations, including, but not limited to, legal and fiscal responsibilities to the Tribe.

An aboriginal right retained under the Treaty includes the immemorial custom and practice to hunt, fish, and gather within the usual and accustomed grounds and stations, which was the basis of the Tribe's source of food and culture. Treaty-reserved resources situated on and off the Port Madison

1

Indian Reservation include, but are not limited to, fishery resources situated within the Suquamish Tribe's U&A fishing area. The Suquamish Tribe's U&A extends well beyond the boundaries of the Port Madison Indian. The U&A fishing places of the Tribe include marine waters of Puget Sound from the northern tip of Vashon Island to the Fraser River in Canada, including Haro and Rosario Straits, the streams draining into the western side of Puget Sound and also Hood Canal.

On February 12, 1974, U.S. District Court Judge Boldt ruled that treaty rights entitled Indian Tribes to half of the harvestable fish running in their traditional waters, a right which was later affirmed to include shellfish and other natural resources. The ruling established Washington State's federally recognized Indian Tribes as co-managers (with Washington Department of Fish and Wildlife) of fisheries resources within their U&A fishing areas. The Tribe currently enhances the Puget Sound fisheries for all—tribal, non-Indian commercial, and sports fishing—and has had strong support from groups enabling a quality enhancement fisheries program. The Tribe releases in excess of 5 million fish per year into the Puget Sound system.

Beaches are also of critical cultural significance to the Tribe as many tribal members continue commercial, ceremonial and subsistence harvesting of shellfish. As a resource co-manager, the Tribe is active in participating in the environmental review process within its U & A. The Tribe not only has the right to fish but also the right to preserve and maintain the resource. Thus, our standard for review is based on the protection and maintenance of resources as well as the Tribe's right to fish and harvest.

General and specific comments on the DEIS are provided below.

#### General Comments

This project appears to be another phase of range expansions recently proposed by the Navy. The Tribe is concerned that the Navy is piecemealing projects. For example, the outer coast expansion is adjacent to an expansion that is currently undergoing NOAA concurrence, SEPA/NEPA rules state specifically that an environmental review should not be fragmented to "avoid discussion of cumulative impacts" or to "segment and avoid present consideration of proposals and their impacts." These projects could have been combined and made the environmental review of the cumulative project impacts more visible as well as resulting in increased efficiency.

The DEIS requires additional language that addresses the Navy's intention and process by which it will address treaty fishing access and avoid impacts to treaty fishing rights as well as cultural resources. This language, under separate heading other than cultural resources (Tribal Fishing and Uses for example), should include satisfactory measures for coordination/communication to avoid impacts to treaty fishing areas and/or activities. Items requiring coordination/communication include but are not limited to schedule/location of activities and location of any structures or potential hazards. An established process (including establishment of contact persons) for coordination/communication will minimize future conflicts and possible disputes between the Tribe and the Navy concerning conflicting uses within the area and additional vessel traffic. In order for the Navy to receive Tribal concurrence on the project, the Tribe must be satisfied with the proposed

2

measures. The Keyport Range Expansion developed a communication process that seems to be working for both the Tribe and the Navy and we expect that something similar will be developed and applied to the inshore area.

There was no discussion on potential alternative sites. Were all reasonable alternatives considered? Was the range expansion sited in an area that would result in the least environmental impacts?

The Tribe requests that a baseline bathymetric survey and environmental assessment (including surface sediment sampling) be completed in the area, so that any unforeseen problems can be identified now and addressed later in the process if needed. If sediment samples have been collected, the data needs to be included in the DEIS. Periodic monitoring would give the Tribe and agencies some assurance that if there are impacts they would be identified prior to the site becoming a health hazard. There was no discussion of the anticipated total amount of materials that will be deposited on the benthic environment and how that will affect or change the bathymetry. How will the debris affect shellfish/crab/geoduck populations? How will the debris affect Tribal harvest of geoduck?

The DEIS provides a list of potential species that may occur but this does not provide specific information that will show potential adverse effects to different populations. Listed below are links to several groups that have beach seine and nearshore data for Whidbey Island:

<http://www.skagitcoop.org/index.php/research/>

[http://www.islandcountymrc.org/admiralty\\_stewardship.html](http://www.islandcountymrc.org/admiralty_stewardship.html)

[http://www.whidbeywatersheds.com/near\\_shore\\_study.html](http://www.whidbeywatersheds.com/near_shore_study.html)

<http://www.beachwatchers.wsu.edu/island/projects/index.htm>

The sonar discussion associated with assessment of both direct and indirect effects lacks detail. For example, what are the standards and requirements of various testing/training scenarios?

The underwater minefield discussion was not detailed enough. What are the environmental/bathymetric impacts (direct and indirect)?

The EIS discusses future use of new weapons systems/platforms. Unfortunately, unless those future uses can be discussed/analyzed in some fashion in this EIS, a new EIS to address these future uses should be required.

The Tribe would like to review a copy of the BA when it is completed. Subsequent to our review we reserve the opportunity to provide additional comments on the potential effects of the proposal and may request additional consultation. Additional consultation may also be requested if the use or intensity of use changes within the existing or proposed expansion area.

## Specific Comments

### Section 1.6.3 – Regulatory Agency Briefings

The Navy held a series of regulatory agency briefings between September 7 and September 27, 2007 with NOAA, NMFS, USFWS, and WDNR. Why was WDFW and the Tribe not included in these meetings? In addition to having site specific information on the proposed expansion areas WDFW and the Tribes are co-managers of the fisheries resources. Not including WDFW and the Tribes was a significant failure/gross oversight by the Navy.

### Table 3-2

Table 3-2 appears to be incomplete. Vessel movements (disturbance/collisions) do have the potential to impact water resources. Land-based training does have the potential to impact water resources, marine mammals, and birds. High explosive ordnance (land and underwater) does have the potential to impact geology and soils, water resources and marine mammals.

### 3.1.1.2 Current Requirements and Practices

The EIS states “the Navy currently monitors and will continue to monitor the condition of soils and vegetation in its operating areas.” What are the specifics of this monitoring plan?

### 3.3 Hazardous Materials

The hazardous materials section was one area where it was particularly apparent that the Navy had not completed a comprehensive unbiased, up to date literature search. Many of the citations were old, outdated and may be somewhat biased.

#### Hazardous Materials

The fate and transport discussion for both tungsten and ammonium perchlorate was erroneous and effects were not discussed. Tungsten dissolves quickly and does have the potential to migrate to groundwater - it should be noted that the Army no longer uses tungsten. Ammonium perchlorate is extremely water soluble and dissolves quickly making it very mobile.

Tungsten and cancer effects are a big issue and needs further discussion. Tungsten is no less toxic or mobile than lead ammunition, one implantation study of tungsten alloy shrapnel pellets in rats produced cancers at all sites of implantation (Kalinch et al. Embedded Weapons-Grade Tungsten Alloy Shrapnel Rapidly Induces Metastatic High-Grade Rhabdomyosarcomas in F344 Rats. Environmental Health Perspectives. Volume 113, No. 6, 2005).

Tungsten has also been potentially implicated in the significantly elevated level of childhood leukemia cases (16 cases) in Fallon, NV near Naval Air Station (NAS) Fallon and the NAS ranges (P.R. Sheppard et al. Elevated tungsten and cobalt in airborne particulates in Fallon, Nevada: Possible implications for the childhood leukemia cluster. Applied Geochemistry 21, 2006 pp.152–165.) and (A. Koutsospyros et al. 2005. A Review of tungsten: From environmental obscurity to scrutiny. Journal of Hazardous Materials 136, 2006. pp.1-19).

Many people are familiar with DOD's use of depleted uranium (DU) penetrators in armour-piercing anti-tank weapons on ranges, but DOD also uses tungsten alloy penetrators as well as DU. Levels of tungsten in soil of about 5500 mg/kg have been reported in areas where tungsten penetrators have been used on ranges (Nikolay Strigul, et.al. Effects of tungsten on environmental systems. Chemosphere, 2005.).

#### Explosives

Issues of solubility and dissolution rate are not clear. Please add additional text to clarify. The dissolution rate is more important as effects are below those of solubility. It is the dissolution rate that can enhance or suppress solubility and therefore affect bioavailability and mobility in the environment (Larson et.al. Dissolution, Sorption, and Kinetics Involved in Systems Containing Explosives, Water and Soil. Environmental Science and Technology. Vol 42, No. 3, 2008). Low solubility does not mean chemical is immobile (i.e. RDX).

TNT degrades to aminodinitrotoluene not dinitrotoluene (Patrick van Beelen et al. Reduction of the Explosive 2,4,6, - Trinitrotoluene by Enzymes from Aquatic Sediments. Environmental Toxicology and Chemistry, Vol 14, No 12, pp 2115-2123, 1995) and (Elovitz and Weber. Sediment-Mediated Reduction of 2,4,6 – Trinitrotoluene and Fate of the Resulting Aromatic amines. Environmental Science and Technology Vol 33, No 15, pp. 2617-2625, 1999). EIS discusses degradation as a result of exposure to sunlight. There is likely limited light available below a depth of 40'-50'.

The biodegradation of RDX needs clarification. Under fairly anaerobic conditions and with a large amount of excess nutrients, RDX can be biologically degraded in soil such as composting systems and in groundwater with additional nutrients such as emulsified oil substrates. If local conditions are aerobic (in groundwater for example), not anoxic or anaerobic, no significant degradation of RDX occurs.

Please clarify that blended explosives degradation and/or dissolution is slowed (usually due to binding agent – wax) however, this does mean that they will remain in the environment for a very long time (longer than without the wax binder).

#### 3.6.2 Environmental Consequences

Habitat areas were not mapped (eelgrass beds, geoduck tracts, forage fish spawning areas, etc.). How can impacts be fully assessed if this information is not included?

##### Pelagic Communities

The EIS states that pelagic species such as shrimp are abundant and have high rates of reproduction.....negligible impacts are anticipated. Please discuss the potential impacts of sonar/acoustics on growth and reproduction. The conclusion that impacts will be negligible is not supported. Brown shrimp have shown an increase in mortality and reduced reproduction as a result of sound exposure. Increases in noise can also result in an increase in metabolic rate and result in a reduction of growth/reproduction ([www.awionline.org/oceans/Noise/IONC/Docs/Weilgart\\_Biodiversity\\_2008](http://www.awionline.org/oceans/Noise/IONC/Docs/Weilgart_Biodiversity_2008)).

#### 3.6.3 Mitigation Measures

What protective measures is the Navy implementing to prevent impacts to resources? The mitigation section specifically states that there are no mitigation measures to protect plants and invertebrates. The marine mammal protection measures do not appear adequate (visual observation?).

#### 3.10 Birds

Please add text that states all of the proposed range expansion areas lie within an area defined as the Pacific Flyway. The Pacific Flyway is an important migration corridor for a variety of bird species.

Great blue herons are included in the list of birds that utilize the site however there is no text or discussion. Are there any heron rookeries in the vicinity of the range area or proposed range area (was WDFW consulted? They are on the distribution list but was there any follow up)? What about raptor nest sites other than bald eagles (peregrine falcons for example)?

#### 5.1.6 Marine Plants and Invertebrates

The Navy and the Tribe should look at potential partnering opportunities prior to testing to further investigate the response (or lack of) on marine invertebrates (shrimp and/or crab). There is also no discussion of potential impacts (turbidity, explosives, etc. on larval crab/shrimp/shellfish).

#### 5.1.7 Fish

Do the fish windows outlined concur with the beach seine data collected around Whidbey Island? In Kitsap County, the WDFW fish window was not accurate.

#### 5.1.8 Birds

Please provide the seabird survey information the Navy will be utilizing. How often? What is the protocol?

#### 5.1.9.1 Threatened and Endangered Species

How is this protective of resident killer whales? Lookouts (visual observation) and passive detection does not seem adequate protection in such a large area.

#### 5.2.1.5 Alternative Mitigation Measures Considered but Eliminated

It is not clear why non-Navy personnel cannot be considered (i.e. someone with marine mammal expertise). They do not have to be on Navy vessels. The expanse is very large and the potential for error is high.

There was no detailed rationale provided as to why the Navy could not implement seasonal suspension or reduction of sonar and explosive testing during important marine mammal, salmonid or waterfowl migration periods. Especially during times of low or no visibility.

The Navy is limited to testing within the defined range areas. It is unclear as to why avoidance of high quality habitat areas cannot be accommodated.

It is not clear why a "ramp up" could not be implemented? Implement the "ramp up" and then everyone can "go hide". That would better clear the area of potential mammals or other sensitive species. Then the activities could commence. Although it may not be effective for dolphins, it would be for Threatened and Endangered resident killer whales. It would also be safer for harbor porpoise, although not listed, they have heightened sensitivity.

The Suquamish Tribe welcomes the opportunity to work with the Navy to develop a project that satisfies your goals as well as protects Tribal resources and harvest activities. I look forward to providing additional comments as this project progresses and more information is available, and in helping coordinate a government-to-government meeting between the Navy and the Tribe. If you have questions regarding the comments above please don't hesitate to call 360-394-8447.

Sincerely,



Alison O'Sullivan  
Biologist, Environmental Program



March 10, 2009

Naval Facilities Engineering Command Northwest  
1101 Taulog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler

RE: Comments on the U.S. Navy's Northwest Training Range Complex Draft EIS

Dear Mrs. Kler,

The Olympic Peninsula Chapter (OPC) of the Surfrider Foundation has discussed the Navy's proposed expansion of the Northwest Training Range Complex and has the following comments.

The OPC does not believe that the proposed expansions of the Northwest Training Range Complex is compatible with the goals of the Olympic Coast Sanctuary and believes it threatens the integrity of the marine ecosystem for the entire Range, including human uses. The Chapter recommends that the Navy adopt the No Action Alternative.

Our chapter also submitted comments on the Keyport Range Complex and we find problem with the Navy's piecemealing of expansion projects in the Pacific Northwest. Not only is this confusing to the public, but it neglects cumulative impacts and also violates the National Environmental Policy Act. Our members are very concerned about the possibility of the Navy activities in the surf-zone causing conflict and injury to public uses and users within the surf zone. We are concerned that the anticipated increase in shipping and aircraft activities could lead to hazardous materials contamination, causing environmental impacts to recreational waters and beaches. In addition, we strongly oppose the use of Navy Sonar, which has documented ill effects on marine life. As stated above, the OPC recommends the No Action Alternative on the Navy's proposed expansion.

The OPC has also reviewed the comments submitted to the OCMS by the Sanctuary Advisory Council (dated January 30, 2009) and agree with the Council's comments regarding probable significant environmental impacts to the environment from the Navy's proposed expansion of the Northwest Training Range Complex.

Please feel free to contact me at the following numbers if you have any questions.

Sincerely,



Dave Parks, Chair  
Olympic Peninsula Chapter  
The Surfrider Foundation  
PO Box 2263  
Port Angeles WA 98362

Office: 360-417-1405 ext. 225  
Cellular: 360-480-7312

**United States Navy  
Public Hearing Comment Form  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement**



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than March 11, 2009, to be considered in the Final EIS/OEIS.

Name: Jessica Thomas

Organization/Affiliation: \_\_\_\_\_

Address: PO Box 1362

City, State, Zip Code: Fort Bragg, Ca. 95437

Comments: I am very against the Navy's

plans for the Pacific Northwest, starting  
at the Mendocino County ocean waters  
from the shore to 250 miles out Mendocino  
County (Fort Bragg, Mendocino et. especially) are  
fishing communities that a lot of the  
residents here thrive on for employment.  
We all ready have a shortage of Salmon and  
some other fish species. Also these  
plan's can endanger the whales and other  
underwater habitats.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

MIKE THOMPSON

1ST DISTRICT, CALIFORNIA

COMMITTEE ON WAYS AND MEANS

SUBCOMMITTEE ON HEALTH  
SUBCOMMITTEE ON SELECT  
REVENUE MEASURES

PERMANENT SELECT

COMMITTEE ON INTELLIGENCE

CHAIRMAN, SUBCOMMITTEE ON TERRORISM,  
HUMAN INTELLIGENCE, ANALYSIS AND  
COUNTERINTELLIGENCE

SUBCOMMITTEE ON INTELLIGENCE COMMUNITY  
MANAGEMENT



CONGRESS OF THE UNITED STATES  
HOUSE OF REPRESENTATIVES  
WASHINGTON, DC 20515

April 13, 2009

DISTRICT OFFICES:  
1040 MAIN STREET, SUITE 101  
NAPA, CA 94559  
(707) 226-9898

317 THIRD STREET, SUITE 1  
EUREKA, CA 95501  
(707) 269-9595

POST OFFICE BOX 2208  
FORT BRAGG, CA 95437  
(707) 962-0933

712 MAIN STREET, SUITE 101  
WOODLAND, CA 95695  
(530) 662-5272

CAPITOL OFFICE:  
231 CANNON HOUSE OFFICE BUILDING  
WASHINGTON, DC 20515  
(202) 225-3311

WEB: <http://mikethompson.house.gov>

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS  
VIA U.S. MAIL

Dear Mrs. Kler:

Please accept this letter as my formal comments in response to the United States Navy's Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OIS). I am also attaching the comments from both the Humboldt and Mendocino County Boards of Supervisors.

I support the overall mission of the Navy and its goals of improving the readiness of our forces and their expertise on technically-advanced equipment. On this particular matter, I also appreciate the Navy's responsiveness to my concerns and requests, as well as to those of my constituents. I do, however, have some concerns about the NWTRC proposal and the process by which it was communicated to the larger population; these specific issues are outlined below.

First and foremost, I am concerned about the increase in the usage of sonar as proposed in the NWTRC EIS/OIS and its effects on sea life. The First Congressional District of California is home to an already beleaguered commercial fishing industry, and further challenges arising from the increased use of sonar or potentially hazardous debris from exploding ordinances are unjustifiable on any grounds. While the proposal contains references to the available literature regarding how fish and marine mammals may respond to sound and pressure waves, it also notes that such data is available for only 100 of the nearly 29,000 species of fish, and that further research is still needed. Furthermore, National Oceanographic and Atmospheric Administration (NOAA) has only just begun a review of measures to reduce environmental harm from the Navy's use of mid-frequency sonar in training exercises. It is essential that NOAA prescribe measures that substantially reduce impacts on marine wildlife and habitat before the Navy expands its scope of training procedures as proposed in the NWTRC EIS/OIS. Absent the results of NOAA's review, it is difficult to conclude that the Navy has thoroughly examined and allowed for mitigation of these potentially harmful effects in the EIS/OIS.

Second, I am troubled by the lack of public notice to local elected officials representing the communities and counties within and near the NWTRC. While Navy representatives did supply my office with a list of their notification efforts, neither the Del Norte, Humboldt nor Mendocino Boards of Supervisors were included as recipients of the EIS/OIS and Public Hearing Letters. This omission constitutes a major flaw in the scoping process by the Navy during the course of the EIS/OIS for the NWTRC. It blurred the openness, transparency and full disclosure intended by the NEPA process. To achieve full disclosure and notice to the public in the future, I request that any public notices or actions taken regarding the NWTRC be provided to all local government jurisdictions affected by the training, specifically all coastal counties and cities in the First Congressional District of California.

Thank you again for your responsiveness to my requests to appear before the Mendocino Board of Supervisors. I received many reports of your professional and respectful presentation.

Sincerely,



**MIKE THOMPSON**  
Member of Congress

## Tillamook County



*Land of Cheese, Trees and Ocean Breeze*

Board of Commissioners  
Tim Josi, Mark Labhart, Charles J. Hurliman  
201 Laurel Avenue  
Tillamook, Oregon 97141  
Phone 503-842-3403  
Fax 503-842-1384  
TTY Oregon Relay Service

March 4, 2009

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle  
Suite 203  
Silverdale WA 98315-1101

Attn: Mrs. Kimberly Kler - NWTRC EIS

The Tillamook County Board of Commissioners wishes to enter its formal comments into the record regarding the Northwest Training Range Complex Draft Environmental Impact Statement.

First, we would like to say we support the Navy's strategic mission to prepare Navy personnel for deployment and homeland defense by providing realistic training environments.

We support the proposed Preferred Alternative 2 with the following additions:

1. Work with the Fisheries Departments in Washington, Oregon and California to coordinate your activities so as not to (as much as possible) overlap with limited offshore fishing seasons.

We agree with the recommendation submitted to the Board of Commissioners by the Fisherman's Advisory Committee to Tillamook (FACT). There is a potential for interference with the fishing fleets in Washington, Oregon and Northern California as they (at times) may be fishing in the same offshore waters as the training occurs in. With very limited fishing seasons (*example 12 day halibut season*) it is important that coordination occur to prevent interference both ways.

2. Designate a Navy Liaison to work with various groups in Washington, Oregon and Northern California as training progresses.

We recommend you include in Alternative 2 the designation of a Navy Liaison to work closely with fishing organizations in the three states to keep them abreast of

Naval Facilities Engineering Command Northwest  
Attn: Mrs. Kimberly Kler - NWTRC EIS  
March 4, 2009

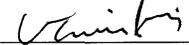
training times so they can alert their members to avoid the training areas when activity is occurring. In Oregon, OSU Sea Grant can provide you with a list of names and contact information.

3. We encourage you to use reasonable means to prevent conflicts with marine mammals, fish, sea turtles and marine invertebrates. In reading your draft plan it appears to us you are taking reasonable precautions to do so but want to make sure you understand both the environmental, political, social and economic consequences of not doing so to our communities.

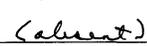
Last but definitely not least, we wish to thank the US Navy for conducting a public meeting in our community. As you can see by the turnout, our citizens care about what happens off our coastline. We thank you for your service to our citizens. We thank you for your service to protecting our shorelines and we thank you for help in keeping our world a peaceful place to live and raise a family.

Sincerely,

BOARD OF COMMISSIONERS FOR  
TILLAMOOK COUNTY, OREGON

  
Tim Josi, Chair

  
Mark Labhart, Vice Chairperson

  
Charles J. Hurliman, Commissioner

cc: Senator Ron Wyden  
Senator Jeff Merkley  
Congressman Kurt Schrader

AN EQUAL OPPORTUNITY EMPLOYER

United States Navy  
**Public Hearing Comment Form**  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

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Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below

All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: Sandra Tilles

Organization/Affiliation: \_\_\_\_\_

Address: \* POB 271

City, State, Zip Code: Whitethorn CA 95589

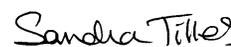
Comments: Dear Sirs,

Please do not increase military training activity off our pristine coast. Increased submarine, air, and boat traffic will adversely affect the purity of the air and water and must not be allowed. This is one of the last clean wild coastal areas in California, if not the entire west coast. There is currently a moratorium on commercial fishing in the NWT Range Complex to allow endangered native salmon to recover. War games with harmful mid-range sonar will hinder this recovery effort.

The silence and solitude of the Lost Coast and regions north is precious to the inhabitants and key to local tourism. During these hard economic times we need to nurture these real resources, not create a frightening surreal scenario. Vacationers in search of a wild landscape will not choose to visit our area if the silence was torn through with the roar of military aircraft, or the booms of offshore gun and bomb trainings. Leave us in peace, please.

I must also speak up for the health of the environment. The military is infamous for the persistent pollutants left behind on training grounds, from heavy metals to industrial chemicals to depleted uranium. We do not want to play host to polluters.

I am in favor of Alternative #1, wherein there is NO increased Navy presence in the NWT Range Complex.

Very Sincerely,  
Sandra Tilles 

Sandra Tilles

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

\*Provide your mailing address to receive future notices about the Northwest Training Range Complex EIS/OEIS.

Sheila Dawn Tracy  
Po Box 277 Compton CA 95427  
April 9<sup>th</sup> 2009

To the US Dept of NAVY  
ATTN Mrs. Kimberly Kler:

In these times of unknown future effects of global warming, it is precarious to plan harmful practices which inevitably will increase the amount of pollutants accumulating in the Pacific Ocean.

Some of the scientific evidence already in is that the reverse of global warming won't be seen until the year 3000. And that prediction is based upon a significant global reduction of CO<sub>2</sub> emissions.

Also in the March 11 2007 article of the SF Chronicle (included), it states that scientists project that "we are truly at the edge of a mass extinction of species". Also stated in the graph is that coastal settlements in almost all parts of the world and especially island populations will be most severely impacted. I believe the peoples' taxes and the Navy's energy and resources would be better spent in planning ways to mitigate the coming upheaval due to global warming than to train for a phantom war.

An article in Mother Jones magazine (Jan/Feb 2008) states that a significant part of California's pollution comes across the Pacific Ocean from China's environmental

practices. Similarly, in Essential Health (Vol 3 Ess 14) writer Carl Lowe estimates people over 50 are now carry 15 lbs of toxins in their systems.

The Navy cannot create a plan in isolation of all the scientific data known by other arms of the Gov't. All this must be factored in to get a true vision of the impact of such planning on the environment and the people who are affected by changes in air & water quality.

Our ~~ocean~~ <sup>coastal</sup> waters are a global resource. It is unacceptable to further degrade the lives of its stakeholders. Coastal residents have everything to lose by the Navy's plan. Contaminants will be absorbed by the marine life on which we and our global markets depend for food.

The Pacific Ocean needs to remain Pacific & pure. It is not like a giant wash tub that drains away all the poison. It is a precious holding tank - holding all our futures in its importance through the diversity of its marine biology.

I believe our country needs to be concerned more with self destruction from within through ill conceived and shortsight vision of our role in the biosphere than from the threat of a foreign enemy.

This plan is an escalation of the idea that physical conflict is the way to resolve differences. I believe in a higher vision of cooperation and a shared, fair and equal distribution of resources. Preservation of our mutual resource, the Pacific Ocean is our 1st priority as stewards of the earth. This is the legacy we must leave to our children & posterity. The people of Mendocino County say never more to further environmental degradation - we expect the Navy to protect our interests. Sheila Dawn Tracy



# United States Navy Public Hearing Comment Form

Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Depositing this form at the Comment Table before you leave tonight.
- 2) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 3) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: Sandy Turner

Organization/Affiliation: Mendocino Environmental Center

Address: 520 Laughlin Way

City, State, Zip Code: Redwood Valley CA 95470

Comments: *Having taught science to middle + high school students, I understand more than the average citizen just how fragile + complicated the oceans' ecosystems are. I am terribly concerned about the expansion of the Navy training activities in the Northwest Training Range complex. Because considerable evidence shows that the ocean ecosystems are in Big Trouble.*

*The U.S. Navy, as a member of the military Defense Dept., is continuing the ancient mindset <sup>that war</sup> is acceptable. That thinking is SO last century. The earth's biosphere can't tolerate much more diverse human activity. War making is one of the most environmentally toxic (and crazy) actions we impose on the earth's fragile ecosystems. There is much that we don't know about the complicated ecology, so it seems wise to reduce potentially harmful human activity as much as possible. Downsizing the Navy would be a wonderful step in a better direction.*

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

\*Provide your mailing address to receive future notices about the Northwest Training Range Complex EIS/OEIS.

## Kler, Kimberly H CIV NAVFAC NW, EV1

From: Scott Schuyler [sschuyler@UPPERSKAGIT.com]  
Sent: Wednesday, February 11, 2009 10:50 AM  
To: Kler, Kimberly H CIV NAVFAC NW, EV1  
Cc: Jim Gibson

Attachments: image001.gif



image001.gif (2 KB)

February 10, 2009

Kimberly,

I would like to submit the following comments regarding the EIS for the EOD Program based at NAS Whidbey:

The Tribe, after a preliminary review of the Addendum to U.S. Navy Biological Assessment Explosive Ordnance Disposal Operations for Puget Sound which the Navy previously provided the Tribe during a consultation meeting has made some determinations regarding the EOD Program at NAS Whidbey. First, that there are cumulative adverse effects to the Tribes treaty reserved rights as a direct result of the Navy's EOD training exercises. These adverse effects on the Tribes treaty rights would include; mortality of salmon, bottom fish, forage fish, and Dungeness Crab all of which are important species to the Tribe.

The Tribe has never been provided the opportunity to fully evaluate the effects of the EOD training on its' federally reserved rights by designing and conducting our own up to date comprehensive studies. Some of the studies that are referenced in the Addendum to the Navy Biological Assessment were conducted sixty years ago; (Aplin 1947, Fitch and Young 1948, Anonymous 1948,) and were conducted when they didn't have access to the equipment and scientific methods that meet today's standards. None of these previously conducted studies from 1945 to present has yet to evaluate the EOD effects on Treaty rights. The Upper Skagit Tribe proposed that the Navy fund such a study at a consultation meeting in December 2008 that would evaluate past, current, as well as the cumulative effects of the EOD training program on the Tribe's federally reserved treaty rights.

It should be stated that the Tribe understands the Navy's need for ongoing real training activities at NAS Whidbey and is in full support of the Navy maintaining a "state of readiness" however; the Tribe believes that the adverse effects of the EOD program on the Tribes rights can be fairly mitigated in a manner which is satisfactory to both parties and won't disrupt the Navy's current training regime. To achieve this goal the Tribe is prepared to discuss mitigation options with the Navy at any time.

I can be reached @ 360-854-7009 to discuss this issue in more detail. An official letter to follow.

Scott Schuyler  
Policy, Upper Skagit Tribe  
25944 Community Plaza Way  
Sedro Woolley WA.  
360-854-7009

**United States Navy**  
**Public Hearing Comment Form**  
Northwest Training Range Complex  
Environmental Impact Statement /  
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Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

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All comments must be received no later than March 11, 2009, to be considered in the Final EIS/OEIS.

Name: Helen L. Van Gelder & Ellen Witherite

Organization/Affiliation: \_\_\_\_\_

Address: 120 Livingston St.

City, State, Zip Code: Fort Bragg, CA 95437

Comments: \_\_\_\_\_

Please see attached letter

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

To the Naval Facilities Engineering Command NW  
1101 Tautog Circle, suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler – NWTRC EIS

March 11, 2009

Mrs. Kler:

We live in Fort Bragg on the California north coast. We oppose the navy extending its training area along our coast.

The Fort Bragg/Mendocino area is a favorite tourist destination. People who visit our area come for the beautiful ocean views, the walks along the seaside bluffs, the fresh air and the quiet. We fear that the sight of naval vessels on the ocean, the sight and sound of overhead aircraft would destroy the appeal our economy depends on.

Whale-watching is a big draw in this area. Sometimes the whales come so close you can see them swimming, their backs and their big tails emerging as they migrate through. It is a thrill to us to know that the whales are in our waters, swimming confidently to their destinations. We do not want large ships, explosions, or sonar signals disturbing them in their migrations.

Fort Bragg is a fishing port and our economy depends also on the success of our local fishing fleet. Any disruption to the natural conditions can affect our fisheries. We believe there is no way you can guarantee that naval operations will not disturb the local marine life.

This area is a center of marine biology study by many teachers and students in our colleges and schools. We want to protect this environment from influences that would disturb the delicate ecology.

We understand that the Navy proposes to comply with all the federal rules and regulations. But can they guarantee that they will have no impact whatsoever on marine life, noise levels, and visual effects?

Those of us who live here love the ocean and the ocean life; we love the unspoiled landscapes, the quiet, and the exquisite views. We love to see the whales and the shore birds, to examine the tide pools, and to watch the sunset from the ocean bluffs.

We worry that the training will negatively affect our own lives as well as the economy, the local marine life, and the calm and peacefulness of our coastline.

Please do not conduct Naval training off of our coast.

Signed:



Helen L. Van Gelder  
Ellen Witherite

cc: Congressman Mike Thompson, Fort Bragg City Council, Mendocino County Bd. of Supervisors

Comments NWTRC EIS/OEIS  
Carol Van Strum March 8, 2009  
Page 1

*Carol Van Strum*  
7493 E. Five Rivers  
Tidewater, Oregon 97390  
(541) 528-7151

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March 8, 2009

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, Washington 98315-1101  
ATTN: Mrs. Kimberly Kier – NWTRC EIS

Re: further preliminary comments on NWTRC EIS/OEIS

This letter incorporates by reference and by attachment my February 15, 2009 preliminary comments on this EIS, and my two Freedom of Information Act (FOIA) requests of February 12 and March 1, 2009, asking for materials relied upon by the Navy and crucial to any evaluation of the EIS. The Navy has so far produced not a single one of the clearly defined documents requested, not even reports cited in the EIS itself.

Because of the Navy's refusal to provide crucial records relating to the EIS, I request that the comment period be extended at least 60 days beyond the date of such records finally being provided. These comments are therefore preliminary and I reserve the right to submit further comments after the Navy has complied with the Freedom of Information Act.

The Navy's refusal to provide crucial documents strongly suggests the Navy's own lack of confidence in its EIS. As shown below, such lack of faith is amply justified; indeed, if this document reflects the Navy's competence in other areas of its job -- such as navigation, chart or map reading, basic marine research, and anticipating the outcome of naval actions -- our nation is in deadly peril of defeat through sheer incompetence.

**The Navy's refusal to provide documents requested under FOIA precludes meaningful comments on this EIS**

The Navy's refusal to comply with reasonable FOIA requests invalidates this EIS

for the following reasons.

My February 12, 2009 FOIA request asked for:

1. Documents identifying the authors, contributors, and contractors who prepared this EIS. It is impossible for the public, our elected representatives, or even the Navy itself to trust the conclusions, factual validity, or integrity of the EIS (particularly given its near-total lack of scientific references as discussed below) without knowing the identity, credentials, academic qualifications and experience of the authors.
2. All communications with governmental and outside agencies, in order to determine what, if any, objective critiques, scientific data, and advice were sought and received by the Navy;
3. Environmental Assessment(s) prepared by the Navy in accordance with Navy regulations 775.4 (d)(3) to prepare an environmental assessment in order to determine whether "preparation of an environmental impact statement is required." Obviously, such an environmental assessment would identify what activities the Navy was conducting and where and when, as well as what impacts were likely to be significant from which activities, none of which information is included in the EIS;
4. Records that would reveal where, how, and why the Navy's multiple, repeated failures of NEPA notification requirements occurred;
5. Records of the budget for this EIS, essential for both the public and our elected representatives to determine how much taxpayer money was wasted on a grossly incompetent EIS.

My March 1, 2009 FOIA request asked for the only two documents cited by the EIS in support of its conclusion of no significant impact on marine life or human health from the Navy's use and disposal of thousands of pounds per year of depleted uranium ordnance in offshore waters:

1. Hanson, W.C. 1974. Ecological Considerations of Depleted Uranium Munitions. Report LA-5559. Los Alamos Scientific Laboratory of the University of California. Los Alamos, NM. (citation Vol 2, p. 8-4 of EIS)
2. Toque, C. 2006. Marine Environmental Depleted Uranium Survey Report – Kirkcudbright Training Area – 2—4. Environmental Sciences Department, Institute of Naval Medicine. Gosport, UK. (citation Vol. 2, p. 8-5 of EIS).

As noted in my FOIA request, neither of these two studies was ever published in a peer-reviewed journal; whether they were ever published at all, in the sense of being made readily available to the public, is highly questionable. The 1974 Hanson study appears to be an unpublished report

for the Atomic Energy Commission and diligent searches of multiple academic, scientific, and government data bases have failed to find it. After I sent my FOIA request, dedicated librarians at the Hatfield Marine Science Laboratory's Guin Library managed to find a copy of the Toque 2006 study, which was done for the British Royal Navy; it is a lengthy report, consisting primarily of boiler-plate language from previous reports, but most importantly it absolutely nowhere supports the Navy EIS claim of no uptake of uranium by marine organisms. In fact, what data the report contains utterly contradict Navy claims<sup>1</sup>.

Thus, the Navy relies solely on two unpublished, non-peer-reviewed reports, one of which is unavailable and the other totally irrelevant and contradictory to EIS claims regarding an extremely toxic, extremely persistent compound being released in unrevealed quantities into our waters. The Navy's claim of no significant impact from un-measured depleted uranium releases is therefore without any foundation. For this reason alone the EIS should be withdrawn and started over, with scientifically sound, relevant, peer reviewed, publicly available research supporting any Navy conclusion.

#### **The Navy's reliance on nonexistent research invalidates EIS in its entirety**

For other metallic poisons discharged into Oregon waters, the EIS authors launch into sheer fiction, supported occasionally by what can only be called the incest school of scientific notation. For example, see text and tables revealing Navy deposits of undisclosed quantities of chromium and chromium compounds into coastal waters at pp. 3.3-7; 3.3-9; 3.3-16; 3.3-17; 3.3-19; 3.4-15; and 3.4-24 of Volume 1.

The EIS authors acknowledge that chromium compounds along with other metallic poisons will be deposited in the sea as components of "vessels, manned and unmanned aircraft, bombs, shells, missiles, sonobuoys,

<sup>1</sup> The Toque study found heavy depleted uranium contamination in soil around land-based gun emplacements, in soil under the trajectory of the ordnance, and to a lesser degree in the sea water, sediments, and organisms of the bay where the ordnance fell – not at all the same situation as ordnance fired from shipboard guns and missiles and aircraft that spew firing residues directly into the water; furthermore, the study's methodology would not pass muster for even a high school science project. For example, the entire sampling of marine organisms consisted of a bucket of mussels and three lobsters; all uranium found in the shelled, cooked mussels was attributed by legerdemain to bits of shell that *might* have remained in the meat; and the high level of uranium in one of three lobsters was discounted entirely because the *mean level* of all three lobsters was below an arbitrary level of concern (except, of course, concern to the person who might eat that third lobster, but neither the Royal Navy nor our own apparently have any level of concern whatsoever for people who eat contaminated seafood).

batteries, electronic components, and as anti-corrosion compounds coating exterior metal surfaces." The authors conclude, with no references whatsoever, that these compounds "will settle to the bottom where they will lodge in deep sediments, eventually be covered by sediment, encrusted by chemical processes (e.g., rust), or covered by marine organisms (e.g., coral)." (EIS p. 3.3-7) In a burst of scientific creativity, the authors further state that "seawater will eventually oxidize the expended training material into benign byproducts;" producing a faux reference not to a scientific paper or even to an unpublished report, but to another U.S. Navy environmental impact statement! (Vol. 2, p. 8-4: "DoN. 2008c. Draft Southern California Range Complex Environmental Impact Statement/Overseas Environmental Impact Statement.)

In contrast to the authors' remarkable portrait of benign byproducts, a brief internet search for data on chromium and the chromium compounds listed in the EIS (barium chromate and lead chromate) brings up hundreds of references, to both scientific and regulatory documents, in which the commonest phrases are:

"profoundly toxic;"

"a known carcinogen, developmental toxicant, and reproductive toxicant;"

"very persistent in water;"

"high potential for bioconcentration of chromium in aquatic organisms;"

"highly toxic to aquatic organisms and can pose serious risk to humans;"

"highly toxic, corrosive, and carcinogenic;"

"may cause cancer and/or heritable genetic damage;"

"can make fish more susceptible to infection;"

"very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment."

*Not a single one of the hundreds of references on chromium or chromium compounds includes the word "benign."* The U.S. Navy, an extensive search shows, is the only entity to apply the word "benign" to chromium or chromium compounds – and the U.S. Navy can cite *only* the U.S. Navy for its application of the word to so toxic a material. This is creative environmental

assessment at its most inventive. Creativity, however, is not a requirement of NEPA. The EIS should be withdrawn and the process started over.

***The EIS discussion of Unexploded Ordnance is so misleading as to constitute fraudulent concealment***

EIS authors acknowledge that toxins such as uranium and chromium are not just spewed into air and water by explosions of Naval guns, missiles, and bombs. They blithely note that chromium, chromium compounds, depleted uranium, and other hazardous metals and compounds are also released into the ocean when artillery shells, grenades, high explosives, rockets, and submunitions<sup>2</sup> fail to explode and sink to the bottom. Table 3.3-3 on p. 3.3-8 shows that nearly 5 percent of all military ordnance fails to explode.

"Under the No Action Alternative," the authors announce, "a total of 25,856 naval gunshells would be expended over an ocean area of approximately 122,400 nm<sup>2</sup>." Astonishingly, as emphasized in my February 15 preliminary comments, the EIS *absolutely nowhere says whether those figures are per day, per month, per year, or for how many years past*. Assuming for the sake of the authors' immortal souls that the figures are per year, that would mean some 1,292.8 pieces of unexploded ordnance sinking to the ocean floor every year for an undisclosed number of years. From each of these, according to the EIS, would leach every year undisclosed quantities of barium chromate, potassium perchlorate, phosphorus, titanium compounds, depleted uranium, lead oxide, lead chromate, ammonium perchlorate, fulminate of mercury, and lead azide.

That these are hazardous materials the authors fleetingly note, but then conclude, yet again with absolutely no references whatever: "However, the hazardous constituents decompose slowly, so existing ocean and tidal currents would dissipate these materials to undetectable levels."

Obviously, the EIS authors never troubled to do even a minimal search, which would have brought up numerous articles on highly toxic carcinogenic compounds leaching from unexploded ordnance in sea water, and uptake by marine organisms of such toxins. Some of this research was even done by, for, or in spite of the U.S. Navy in waters off of Vieques, which had been

<sup>2</sup>Any munition that, to perform its task, separates from a parent munition. Dictionary of Military and Associated Terms. US Department of Defence 2005.

pounded by Navy "training" and "testing" exercises for decades. The EIS nowhere even mentions worldwide concern over the extreme and growing hazard of unexploded ordnance in aquatic environments, as evidenced by international scientific meetings convened specifically to address this issue. See, e.g., "Cancer-causing Toxins Linked to Unexploded Munitions," *Science Daily*, February 18, 2009; also see U.S. Congressman Earl Blumenauer's UXO (unexploded ordnance) Caucus.

The EIS authors' omission of critical information on where and for how long its No Action Alternative actions have been depositing incredibly toxic materials into our ocean amounts to fraudulent concealment of hazards which the Navy knows or should have known could have serious, significant impacts on marine ecosystems and the humans who depend on them. Indeed, the total failure to address this issue strongly suggests an EIS written to support a pre-ordained proposal, assiduously leaving out inconvenient facts that contradict pre-ordained conclusions. The EIS should therefore be withdrawn and the NEPA process begun again honestly, with competent authors.

#### **EIS failure to address synergism compounds ignorance of pre-existing condition of environment**

While the EIS authors acknowledge the phenomenon of synergism, they apparently labor under the delusion that the word applies only to sonar. Should they actually read the wealth of research on the numerous toxins the Navy dumps with abandon into coastal waters, they would see many references to synergistic effects among different compounds. Lest the authors have forgotten or never knew, *synergism* occurs when the effects of two or more chemicals combined are greater than and/or different from the sum of their effects separately. Many of the uncited references for chromium and chromium compounds, for example, emphasize that their extremely toxic effects are susceptible to synergism with other elements and conditions, particularly in aquatic systems. The EIS failure to address synergism among the pollutants it produces further invalidates its stunning array of unfounded conclusions.

The failure to address synergism is further compounded by the total failure to address the already compromised aquatic environment of coastal Pacific waters, or how *all* of the Navy's supposed alternatives would exacerbate such pre-existing conditions. A brief search shows that numerous government

reports and scientific studies have raised serious concerns about the levels of pollutants being flushed into the ocean by Pacific river systems. The Columbia River, for example, carries toxic loads of dioxins, PCBs, pesticides, radionuclides, heavy metals and other toxins into the ocean (see, e.g., "Columbia River toxins moving up food chain," by Craig Welch, *Seattle Times*, July 10, 2008), where currents and winds carry them to our beaches and coastal waters both north and south of the river mouth. (see, e.g., Paul D. Komar, *The Pacific Northwest Coast: Living with the Shores of Oregon and Washington*, 1997) Other studies have periodically found similar contaminants in other coastal rivers. The EIS failure to address the existence of these well-known pollutants thus omits mention of any synergistic or additive effects of mixing them with the Navy's toxic effluvia, or of how Naval explosions will stir up poisons such as dioxins, PCBs, and heavy metals lodged in sediments and disperse them into the marine environment.

The Navy authors' apparent assumption that Navy activities occur in a pristine, untouched environment is a dangerous and extremely foolish fiction, compounded by the equally dangerous and foolish assumption that synergism does not occur among Navy pollutants and pre-existing poisons. Fiction and false assumptions have no place in environmental impact statements.

#### **Conclusion**

The above comments are but the tip of the iceberg, as there has not been time to critique the EIS's lengthy discussions of sonar impacts and explosion damage to marine organisms; a brief skim of those sections, however, indicates that they were prepared with the same cavalier indifference to scientific validation as the sections I have discussed above.

The EIS's gross omissions, false references, nonexistent references, and blatant, repeated assumptions based on no references at all render the document entirely invalid, both scientifically and legally. The EIS should therefore be withdrawn and the entire proposal re-examined and begun from scratch, with qualified personnel clearly identified and the public adequately informed and involved from the start.

The Navy's conduct in both the preparation and the public notification for this EIS has been extremely disillusioning, as it violates not just federal law but

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the Navy's own proud tradition of integrity and concern for its own people  
and for the public it serves.

Submitted by



Carol Van Strum

attachments (3)

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*Carol Van Strum  
7493 E. Five Rivers  
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(541) 528-7151*

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February 15, 2009

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, Washington 98315-1101  
ATTN: Mrs. Kimberly Kier - NWTRC EIS

Re: Preliminary comments on NWTRC EIS/OEIS

This letter presents my preliminary comments on the draft U.S. Navy Northwest Training Range Complex Environmental Impact Statement/Overseas Environmental Impact Statement, volumes 1 & 2, hereinafter referred to as the EIS.

I consider these to be preliminary comments because I was unaware of the EIS or the Navy's proposed actions until two weeks ago, when I learned via word of mouth of the public meeting held January 30, 2009, too late to be able to attend, particularly as the meeting was held some 45 miles from my home. Due to the Navy's gross failure to inform the public, Oregon's Congressional delegation has asked the comment period on the EIS to be extended to April 11, 2009, but as there is so far no response to the congressional request, I prepare these comments after only a cursory review of the EIS.

The Navy EIS fails to meet the requirements of the National Environmental Policy Act (NEPA) in at least five major respects, any one of which warrants withdrawal of the entire EIS and cancellation of the actions proposed therein. The five major failures identified so far are:

- 1) Failure to identify past, current and future activities in the waters off Oregon and northern California, which comprise most of the area involved in the EIS;
- 2) Total failure to support a finding of no significant impact for Oregon and

northern California waters;

- 3) Repeated assumptions of no impact based on absence of data, and repeated findings of no significant impact unsupported by either data or references;
- 4) Blatant failure to examine obvious and feasible alternatives such as reducing or eliminating all testing and training actions in the area; and
- 5) Monumental failure to notify the public or concerned parties from the outset, precluding meaningful review and comment at any stage of EIS development.

**1)** Because the EIS purports to discuss environmental impacts of Navy activities in an area encompassing the entire Oregon coastline, territorial waters, and beyond, its failure to identify those activities precludes meaningful comment and invalidates all conclusions of no significant impact, rendering the entire document invalid.

A "no action" alternative should, as the name implies, mean no action. In Navy parlance, however, the Navy's deceptively named "No Action" alternative reveals that "no action" actually means to continue activities which the Navy claims to be already conducting off the Oregon coast; however, the EIS nowhere identifies what those current activities are, where they are occurring, for how long they have occurred, or what environmental impacts of those activities have already accrued; furthermore, the EIS nowhere identifies any previous environmental assessment or environmental impact statement describing/identifying these current and past activities or discussing their environmental impacts.

The question of past and current Naval activities is highly significant. For example, the EIS acknowledges that past and present activities off the Oregon coast have involved the use of rounds comprised of depleted uranium. Uranium, depleted or otherwise, is an exceptionally persistent material in the environment. The EIS revelations of Navy use of depleted uranium thus raise very serious concerns about how long the Navy has been using depleted uranium rounds in the Pacific Ocean, how much was used per year, where that use has occurred, and what environmental impacts have already accrued from such use, such as uptake by fish and synergistic effects with other wastes and products

from Naval exercises. The EIS mentions none of these issues.

**As current activities off the Oregon coast are not covered in this or any environmental impact statement or assessment, such activities are therefore unlawful and the Navy should immediately desist from all activities of any kind in waters from the Oregon coast to the 250-mile limit until such time as valid environmental documents, addressing all current and past activities and their effects, have been prepared and adequately made public to the people of Oregon.**

**2)** The EIS states that its proposed action "may have coastal effects" in the state of Washington, but that "For the States of Oregon and California, the Navy has determined that its Proposed Action will have no coastal effects." (The coastal zone extends 3 nautical miles seaward from the shoreline.) The EIS absolutely *nowhere* describes either what the proposed action is or will be in Oregon and California coastal waters, or what the effects of the unnamed proposed action will be in those waters. For example, see Table 4-2, pp. 4-3 to 4-7, "Past, Present and Planned Future Projects in the Offshore Area," which does not include a single project identified for Oregon or northern California. For further example, the word "Oregon" occurs on some 106 pages in Vol. I of the EIS, and on 23 pages of Vol. II; on at most only **five (5)** of those pages does the phrase "no significant impact" also occur, and on *none* of these five pages are any specific actions or locations mentioned. **The Navy EIS determination that the Proposed Action will have no coastal effects in Oregon and California is therefore arbitrary, capricious, and entirely unsupported by any evidence whatsoever. The entire EIS should be withdrawn for that reason alone.**

**3)** Throughout the entire EIS, the Navy exhibits a blatant don't look, don't tell policy toward environmental effects, using an absence of data to justify an assumption that no effects occur. For example, see p. 3.6-15, "The study area for consideration of impacts on marine plants and invertebrates includes the open ocean west of Washington, Oregon, and northern California...Aircraft overflight and training activities **are assumed to have no impacts to marine communities, because impacts of sound on plants and invertebrates are unknown and difficult to quantify.**" Similarly, the EIS repeatedly states a finding of no significant impact totally unsupported by data or even references, e.g., Tables ES-3 Summary of Effects – Geology and Soils; and ES-4

Summary of Effects – Air Quality, which typically conclude, with no data, first that the impacts would be the same as Alternative 1 (for which no specific activities, locations, or impacts were described for Oregon or California), and second, that no significant impacts would therefore occur.

4) The EIS fails to examine or consider such obvious and feasible alternatives as reducing or eliminating all training and testing activities in the ocean and territorial waters off Oregon and northern California; or conducting such exercises in other areas of the ocean, such as islands being submerged by rising waters due to global warming, or areas infested by pirates that would provide excellent practice for Naval anti-piracy activities.

5) From the outset, the monumental failure of the Navy to notify the public or concerned parties of its proposed actions totally precluded meaningful public participation, review, and comment. The Navy's sole public notice of the 2007 notice of intent/scoping phase of this EIS was placed in a single Oregon newspaper, the *News Guard*, a small weekly in the coastal town of Lincoln City read by very few people outside the immediate vicinity of Lincoln City, thus depriving most of the state and entire coast of any notice whatsoever. According to the EIS, notice of publication of the current draft EIS was placed in the same paper in December, 2008, announcing a public meeting January 30 in South Beach (not Depoe Bay, as the EIS states). However, the editor of the *News Guard* emphatically reported that the paper received no such notice whatsoever and knew nothing of the public meeting until after it occurred. Although the Navy placed small, almost invisible, unreadable ads in a Newport newspaper prior to the meeting<sup>3</sup>, every person who attended – including the Newport paper's reporter -- stated that they learned of it only through word of mouth. Thus a meeting and publication of vital importance to the entire state and especially its 362-mile coastline, was to all intents and purposes a well-kept secret, regardless of Navy protestations to the contrary. **The EIS and the proposals the Navy has devised should therefore be withdrawn**

<sup>3</sup> Note also that online versions of said papers (in which Navy had placed ads of open house/hearing) do not carry all of the advertising present in the hard copy. Therefore, notice was even more limited than expected, because it was limited to readers who had access to a hard copy of the paper, thus reducing notice to a much smaller potential population than might otherwise be expected in these www days. The Navy's failure to even investigate this possibility, let alone compensate for it by utilizing the many other easily available & inexpensive methods of providing adequate public notice of the issuance of the scoping process & EIS, provides additional support for an immediate finding of failure to comply with NEPA & the Navy's own regulations implementing NEPA and the conclusion that the EIS should be withdrawn & the scoping process restarted. This time with appropriate compliance with NEPA.

**and the entire process started over from scoping notice on.**

For the above reasons, I advise the U.S. Navy to withdraw its EIS and correct the grave shortcomings of both its content and the process of public notice identified above before bringing its proposals forward again.

Submitted by:

Carol Van Strum  
7493 E. Five Rivers Rd.  
Tidewater, Oregon 97390  
(541) 528-7151

*Carol Van Strum  
7493 E. Five Rivers  
Tidewater, Oregon 97390  
(541) 528-7151*

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February 12, 2009

Miriam Brown-Lam  
Head, DON, Privacy Act/FOIA Policy Branch  
CNO (DNS-36)  
2000 Navy Pentagon  
Washington, D.C. 20350-2000  
telephone number: (202) 685-6545  
fax number: (202) 685-6580  
e-mail address: foia@mail.navy.mil

Via e-mail and certified  
mail #70012510000778211008

Re: FOIA request NWTRC DEIS/OEIS December 2008

Dear Miriam Brown-Lam:

This is a request for documents pursuant to the Freedom of Information Act. I request that copies of the following documents, or documents containing the following information be provided to me:

1. List of actual authors/preparers of the Northwest Training Range Complex Draft Environmental Impact Statement/Overseas Environmental Impact Statement (henceforth, "DEIS/OEIS");
2. All communications with any and all contractors hired to prepare, and/or review, and/or consult on the DEIS/OEIS;
3. All intra- and inter- agency communications, related to the DEIS/OEIS, whose release is not prohibited by law, and for all communications with parties outside the agency.
4. Any and all Environmental Assessments concerning the activities covered in the DEIS/OEIS;
5. Decision documents related to decision(s) not to prepare an Environmental Assessment on

activities covered in the DEIS/OEIS;

6. Records/documents/communications related to plan(s) to ensure appropriate communication with interested parties, and identifying which commands were responsible for ensuring public participation pursuant to 32 CFR § 775.11;
7. Records relating to decisions on locations, dates, and times of public meetings regarding the DEIS/OEIS;
8. Records relating to decisions on methods of providing notice of publication of DEIS/OEIS to interested parties and the public;
9. Records relating to decisions on choice of medium (CD, hard copy, web site or other) and location/recipient of the DEIS/OEIS for public review;
10. Records of the budget and actual itemized accounting of expenditures for this DEIS/OEIS, including, but not limited to, the scoping process, public notification process, printing, including public relations material, and all contractor fees.

In order to determine my status for purposes of determining applicability of any fees, I am a representative of the news media affiliated with Planet Waves, Daily Kos, and other on-line news outlets and this request is made as part of news gathering and not for commercial use, and this request is made for the express purpose of informing the public.

I request a waiver of all fees/costs for this request. Disclosure of the requested information to me is in the public interest because it is likely to contribute significantly to public understanding of the operations and activities of the government and is not in my commercial interest. I will be disseminating this information for the public benefit via the above-named websites, and via public interest groups such as Oregon Shores Conservation Coalition, Greenpeace, Audubon Society, and NRDC.

I ask that my request receive expedited processing because the comment period for the DEIS/OEIS ends on February 18, 2009, unless the Secretary of the Navy grants the Congressional delegation's request for an extension. The information requested is essential for preparing meaningful comments on both the DEIS/OEIS contents and the adequacy of the notice provided by the Navy.

I am available at the above phone number from the hours of 8 a.m. to 11 a.m. PST, or by e-mail at [cvs@casco.net](mailto:cvs@casco.net).

Thank you,

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Carol Van Strum March 8, 2009  
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Carol Van Strum

cc: Rep. Schrader, Rep. DeFazio, Rep. Blumenauer, Rep. Wu, Sen. Wyden, Sen. Merkley

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*Carol Van Strum  
7493 E. Five Rivers  
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(541) 528-7151*

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March 1, 2009

Miriam Brown-Lam  
Head, DON, Privacy Act/FOIA Policy Branch  
CNO (DNS-36)  
2000 Navy Pentagon  
Washington, D.C. 20350-2000  
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fax number: (202) 685-6580  
e-mail address: foia@mail.navy.mil

Via e-mail and certified  
mail #70012510000778210995  
and fax # 202-685-6580

Re: FOIA request NWTRC DEIS/OEIS December 2008

Dear Miriam Brown-Lam:

This is a request for documents pursuant to the Freedom of Information Act. I request that copies of the following studies cited in the NWTRC DEIS/OEIS be provided to me:

Hanson, W.C. 1974. Ecological Considerations of Depleted Uranium Munitions. Report LA-5559. Los Alamos Scientific Laboratory of the University of California. Los Alamos, NM. (citation Vol 2, p. 8-4 of EIS)

Toque, C. 2006. Marine Environmental Depleted Uranium Survey Report – Kirkcudbright Training Area – 2—4. Environmental Sciences Department, Institute of Naval Medicine. Gosport, UK. (citation Vol. 2, p. 8-5 of EIS).

**The above two studies are the *only* references cited in the EIS to support its conclusion of no significant impact on marine ecosystems, marine organisms, or human health from the Navy's use and disposal of thousands of pounds per year of depleted uranium ordnance in our offshore waters.**

*Carol Van Strum  
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(541) 528-7151*

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A long and futile search of the scientific literature, both on-line and through library services, has revealed that neither of the above references was ever published in any peer-reviewed scientific publication. As it is impossible to determine the validity of the EIS claim of no significant impact without reviewing its sources, I ask that the comment period be extended at least 30 days beyond my receipt of the above studies in order to allow qualified scientific reviewers to evaluate the studies and determine whether they support the EIS claims regarding depleted uranium safety.

March 10, 2009

In order to determine my status for purposes of determining applicability of any fees, I am a representative of the news media affiliated with Planet Waves, Daily Kos, and other on-line news outlets and this request is made as part of news gathering and not for commercial use, and this request is made for the express purpose of informing the public.

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, Washington 98315-1101  
ATTN: Mrs. Kimberly Kier – NWTRC EIS

Re: further preliminary comments on NWTRC EIS/OEIS

I request a waiver of all fees/costs for this request. Disclosure of the requested information to me is in the public interest because it is likely to contribute significantly to public understanding of the operations and activities of the government and is not in my commercial interest. I will be disseminating this information for the public benefit via the above-named websites, and via public interest groups such as Oregon Shores Conservation Coalition, Greenpeace, Audubon Society, and NRDC, as well as veterans' groups concerned about exposure to depleted uranium.

Please accept a corrected version of my comments on the NWTRC EIS/OEIS, which I submitted yesterday via e-mail through Sheila Murray. The letter enclosed is to replace the first 8 pages of my March 8 submission.

I ask that my request receive expedited processing because the comment period for the DEIS/OEIS is currently scheduled to end on March 11, 2009, unless an extension is granted to allow scientific and public scrutiny of the Navy's only two references on a subject of extreme public and scientific interest. The information requested is essential for preparing meaningful comments on the DEIS/OEIS assumptions regarding a seriously toxic compound.

The discussion in footnote # 1 of my comments was in error, as I mistakenly omitted important information about the only study allegedly supporting EIS claims that marine organisms will not absorb depleted uranium. The omitted part of my discussion was that the samples included .9 kg of scallops and that the scallops and three lobsters were not collected from the affected seafloor but were purchased at a store. I attach a corrected version of my comments, and ask that it be substituted for yesterday's submission. The corrected footnote in its entirety is reproduced below:

In asking for expedited processing, I remind the Navy that I have still received none of the materials requested in my February 12, 2009 Freedom of Information Act request, which was also for information essential for preparing meaningful comments on the EIS. I sincerely hope the Navy does not treat the current request with similar indifference.

"The EIS authors apparently read only the conclusions of the Toque report, "that the survey results show no evidence of DU being present in any marine environmental sample collected in the year 2004." This conclusion is incontrovertably false. In fact, the report found heavy depleted uranium contamination in soil around land-based gun emplacements, in soil under the trajectory of the ordnance, and to a lesser degree in the sea water, sediments, and organisms of the bay where the ordnance fell – not at all the same situation as ordnance fired from shipboard guns and missiles and aircraft that spew firing residues directly into the water as our Navy does. Furthermore, the study's methodology would not pass muster for even a high school science project. For starters, the *entire* sampling of marine organisms consisted of a bucket of mussels, .9 kg of shelled scallops, and three lobsters; in a section straight out of Monty Python named "Seafood purchase methodology" the author reports with a straight face that the three lobsters and the scallops were bought in a shop in Kirkcudbright "and boiled within a day of purchase." Even with this amazing sample acquisition, uranium and DU were found, and not

I am available at the above phone number from the hours of 8 a.m. to 11 a.m. PST, or by e-mail at [cvs@casco.net](mailto:cvs@casco.net).

Thank you,

Carol Van Strum

cc: Rep. Schrader, Rep. DeFazio, Rep. Blumenauer, Rep. Wu, Sen. Wyden, Sen. Merkley

even truly creative data contortions support the report's "no evidence of DU" conclusion. For example, all uranium found in the shelled, cooked mussels was attributed by legerdemain to bits of uranium-contaminated sediment or shell that "**may have accidentally contaminated**" the meat. DU and uranium levels in the store-bought scallops are dismissed with similar semantics. After the very high level of uranium in one of three store-bought lobsters was reduced 81% (applying a completely unreferenced and phenomenally high dry/wet weight ratio) the level was still twice the mean for all of the UK, at which point the author simply concludes that "such a low concentration is not deemed significant" (except, of course, to the person who might eat that third lobster). How "not deemed significant" is equivalent to zero is nowhere explained in this report."

Sincerely,



Carol Van Strum  
enclosure

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Carol Van Strum March 8, 2009  
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*Carol Van Strum  
7493 E. Five Rivers  
Tidewater, Oregon 97390  
(541) 528-7151*

---

March 8, 2009

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, Washington 98315-1101  
ATTN: Mrs. Kimberly Kier - NWTRC EIS

Re: further preliminary comments on NWTRC EIS/OEIS

This letter incorporates by reference and by attachment my February 15, 2009 preliminary comments on this EIS, and my two Freedom of Information Act (FOIA) requests of February 12 and March 1, 2009, asking for materials relied upon by the Navy and crucial to any evaluation of the EIS. The Navy has so far produced not a single one of the clearly defined documents requested, not even reports cited in the EIS itself.

Because of the Navy's refusal to provide crucial records relating to the EIS, I request that the comment period be extended at least 60 days beyond the date of such records finally being provided. These comments are therefore preliminary and I reserve the right to submit further comments after the Navy has complied with the Freedom of Information Act.

The Navy's refusal to provide crucial documents strongly suggests the Navy's own lack of confidence in its EIS. As shown below, such lack of faith is amply justified; indeed, if this document reflects the Navy's competence in other areas of its job -- such as navigation, chart or map reading, basic marine research, and anticipating the outcome of naval actions -- our nation is in deadly peril of defeat through sheer incompetence.

**The Navy's refusal to provide documents requested under FOIA precludes meaningful comments on this EIS**

The Navy's refusal to comply with reasonable FOIA requests invalidates this EIS

for the following reasons.

My February 12, 2009 FOIA request asked for:

1. Documents identifying the authors, contributors, and contractors who prepared this EIS. It is impossible for the public, our elected representatives, or even the Navy itself to trust the conclusions, factual validity, or integrity of the EIS (particularly given its near-total lack of scientific references as discussed below) without knowing the identity, credentials, academic qualifications and experience of the authors.
2. All communications with governmental and outside agencies, in order to determine what, if any, objective critiques, scientific data, and advice were sought and received by the Navy;
3. Environmental Assessment(s) prepared by the Navy in accordance with Navy regulations 775.4 (d)(3) to prepare an environmental assessment in order to determine whether "preparation of an environmental impact statement is required." Obviously, such an environmental assessment would identify what activities the Navy was conducting and where and when, as well as what impacts were likely to be significant from which activities, none of which information is included in the EIS;
4. Records that would reveal where, how, and why the Navy's multiple, repeated failures of NEPA notification requirements occurred;
5. Records of the budget for this EIS, essential for both the public and our elected representatives to determine how much taxpayer money was wasted on a grossly incompetent EIS.

My March 1, 2009 FOIA request asked for the only two documents cited by the EIS in support of its conclusion of no significant impact on marine life or human health from the Navy's use and disposal of thousands of pounds per year of depleted uranium ordnance in offshore waters:

1. Hanson, W.C. 1974. Ecological Considerations of Depleted Uranium Munitions. Report LA-5559. Los Alamos Scientific Laboratory of the University of California. Los Alamos, NM. (citation Vol 2, p. 8-4 of EIS)
2. Toque, C. 2006. Marine Environmental Depleted Uranium Survey Report – Kirkcudbright Training Area – 2—4. Environmental Sciences Department, Institute of Naval Medicine. Gosport, UK. (citation Vol. 2, p. 8-5 of EIS).

As noted in my FOIA request, neither of these two studies was ever published in a peer-reviewed journal; whether they were ever published at all, in the sense of being made readily available to the public, is highly questionable. The 1974 Hanson study appears to be an unpublished report

for the Atomic Energy Commission and diligent searches of multiple academic, scientific, and government data bases have failed to find it. After I sent my FOIA request, dedicated librarians at the Hatfield Marine Science Laboratory's Guin Library managed to find a copy of the Toque 2006 study, which was done for the British Royal Navy; it is a lengthy report, consisting primarily of boiler-plate language from previous reports, but most importantly it absolutely nowhere supports the Navy EIS claim of no uptake of uranium by marine organisms. In fact, what data the report contains utterly contradict Navy claims<sup>1</sup>.

Thus, the Navy relies solely on two unpublished, non-peer-reviewed reports, one of which is unavailable and the other totally irrelevant and contradictory to EIS claims regarding an extremely toxic, extremely persistent compound being released in unrevealed quantities into our waters. The Navy's claim of no significant impact from un-measured depleted uranium releases is therefore without any foundation. For this reason alone the EIS should be withdrawn and started over, with scientifically sound, relevant, peer reviewed, publicly available research supporting any Navy conclusion.

#### **The Navy's reliance on nonexistent research invalidates EIS in its entirety**

For other metallic poisons discharged into Oregon waters, the EIS authors launch into sheer fiction, supported occasionally by what can only be called the incest school of scientific notation. For example, see text and tables revealing Navy deposits of undisclosed quantities of chromium and chromium

<sup>1</sup> The EIS authors apparently read only the conclusions of the Toque report, "that the survey results show no evidence of DU being present in any marine environmental sample collected in the year 2004." This conclusion is incontrovertibly false. In fact, the report found heavy depleted uranium contamination in soil around land-based gun emplacements, in soil under the trajectory of the ordnance, and to a lesser degree in the sea water, sediments, and organisms of the bay where the ordnance fell – not at all the same situation as ordnance fired from shipboard guns and missiles and aircraft that spew firing residues directly into the water as our Navy does. Furthermore, the study's methodology would not pass muster for even a high school science project. For starters, the *entire* sampling of marine organisms consisted of a bucket of mussels, 9 kg of shelled scallops, and three lobsters; in a section straight out of Monty Python named "Seafood purchase methodology" the author reports with a straight face that the three lobsters and the scallops were bought in a shop in Kirkcudbright "and boiled within a day of purchase." Even with this amazing sample acquisition, uranium and DU were found, and not even truly creative data contortions support the report's "no evidence of DU" conclusion. For example, all uranium found in the shelled, cooked mussels was attributed by legerdemain to bits of uranium-contaminated sediment or shell that "*may have accidentally contaminated*" the meat. DU and uranium levels in the store-bought scallops are dismissed with similar semantics. After the very high level of uranium in one of three store-bought lobsters was reduced 81% (applying a completely unreferenced and phenomenally high dry/wet weight ratio) the level was still twice the mean for all of the UK, at which point the author simply concludes that "such a low concentration is not deemed significant" (except, of course, to the person who might eat that third lobster). How "not deemed significant" is equivalent to zero is nowhere explained in this report.

compounds into coastal waters at pp. 3.3-7; 3.3-9; 3.3-16; 3.3-17; 3.3-19; 3.4-15; and 3.4-24 of Volume 1.

The EIS authors acknowledge that chromium compounds along with other metallic poisons will be deposited in the sea as components of "vessels, manned and unmanned aircraft, bombs, shells, missiles, sonobuoys, batteries, electronic components, and as anti-corrosion compounds coating exterior metal surfaces." The authors conclude, with no references whatsoever, that these compounds "will settle to the bottom where they will lodge in deep sediments, eventually be covered by sediment, encrusted by chemical processes (e.g., rust), or covered by marine organisms (e.g., coral)." (EIS p. 3.3-7) In a burst of scientific creativity, the authors further state that "seawater will eventually oxidize the expended training material into benign byproducts;" producing a faux reference not to a scientific paper or even to an unpublished report, but to another U.S. Navy environmental impact statement! (Vol. 2, p. 8-4: "DoN. 2008c. Draft Southern California Range Complex Environmental Impact Statement/Overseas Environmental Impact Statement.)

In contrast to the authors' remarkable portrait of benign byproducts, a brief internet search for data on chromium and the chromium compounds listed in the EIS (barium chromate and lead chromate) brings up hundreds of references, to both scientific and regulatory documents, in which the commonest phrases are:

"profoundly toxic,"

"a known carcinogen, developmental toxicant, and reproductive toxicant;"

"very persistent in water;"

"high potential for bioconcentration of chromium in aquatic organisms;"

"highly toxic to aquatic organisms and can pose serious risk to humans;"

"highly toxic, corrosive, and carcinogenic;"

"may cause cancer and/or heritable genetic damage;"

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"very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment."

*Not a single one of the hundreds of references on chromium or chromium compounds includes the word "benign."* The U.S. Navy, an extensive search shows, is the only entity to apply the word "benign" to chromium or chromium compounds – and the U.S. Navy can cite *only* the U.S. Navy for its application of the word to so toxic a material. This is creative environmental assessment at its most inventive. Creativity, however, is not a requirement of NEPA. The EIS should be withdrawn and the process started over.

***The EIS discussion of Unexploded Ordnance is so misleading as to constitute fraudulent concealment***

EIS authors acknowledge that toxins such as uranium and chromium are not just spewed into air and water by explosions of Naval guns, missiles, and bombs. They blithely note that chromium, chromium compounds, depleted uranium, and other hazardous metals and compounds are also released into the ocean when artillery shells, grenades, high explosives, rockets, and submunitions<sup>2</sup> fail to explode and sink to the bottom. Table 3.3-3 on p. 3.3-8 shows that nearly 5 percent of all military ordnance fails to explode.

"Under the No Action Alternative," the authors announce, "a total of 25,856 naval gunshells would be expended over an ocean area of approximately 122,400 nm<sup>2</sup>." Astonishingly, as emphasized in my February 15 preliminary comments, the EIS *absolutely nowhere says whether those figures are per day, per month, per year, or for how many years past*. Assuming for the sake of the authors' immortal souls that the figures are per year, that would mean some 1,292.8 pieces of unexploded ordnance sinking to the ocean floor every year for an undisclosed number of years. From each of these, according to the EIS, would leach every year undisclosed quantities of barium chromate, potassium perchlorate, phosphorus, titanium compounds, depleted uranium, lead oxide, lead chromate, ammonium perchlorate, fulminate of mercury, and lead azide.

That these are hazardous materials the authors fleetingly note, but then conclude, yet again with absolutely no references whatever: "However, the hazardous constituents decompose slowly, so existing ocean and tidal currents would dissipate these materials to undetectable levels."

<sup>2</sup>Any munition that, to perform its task, separates from a parent munition. Dictionary of Military and Associated Terms. US Department of Defence 2005.

Obviously, the EIS authors never troubled to do even a minimal search, which would have brought up numerous articles on highly toxic carcinogenic compounds leaching from unexploded ordnance in sea water, and uptake by marine organisms of such toxins. Some of this research was even done by, for, or in spite of the U.S. Navy in waters off of Vieques, which had been pounded by Navy "training" and "testing" exercises for decades. The EIS nowhere even mentions worldwide concern over the extreme and growing hazard of unexploded ordnance in aquatic environments, as evidenced by international scientific meetings convened specifically to address this issue. See, e.g., "Cancer-causing Toxins Linked to Unexploded Munitions," Science Daily, February 18, 2009; also see U.S. Congressman Earl Blumenauer's UXO (unexploded ordnance) Caucus.

The EIS authors' omission of critical information on where and for how long its No Action Alternative actions have been depositing incredibly toxic materials into our ocean amounts to fraudulent concealment of hazards which the Navy knows or should have known could have serious, significant impacts on marine ecosystems and the humans who depend on them. Indeed, the total failure to address this issue strongly suggests an EIS written to support a pre-ordained proposal, assiduously leaving out inconvenient facts that contradict pre-ordained conclusions. The EIS should therefore be withdrawn and the NEPA process begun again honestly, with competent authors.

#### **EIS failure to address synergism compounds ignorance of pre-existing condition of environment**

While the EIS authors acknowledge the phenomenon of synergism, they apparently labor under the delusion that the word applies only to sonar. Should they actually read the wealth of research on the numerous toxins the Navy dumps with abandon into coastal waters, they would see many references to synergistic effects among different compounds. Lest the authors have forgotten or never knew, *synergism* occurs when the effects of two or more chemicals combined are greater than and/or different from the sum of their effects separately. Many of the uncited references for chromium and chromium compounds, for example, emphasize that their extremely toxic effects are susceptible to synergism with other elements and conditions, particularly in aquatic systems. The EIS failure to address synergism among the pollutants it produces further invalidates its stunning array of unfounded conclusions.

The failure to address synergism is further compounded by the total failure to address the already compromised aquatic environment of coastal Pacific waters, or how *all* of the Navy's supposed alternatives would exacerbate such pre-existing conditions. A brief search shows that numerous government reports and scientific studies have raised serious concerns about the levels of pollutants being flushed into the ocean by Pacific river systems. The Columbia River, for example, carries toxic loads of dioxins, PCBs, pesticides, radionuclides, heavy metals and other toxins into the ocean (see, e.g., "Columbia River toxins moving up food chain," by Craig Welch, *Seattle Times*, July 10, 2008), where currents and winds carry them to our beaches and coastal waters both north and south of the river mouth. (see, e.g., Paul D. Komar, *The Pacific Northwest Coast: Living with the Shores of Oregon and Washington*, 1997) Other studies have periodically found similar contaminants in other coastal rivers. The EIS failure to address the existence of these well-known pollutants thus omits mention of any synergistic or additive effects of mixing them with the Navy's toxic effluvia, or of how Naval explosions will stir up poisons such as dioxins, PCBs, and heavy metals lodged in sediments and disperse them into the marine environment.

The Navy authors' apparent assumption that Navy activities occur in a pristine, untouched environment is a dangerous and extremely foolish fiction, compounded by the equally dangerous and foolish assumption that synergism does not occur among Navy pollutants and pre-existing poisons. Fiction and false assumptions have no place in environmental impact statements.

#### **Conclusion**

The above comments are but the tip of the iceberg, as there has not been time to critique the EIS's lengthy discussions of sonar impacts and explosion damage to marine organisms; a brief skim of those sections, however, indicates that they were prepared with the same cavalier indifference to scientific validation as the sections I have discussed above.

The EIS's gross omissions, false references, nonexistent references, and blatant, repeated assumptions based on no references at all render the document entirely invalid, both scientifically and legally. The EIS should therefore be withdrawn and the entire proposal re-examined and begun from scratch, with qualified personnel clearly identified and the public adequately

informed and involved from the start.

The Navy's conduct in both the preparation and the public notification for this EIS has been extremely disillusioning, as it violates not just federal law but the Navy's own proud tradition of integrity and concern for its own people and for the public it serves.

Submitted by



Carol Van Strum

attachments (3)

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April 11, 2009

Naval Facilities Engineering Command Northwest  
101 Tautog Circle, Suite 203  
Silverdale, Washington 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Re: Comments on NWTRC draft EIS/OEIS

These comments incorporate by attachment and by reference my preliminary comments of February 15, 2009 and March 8, 2009, on the same EIS. The conclusions of my previous comments remain unaltered and are further supported by documents finally received in response to my two Freedom of Information Act requests.

Given my previous comments as restated, I address here some of the documents received from the Navy in the last two weeks with reference to my comments and conclusions.

1. Depleted Uranium studies.

At a televised public meeting with Mendocino County Supervisors on March 31, 2009, Navy representatives announced that due to comments received on the EIS, a directive had been issued ordering the use of depleted uranium by the Pacific Fleet halted immediately, and all stocks of depleted uranium ordnance returned to base. Navy spokesmen promised to provide the supervisors with a copy of the written directive. As of this writing, however, the Navy has not responded to my informal requests for the same document. Therefore, until that directive is made public, I assume that depleted uranium use continues and hereby update my comments.

The Navy has now provided copies of the two unpublished, non-peer-reviewed studies upon which it based its conclusions of no significant impact from use of depleted uranium ordnance. I discussed the Toque report in detail in my March 8 comments. The recently provided 1974 Hanson study, "Ecological Considerations of Depleted Uranium Munitions," is in fact not a study, but a review of literature up to 1974 on the subject. At that time, Hanson reports, there was actually no literature at all on the fate of depleted uranium munitions in marine environments, and Hanson's brief survey merely summarizes the few studies on *natural* uranium in seawater. His unpublished, non-peer-reviewed report repeatedly emphasizes the extreme chemical toxicity, as opposed to radioactive effects, of depleted uranium, and provides no empirical support for the Navy's finding of no significant impact from dumping of depleted uranium ordnance into coastal waters. Interestingly, the EIS fails to cite Hanson's later analytical and field work on the subject, such as his finding that "the solubility, and hence movement, of uranium through the ecosystem may be greater than anticipated." (Wayne C.

Hanson and Felix R. Miera, Jr., "Continued Studies of Long-Term Ecological Effects of Exposure to Uranium," June 1977, Los Alamos Scientific Laboratory report LA-6742, AFATL-TR-77-35.)

Even if depleted uranium has in fact been discontinued by the Pacific Fleet, a valid EIS must address the issue because the unidentified amount of DU already dumped in our waters by unstated years or decades of Navy activities is by the Navy's own admission a "baseline" condition for all alternative actions. Moreover, the Navy's reliance on these unpublished, non-peer-reviewed reports to support its No Significant Impact conclusions exemplifies its selective bias, as in other places the authors righteously dismiss unsupportive research because it is unpublished and non-peer-reviewed (see #3 below).

2 The Navy has provided no materials whatsoever responsive to my request for environmental or other documents that would identify the past and current activities that form the "No Action" alternative presented in the EIS. As both the EIS and related documents state, and as Navy spokespersons have publicly confirmed, these past and current Navy activities are the "baseline" for assessing environmental impacts of proposed future actions. As concluded in my previous comments, **the failure of the EIS to identify these "baseline" activities and their cumulative impacts invalidates the entire EIS.**

3. Nonexistent research continues to invalidate the EIS and its supporting Biological Evaluation, particularly in the failure to support with any data whatsoever Navy conclusions of no significant impact to birds, mammals, fish, and other marine life from highly toxic chemicals and metals deposited in the water by Navy activities. The recently provided Biological Evaluation (BE), prepared by the same military contractors who prepared the EIS, further compounds this failure, underscoring the extremely selective nature of the Navy's environmental evaluations. The BE is repeatedly cited in the EIS as the primary support for Navy findings of no significant impacts on birds, fish, sea turtles, invertebrates, and marine mammals. In the interests of brevity and boredom prevention, two examples of its inadequacy suffice:

a. As noted above, the Navy is happy to rely solely on unpublished, non-peer-reviewed reports that might support its findings of no significant impact, but is quick to dismiss such information when it suggests significant impacts; for example, see Biological Evaluation pp. 5-30, 5-31 dismissing studies showing effects of sound on fish: "much of this literature has not been peer reviewed, and there are substantial issues with regard to the actual effects of these sounds on fish."

b. Equally telling is the overwhelming bulk of both the EIS and its supporting BE devoted solely to marine mammals and sound. Since preparation of an EIS was prompted by lawsuits over this issue, some extra attention is excusable, but not to the nearly total neglect of other Navy hazards and other forms of marine life. The Navy acknowledges, for example, that of human threats to world-wide small cetacean populations, noise represents 1.1%, while pollution represents a whopping 21.9% (see chart repeated at pages A-9 and 5-62 of BE), yet of some 533 references cited in the BE, **only 4 refer to pollution (2 cites) or toxics (2 cites)**, despite the Navy's acknowledged pollution of coastal waters with highly toxic, carcinogenic chemicals and heavy metals, as discussed in my previous comments. Similarly, out of 533 references, some 334 relate to marine mammals, but only 32 concern fish and even fewer refer to birds and

other life forms. **This obvious lack of research undermines the Navy's findings of no significant impacts of Navy activities on all forms of marine life, further invalidating an already invalid EIS.**

c. Compounding the above shortcomings of both the EIS and the BE is the inexplicable fragmentation of Navy activities and their consequences. Each activity is described and evaluated in isolation from others, as are each species of fish, mammal, reptile, or bird. Nowhere does the EIS consider the totality of Navy activities -- explosions, vast amounts of ordnance both exploded and unexploded, bilge water releases; sonobuoy disposal, ship engine noise, sonar noise, aircraft engine noise, radio communication noise, discarded shell casings; heavy metal and other toxins, cables, fuel leaks, exhaust, and untold amounts of other debris -- in what is in fact a single large body of water housing an interconnected ecosystem. Nowhere does the EIS consider the cumulative impacts of that totality on the ecosystem it impacts: sea floor hazards to trawlers from Navy trash; exposure of marine organisms to toxic compounds; disruption of fish and crab habitat by multiple Navy activities, as well as disruption of the entire marine food chain. This failure inexorably produces further failure to evaluate the impacts on commercial fishing and crabbing as well as recreational fishing, which are so vital to coastal economies and lifestyles.

4. **Total Failure of Public Participation efforts on this EIS.** According to Navy records, the Navy's expenditures to contractors for its public participation plan on this EIS totaled \$248,603.00, of which \$71,376 was for advertising alone. As detailed by other commenters and discussed in my previous comments, the Navy met neither its own criteria nor those of NEPA in the actual execution of public participation activities. Indeed, some of the most basic tenets of advertising and public relations were blatantly ignored, such as the well-known need to determine news media deadlines and meet them, in order to have time-sensitive material published *before* the event advertised occurs. Add to this failure the frequent crashes of the web site set up by the same contractors, the misdirecting of hard copy EISs to the wrong libraries, and the failure to place ads in on-line versions of local papers, and it is hard to imagine more incompetent results for the money.

Compounding the abysmal failure of its contractors to conduct the most basic public involvement functions, the Navy blithely relies on the same contractors to read, select, and summarize all public comments on the EIS and present only summaries, with suggested responses, to the Navy. Given these contractors' record so far, I intend to file Freedom of Information Act requests for **all** comments received on this EIS at both the scoping and draft level, and urge our Congressional delegation to do the same.

As amply demonstrated in my previous comments and those of others, the draft EIS and all supporting documents suffer from fatal omissions, errors, misinformation, and outright deception. "Why waste time discovering the truth when you can so easily create it?" asks David Baldacci in *The Whole Truth*. The Navy has paid inordinate amounts of money to contractors to create "truths" with no scientific basis whatsoever. What Baldacci masked as fiction, however, is unacceptable and unlawful under the National Environmental Policy Act. The EIS, the Biological Evaluation, the Letter of Authorization to NOAA, and all other supporting documents should therefore be immediately withdrawn and an honest effort made to meet not just the letter but also the spirit of the National Environmental Policy Act.

Submitted by:

Carol Van Strum

attachments (2)

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(541) 528-7151*

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March 8, 2009

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, Washington 98315-1101  
ATTN: Mrs. Kimberly Kier - NWTRC EIS

Re: further preliminary comments on NWTRC EIS/OEIS

This letter incorporates by reference and by attachment my February 15, 2009 preliminary comments on this EIS, and my two Freedom of Information Act (FOIA) requests of February 12 and March 1, 2009, asking for materials relied upon by the Navy and crucial to any evaluation of the EIS. The Navy has so far produced not a single one of the clearly defined documents requested, not even reports cited in the EIS itself.

Because of the Navy's refusal to provide crucial records relating to the EIS, I request that the comment period be extended at least 60 days beyond the date of such records finally being provided. These comments are therefore preliminary and I reserve the right to submit further comments after the Navy has complied with the Freedom of Information Act.

The Navy's refusal to provide crucial documents strongly suggests the Navy's own lack of confidence in its EIS. As shown below, such lack of faith is amply justified; indeed, if this document reflects the Navy's competence in other areas of its job -- such as navigation, chart or map reading, basic marine research, and anticipating the outcome of naval actions -- our nation is in deadly peril of defeat through sheer incompetence.

**The Navy's refusal to provide documents requested under FOIA precludes meaningful comments on this EIS**

The Navy's refusal to comply with reasonable FOIA requests invalidates this EIS for the following reasons.

My February 12, 2009 FOIA request asked for:

1. Documents identifying the authors, contributors, and contractors who prepared this EIS. It is impossible for the public, our elected representatives, or even the Navy itself to trust the conclusions, factual validity, or integrity of the EIS (particularly given its near-total lack of scientific references as discussed below) without knowing the identity, credentials, academic qualifications and experience of the authors.
2. All communications with governmental and outside agencies, in order to determine what, if any, objective critiques, scientific data, and advice were sought and received by the Navy;
3. Environmental Assessment(s) prepared by the Navy in accordance with Navy regulations 775.4 (d)(3) to prepare an environmental assessment in order to determine whether "preparation of an environmental impact statement is required." Obviously, such an environmental assessment would identify what activities the Navy was conducting and where and when, as well as what impacts were likely to be significant from which activities, none of which information is included in the EIS;
4. Records that would reveal where, how, and why the Navy's multiple, repeated failures of NEPA notification requirements occurred;
5. Records of the budget for this EIS, essential for both the public and our elected representatives to determine how much taxpayer money was wasted on a grossly incompetent EIS.

My March 1, 2009 FOIA request asked for the only two documents cited by the EIS in support of its conclusion of no significant impact on marine life or human health from the Navy's use and disposal of thousands of pounds per year of depleted uranium ordnance in offshore waters:

1. Hanson, W.C. 1974. Ecological Considerations of Depleted Uranium Munitions. Report LA-5559. Los Alamos Scientific Laboratory of the University of California. Los Alamos, NM. (citation Vol 2, p. 8-4 of EIS)

2. Toque, C. 2006. Marine Environmental Depleted Uranium Survey Report – Kirkcudbright Training Area – 2—4. Environmental Sciences Department, Institute of Naval Medicine. Gosport, UK. (citation Vol. 2, p. 8-5 of EIS).

As noted in my FOIA request, neither of these two studies was ever published in a peer-reviewed journal; whether they were ever published at all, in the sense of being made readily available to the public, is highly questionable. The 1974 Hanson study appears to be an unpublished report for the Atomic Energy Commission and diligent searches of multiple academic, scientific, and government data bases have failed to find it. After I sent my FOIA request, dedicated librarians at the Hatfield Marine Science Laboratory's Guin Library managed to find a copy of the Toque 2006 study, which was done for the British Royal Navy; it is a lengthy report, consisting

primarily of boiler-plate language from previous reports, but most importantly it absolutely nowhere supports the Navy EIS claim of no uptake of uranium by marine organisms. In fact, what data the report contains utterly contradict Navy claims<sup>1</sup>.

Thus, the Navy relies solely on two unpublished, non-peer-reviewed reports, one of which is unavailable and the other totally irrelevant and contradictory to EIS claims regarding an extremely toxic, extremely persistent compound being released in unrevealed quantities into our waters. The Navy's claim of no significant impact from un-measured depleted uranium releases is therefore without any foundation. For this reason alone the EIS should be withdrawn and started over, with scientifically sound, relevant, peer reviewed, publicly available research supporting any Navy conclusion.

#### **The Navy's reliance on nonexistent research invalidates EIS in its entirety**

For other metallic poisons discharged into Oregon waters, the EIS authors launch into sheer fiction, supported occasionally by what can only be called the incest school of scientific notation. For example, see text and tables revealing Navy deposits of undisclosed quantities of chromium and chromium compounds into coastal waters at pp. 3.3-7; 3.3-9; 3.3-16; 3.3-17; 3.3-19; 3.4-15; and 3.4-24 of Volume 1.

The EIS authors acknowledge that chromium compounds along with other metallic poisons will be deposited in the sea as components of "vessels, manned and unmanned aircraft, bombs, shells, missiles, sonobuoys, batteries, electronic components, and as anti-corrosion compounds coating exterior metal surfaces." The authors conclude, with no references whatsoever, that these compounds "will settle to the bottom where they will

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2 Any munition that, to perform its task, separates from a parent munition. Dictionary of Military and Associated Terms. US Department of Defense 2005.

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The failure to address synergism is further compounded by the total failure to address the already compromised aquatic environment of coastal Pacific waters, or how *all* of the Navy's supposed alternatives would exacerbate such pre-existing conditions. A brief search shows that numerous government reports and scientific studies have raised serious concerns about the levels of pollutants being flushed into the ocean by Pacific river systems. The Columbia River, for example, carries toxic loads of dioxins, PCBs, pesticides, radionuclides, heavy metals and other toxins into the ocean (see, e.g., "Columbia River toxins moving up food chain," by Craig Welch, *Seattle Times*, July 10, 2008), where currents and winds carry them to our beaches and coastal waters both north and south of the river mouth. (see, e.g., Paul D. Komar, *The Pacific Northwest Coast: Living with the Shores of Oregon and Washington*, 1997) Other studies have periodically found similar contaminants in other coastal rivers. The EIS failure to address the existence of these well-known pollutants thus omits mention of any synergistic or additive effects of mixing them with the Navy's toxic effluvia, or of how Naval explosions will stir up poisons such as dioxins, PCBs, and

heavy metals lodged in sediments and disperse them into the marine environment.

The Navy authors' apparent assumption that Navy activities occur in a pristine, untouched environment is a dangerous and extremely foolish fiction, compounded by the equally dangerous and foolish assumption that synergism does not occur among Navy pollutants and pre-existing poisons. Fiction and false assumptions have no place in environmental impact statements.

#### **Conclusion**

The above comments are but the tip of the iceberg, as there has not been time to critique the EIS's lengthy discussions of sonar impacts and explosion damage to marine organisms; a brief skim of those sections, however, indicates that they were prepared with the same cavalier indifference to scientific validation as the sections I have discussed above.

The EIS's gross omissions, false references, nonexistent references, and blatant, repeated assumptions based on no references at all render the document entirely invalid, both scientifically and legally. The EIS should therefore be withdrawn and the entire proposal re-examined and begun from scratch, with qualified personnel clearly identified and the public adequately informed and involved from the start.

The Navy's conduct in both the preparation and the public notification for this EIS has been extremely disillusioning, as it violates not just federal law but the Navy's own proud tradition of integrity and concern for its own people and for the public it serves.

Submitted by

Carol Van Strum

attachments (3)

\* \* \* \* \*

*Carol Van Strum  
7493 E. Five Rivers  
Tidewater, Oregon 97390  
(541) 528-7151*

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February 15, 2009

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, Washington 98315-1101  
ATTN: Mrs. Kimberly Kier – NWTRC EIS

Re: Preliminary comments on NWTRC EIS/OEIS

This letter presents my preliminary comments on the draft U.S. Navy Northwest Training Range Complex Environmental Impact Statement/Overseas Environmental Impact Statement, volumes 1 & 2, hereinafter referred to as the EIS.

I consider these to be preliminary comments because I was unaware of the EIS or the Navy's proposed actions until two weeks ago, when I learned via word of mouth of the public meeting held January 30, 2009, too late to be able to attend, particularly as the meeting was held some 45 miles from my home. Due to the Navy's gross failure to inform the public, Oregon's Congressional delegation has asked the comment period on the EIS to be extended to April 11, 2009, but as there is so far no response to the congressional request, I prepare these comments after only a cursory review of the EIS.

The Navy EIS fails to meet the requirements of the National Environmental Policy Act (NEPA) in at least five major respects, any one of which warrants withdrawal of the entire EIS and cancellation of the actions proposed therein. The five major failures identified so far are:

- 1) Failure to identify past, current and future activities in the waters off Oregon and northern California, which comprise most of the area involved in the EIS;
- 2) Total failure to support a finding of no significant impact for Oregon and northern California waters;
- 3) Repeated assumptions of no impact based on absence of data, and repeated findings of no significant impact unsupported by either data or

references;

- 4) Blatant failure to examine obvious and feasible alternatives such as reducing or eliminating all testing and training actions in the area; and
- 5) Monumental failure to notify the public or concerned parties from the outset, precluding meaningful review and comment at any stage of EIS development.

**1)** Because the EIS purports to discuss environmental impacts of Navy activities in an area encompassing the entire Oregon coastline, territorial waters, and beyond, its failure to identify those activities precludes meaningful comment and invalidates all conclusions of no significant impact, rendering the entire document invalid.

A "no action" alternative should, as the name implies, mean no action. In Navy parlance, however, the Navy's deceptively named "No Action" alternative reveals that "no action" actually means to continue activities which the Navy claims to be already conducting off the Oregon coast; however, the EIS nowhere identifies what those current activities are, where they are occurring, for how long they have occurred, or what environmental impacts of those activities have already accrued; furthermore, the EIS nowhere identifies any previous environmental assessment or environmental impact statement describing/identifying these current and past activities or discussing their environmental impacts.

The question of past and current Naval activities is highly significant. For example, the EIS acknowledges that past and present activities off the Oregon coast have involved the use of rounds comprised of depleted uranium. Uranium, depleted or otherwise, is an exceptionally persistent material in the environment. The EIS revelations of Navy use of depleted uranium thus raise very serious concerns about how long the Navy has been using depleted uranium rounds in the Pacific Ocean, how much was used per year, where that use has occurred, and what environmental impacts have already accrued from such use, such as uptake by fish and synergistic effects with other wastes and products from Naval exercises. The EIS mentions none of these issues.

**As current activities off the Oregon coast are not covered in this or any environmental impact statement or assessment, such activities are therefore unlawful and the Navy should immediately desist from all activities of any kind in waters from the Oregon coast to the 250-mile limit until such time as valid environmental documents, addressing all current and past**

**activities and their effects, have been prepared and adequately made public to the people of Oregon.**

**2)** The EIS states that its proposed action "may have coastal effects" in the state of Washington, but that "For the States of Oregon and California, the Navy has determined that its Proposed Action will have no coastal effects." (The coastal zone extends 3 nautical miles seaward from the shoreline.) The EIS absolutely ***nowhere*** describes either what the proposed action is or will be in Oregon and California coastal waters, or what the effects of the unnamed proposed action will be in those waters. For example, see Table 4-2, pp. 4-3 to 4-7, "Past, Present and Planned Future Projects in the Offshore Area," which does not include a single project identified for Oregon or northern California. For further example, the word "Oregon" occurs on some 106 pages in Vol. I of the EIS, and on 23 pages of Vol. II; on at most only **five (5)** of those pages does the phrase "no significant impact" also occur, and on *none* of these five pages are any specific actions or locations mentioned. **The Navy EIS determination that the Proposed Action will have no coastal effects in Oregon and California is therefore arbitrary, capricious, and entirely unsupported by any evidence whatsoever. The entire EIS should be withdrawn for that reason alone.**

**3)** Throughout the entire EIS, the Navy exhibits a blatant don't look, don't tell policy toward environmental effects, using an absence of data to justify an assumption that no effects occur. For example, see p. 3.6-15, "The study area for consideration of impacts on marine plants and invertebrates includes the open ocean west of Washington, Oregon, and northern California....Aircraft overflight and training activities **are assumed to have no impacts to marine communities, because impacts of sound on plants and invertebrates are unknown and difficult to quantify.**" Similarly, the EIS repeatedly states a finding of no significant impact totally unsupported by data or even references, e.g., Tables ES-3 Summary of Effects – Geology and Soils; and ES-4 Summary of Effects – Air Quality, which typically conclude, with no data, first that the impacts would be the same as Alternative 1 (for which no specific activities, locations, or impacts were described for Oregon or California), and second, that no significant impacts would therefore occur.

**4)** The EIS fails to examine or consider such obvious and feasible alternatives as reducing or eliminating all training and testing activities in the ocean and territorial waters off Oregon and northern California; or conducting such exercises in other areas of the ocean, such as islands being submerged by rising waters due to global warming, or areas infested by pirates that would provide excellent practice for

Naval anti-piracy activities.

**5)** From the outset, the monumental failure of the Navy to notify the public or concerned parties of its proposed actions totally precluded meaningful public participation, review, and comment. The Navy's sole public notice of the 2007 notice of intent/scoping phase of this EIS was placed in a single Oregon newspaper, the *News Guard*, a small weekly in the coastal town of Lincoln City read by very few people outside the immediate vicinity of Lincoln City, thus depriving most of the state and entire coast of any notice whatsoever. According to the EIS, notice of publication of the current draft EIS was placed in the same paper in December, 2008, announcing a public meeting January 30 in South Beach (not Depoe Bay, as the EIS states). However, the editor of the *News Guard* emphatically reported that the paper received no such notice whatsoever and knew nothing of the public meeting until after it occurred. Although the Navy placed small, almost invisible, unreadable ads in a Newport newspaper prior to the meeting<sup>3</sup>, every person who attended – including the Newport paper's reporter -- stated that they learned of it only through word of mouth. Thus a meeting and publication of vital importance to the entire state and especially its 362-mile coastline, was to all intents and purposes a well-kept secret, regardless of Navy protestations to the contrary. **The EIS and the proposals the Navy has devised should therefore be withdrawn and the entire process started over from scoping notice on.**

For the above reasons, I advise the U.S. Navy to withdraw its EIS and correct the grave shortcomings of both its content and the process of public notice identified above before bringing its proposals forward again.

Submitted by:

Carol Van Strum  
7493 E. Five Rivers Rd.  
Tidewater, Oregon 97390  
(541) 528-7151

<sup>3</sup> Note also that online versions of said papers (in which Navy had placed ads of open house/hearing) do not carry all of the advertising present in the hard copy. Therefore, notice was even more limited than expected, because it was limited to readers who had access to a hard copy of the paper, thus reducing notice to a much smaller potential population than might otherwise be expected in these www days. The Navy's failure to even investigate this possibility, let alone compensate for it by utilizing the many other easily available & inexpensive methods of providing adequate public notice of the issuance of the scoping process & EIS, provides additional support for an immediate finding of failure to comply with NEPA & the Navy's own regulations implementing NEPA and the conclusion that the EIS should be withdrawn & the scoping process restarted. This time with appropriate compliance with NEPA.

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
Attention: Mrs. Kimberly Kler-NWTRC EIS/OEIS

To Whom It May Concern,

The Puget Sound basin is not a suitable environment for Navy sonar and explosives training because of it is an echo chamber which causes harmful effects on marine mammals, fish and sea life. Because of the high volume of boat traffic, both commercial and pleasure, the Naval training exercises with subs and ships create a hazard for navigation, create dangerous wakes for small boaters, limit access, effect fish stocks and pollute our fragile environment that many are dependent upon for survival, for work and are what makes Puget Sound a high value area for living and vacationing. The National Marine Sanctuary should also be off limits, as is intended, for the protection of the ecosystem of our NW Pacific and interior waters.

The alternatives offered in the Navy's proposal for expanded training in the Northwest Training Range Complex do not provide adequate protection for humans, animals and environment. I ask the Navy to rework the draft EIS to include the following modifications in all alternatives being considered:

- Reduce the potential for oil spills, and collisions by having all submarines on the surface to the approaches to and in the Straits of Juan de Fuca
- Eliminate all use of depleted uranium by the Navy
- Ban at-sea dumping practices of the Navy - no old ammo, no petroleum, plastics, toxics, etc.
- Set aside the Olympic Coast National Marine Sanctuary from all training uses
- Adopt operational procedures and mitigation measures so as to make extraordinary sonic events less likely to disrupt whale populations.
- Cease all sonar exercises in Puget Sound & Haro Strait to avoid adding stress to the resident Orcas
- Increase the size of the US Navy's cetacean safety zones to the sizes of those used by other Navies
- Avoid key whale habitat by putting some areas off-limits to sonar training
- Seasonally avoid migration routes and feeding or breeding areas
- Monitor for marine mammals thirty minutes before training begins.
- Reduce sonar power during times of low visibility, when whales are hard to spot
- Increase the volume of active sonar gradually to give nearby marine mammals a chance to flee

As important as training is to the Navy, I urge you to amend all of the Alternatives with the modifications above.

Yours truly,  
David Vohs  
2607 Haines St.  
Port Townsend, WA 98368

cc: Senator Maria Cantwell  
Senator Patty Murray  
Congressman Norm Dicks

Dear Naval Facilities April 9, 2009  
Kimberly Kler

I got my action alert from California, Skywatch.com and the out of control testing of sea mammals of the Navy's Warfare testing grounds, to see how much damage of 32 species of animals this crazy government can do. And over a 5 year period. Have you all gone mad? To see what toxic soup of Depleted Uranium red & white phosphorus can have on sea animals that we eat. Not only is this country spraying our skies using defliners with poison in the fuel to kill people. And you have been doing it for decades now more testing on sea mammals and fish. This New World Order is out to kill everything & every body, to see how much we bleed, hemorage, etc on & on & on. The American people are the rats & mice. And so are the fish & mammals. Nothing, but a bunch of rats & mice to experiment on. How sick and out of control you people are your New World Order will die. Cause you are testing your toxic soup on defense

United States Navy  
**Public Hearing Comment Form**  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below

All comments must be received no later than February 18, 2009, to be considered in the Final EIS/OEIS.

Name: sandrajean Wainwright \_\_\_\_\_

Organization/Affiliation: \_\_\_\_\_

Address: \* P. O. Box 471 3167 Saratoga Road \_\_\_\_\_

City, State, Zip Code: Langley Wa. 98260 \_\_\_\_\_

Comments: I support the "No Action Alternative" because of the proven and possible adverse impact \_\_\_\_\_

Of the expanded activities. \_\_\_\_\_

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Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

less little animals, How cruel  
How sick. You don't give a  
a crap about nobody +  
nothing. you think animals  
are here for your own disposal  
for the sicko Navy, to do  
what ever they want. The  
U.S Navy, should be banned +  
ousted from this Country and  
I'm writing to my Congressmen  
Senators + the White House  
to file a Complaint. U.S  
Navy your time is coming  
Hell awaits with fire +  
eternal pain like you never  
felt before in destroying  
Gods Creatures that are  
here not only to eat but to  
have companionship + love.  
NO to testing for 5 years on  
animals, NO you sicko  
treaks NO NO NO  
Thanks Walt W

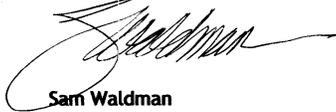
4/10/09

To: Naval Facilities Engineering Command Northwest  
Silverdale, Washington  
Attn: Mrs. Kimberly Kier

To Whom it may Concern:

As I'm sure you are aware, the oceans are in grave jeopardy, and any further assault upon the health of the systems and creatures within them approaches the suicidal. There must have been enough testing by this time to know what works and what doesn't, and further violence done to the earth by us needs to be stopped, not facilitated. Thank you for the opportunity to express my views.

Yours truly,



Sam Waldman  
P.O. Box 49  
Mendocino, CA 95460

**United States Navy  
Public Hearing Comment Form**  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

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- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kier - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: Starla C. Warburton

Organization/Affiliation: retired CTA WEA

Address: 30000 Timberline Rd.

City, State, Zip Code: Willits, CA 95490

Comments: Saving the life of our oceans is essential. Our water creatures deserve a healthy environment. The Navy has plenty of "practice" space already, the Navy does not need the space as they have excess already. The sea life has no where else to go. My family has always been Navy supporters. Three of my uncles were WWII Naval veterans. This, however, is about LIFE FOR US ALL.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

\*Provide your mailing address to receive future notices about the Northwest Training Range Complex EIS/OEIS.



STATE OF WASHINGTON  
 DEPARTMENT OF ECOLOGY  
 PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

February 11, 2009

Ms. Kimberly Kler, Environmental Planner  
 Naval Facilities Engineering Command Northwest  
 1101 Tautog Circle, Suite 203  
 Silverdale, WA 98315-1101

Dear Ms. Kler:

Thank you for the opportunity to comment on the draft environmental impact statement for the Northwest Training Range Complex project located along Washington, Oregon and Northern California coastline. The Department of Ecology (Ecology) reviewed the information provided and has the following comment(s):

**AIR QUALITY: Bernard Brady (360) 407-6803**

Best management practice for minimization of track out, windblown dust, and explosions should be required in applicable permitting.

**HAZARDOUS WASTE & TOXICS REDUCTION: Cristiana Figueroa-Kaminsky (360) 407-6342**

The applicant must ensure that all waste generated from operations at this site are designated and managed in accordance with the Dangerous Waste Regulations, Chapter 173-303 WAC.

The Hazardous Material Section (ES 1. 5. 3) states: *"Expended materials include the nonreactive materials that are not recovered following their use in a training activity. While these items represent persistent seabed litter, their strong resistance to degradation and their chemical composition mean that they do not chemically contaminate the surrounding environment by leaching heavy metals or organic compounds. Expended material that sinks to the sea floor would gradually degrade, be overgrown by marine life, or incorporated into the sediments."* Such materials must still be designated under WAC 173-303, and managed appropriately.

Ecology's comments are based upon information provided by the lead agency. As such, they may not constitute an exhaustive list of the various authorizations that must be obtained or legal requirements that must be fulfilled in order to carry out the proposed action.

If you have any questions or would like to respond to these comments, please contact the appropriate reviewing staff listed above.

Department of Ecology  
 Southwest Regional Office

(SM: 09-0014)

cc: Bernard Brady, AQP  
 Cristiana Figueroa-Kaminsky, HWTRS  
 Samuel Iwenofu, HWTRS



STATE OF WASHINGTON  
 DEPARTMENT OF ECOLOGY  
 PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

April 13, 2009

Ms. Kimberly Kler, Environmental Planner  
 Naval Facilities Engineering Command Northwest  
 1101 Tautog Circle, Suite 203  
 Silverdale, WA 98315-1101

Dear Ms. Kler:

Thank you for the opportunity to comment on the draft environmental impact statement for the Northwest Training Range Complex project located along Washington, Oregon and Northern California coastline. The Department of Ecology (Ecology) reviewed the environmental checklist and has the following comment(s):

**AIR QUALITY: Qing Chen (360) 407-6809**

Best management practice for minimization of track out and windblown dust should be included in any applicable permitting.

**SHORELANDS & ENVIRONMENTAL ASSISTANCE: Sarah Lukas (360) 407-7459**

Section 3.4 describes a significant amount, 183,867, of non-recovered materials or waste products proposed to be Washington State waters in the preferred alternative, or alternative two. The analysis describes several of these materials as containing known contaminants toxic to marine life and degrading to water quality such as lead, arsenic, and cyanide. These waste materials are proposed to remain in Washington State waters and decompose at their own rate. No analysis was submitted examining the impacts from the increased amount of shading due to the placement of these waste materials and the submitted analysis found that none of these materials would adversely affect marine life or water quality. Because no significant impact was found from the placement of these materials, no mitigation was proposed besides compliance with applicable federal laws governing these activities. I recommend the applicant propose removal of these materials from Washington State waters and disposal in appropriate upland locations as mitigation for the proposed activities.

The proposed placement of waste materials in Washington waters is not consistent with the Clean Water Act, and the Shoreline Management Act, an enforceable policy of the Coastal Zone Management Act.

The applicant will be required to acquire a 401 Water Quality Certification as well as a Coastal Zone Management Act Concurrence from Ecology. I suggest the applicant contact Rebekah Padgett, Federal Permit Manager, Ecology's Northwest Regional Office with any questions regarding this proposal. Ms. Padgett can be reached at (425) 649-7129 or by email at [rpadd461@ecv.wa.gov](mailto:rpadd461@ecv.wa.gov).



April 13, 2009  
Page 2

Ecology's comments are based upon information provided by the lead agency. As such, they may not constitute an exhaustive list of the various authorizations that must be obtained or legal requirements that must be fulfilled in order to carry out the proposed action.

If you have any questions or would like to respond to these comments, please contact the appropriate reviewing staff listed above.

Department of Ecology  
Southwest Regional Office

(SM: 09-0014A)

cc: Qing Chen, AQP  
Sarah Lukas, SEA



WASHINGTON STATE DEPARTMENT OF  
**Natural Resources**

PETER GOLDMARK  
Washington State Commissioner of Public Lands

January 26, 2009

Naval Facilities Engineering Command Northwest  
ATTN: Mrs. Kimberly Kler – NWTRC EIS/OEIS  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101

Subject: **Northwest Training Range Complex Environmental Impact Statement/Overseas Environmental Impact Statement**

Dear Mrs. Kler

Thank you for the opportunity to provide input on the *Northwest Training Range Complex Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS)*. This letter begins with a brief overview of the Washington State Department of Natural Resources' (DNR) role in the management of state-owned aquatic lands located adjacent to or within the proposed project area, followed by a few brief comments on the EIS/OEIS.

#### Authority

DNR is the proprietary manager of over 2.6 million acres of state-owned aquatic lands and attached resources, including the bedlands, shorelands, tidelands, and harbor areas adjacent to and within the United States Navy Northwest Training Range Complex (U.S. Navy, NWTRC). Resources located upon aquatic lands that DNR manages or co-manages include aquatic plants, aquatic animals, and valuable materials and minerals. Examples include eelgrass and geoduck, a type of shellfish important to the Washington economy.

DNR management authority derives from the state's constitution, law, and regulations.<sup>1</sup> As proprietary manager of state-owned aquatic lands, DNR has been directed to manage these lands "...for the benefit of the public..." in a manner that provides "...a balance of public benefits<sup>2</sup> for all citizens of the state..." that includes: "(1) Encouraging direct public use and access; (2) Fostering water-dependent uses<sup>3</sup>; (3) Ensuring environmental protection; and (4) Utilizing renewable resources" (Revised Code of Washington, 79.105.030). However, DNR's authority has limitations where military actions and federal navigational activities are occurring. This is

<sup>1</sup> Articles of the Constitution (XV, XVII, XXVII), Revised Code of Washington (RCW) 79.02, 79.10, 79.14 and, 79.105 to 79.145, Washington Administrative Code (WAC) 332-30.

<sup>2</sup> WAC 332-30-106 defines public benefit as "...that all of the citizens of the state may derive a direct benefit from departmental actions..."

<sup>3</sup> Water dependent uses are those uses that "...cannot logically exist in any location but on the water." (RCW 79.90.465).

because under the Submerged Lands Act, Congress retained the right to use submerged lands needed for navigation and national defense, among other things:

“The United States retains all its navigational servitude and rights in and powers of regulation and control of said lands and navigable waters for the constitutional purposes of commerce, navigation, national defense, and international affairs, all of which shall be paramount to, but shall not be deemed to include, proprietary rights of ownership, or the rights of management, administration, leasing, use, and development of the lands and natural resources which are specifically recognized, confirmed, established, and vested in and assigned to the respective States. . . . 43 U.S.C. 1314(a).”

Accordingly, if the Navy intends to occupy state-owned aquatic lands, in many cases it may do so under the authority of the powers retained by Congress in the Submerged Lands Act. Irrespective of the Act, DNR does not regulate navigation, and any use of state-owned aquatic lands for purposes of navigation by the Navy would not be subject to authorization by DNR.

So, while DNR recognizes that its authority is limited, in these matters, DNR would still respectfully like to comment on the following two issues:

**DNR requests that its aquatic land ownership layer be updated to reflect the latest U.S. Navy NWTRC boundaries**

DNR maintains records of the uses of aquatic lands. These records are in GIS form, and in the form of “plates” in the Records Division. These records are public. By consistently updating the uses of state-owned aquatic lands, as they change, DNR’s Land Managers are better informed about what aquatic lands are currently being used, and which parcels are open for leasing. It is in the U.S. Navy’s best interest to keep DNR informed of any areas located on state-owned aquatic lands which it expands into, or wishes to restrict from any types of normal leasing activities. Please contact: David Roberts, Assistant Region Manager, (360) 854-2805.

**DNR requests a review of expendable materials as marine debris**

This past year, the state legislature placed a renewed emphasis on the need to remove marine debris from Washington waters and aquatic lands. DNR is responsible for the removal of marine plastic debris, under Chapter 79.145 of the Revised Code of Washington.

First, DNR appreciates that the U.S. Navy works to recover and re-use training materials, particularly training targets. DNR’s questions are more towards those materials that the Navy cannot retrieve, and whether a possibility exists for those materials to float on a current or wave out of the NWTRC’s jurisdiction, and into a nearshore area not under the U.S. Navy’s authority. DNR asks this question based upon this statement from Section E.S. 1.5.3.1., where a discussion of expendable material in the offshore area ends with a conclusion that it may “wash ashore” (inshore area) as “flotsam:”

“While these items represent persistent seabed litter, their strong resistance to degradation and their chemical composition mean that they do not chemically contaminate the surrounding environment by leaching heavy metals or organic compounds. Expendable material that sinks to the sea floor would gradually degrade, be overgrown by marine life, or incorporated into the sediments. Floating nonhazardous expended material may be lost from targets and would either degrade over time or wash ashore as flotsam.”

Because of the current concern surrounding marine debris, DNR must ask for a more thorough review of expendable materials that could potentially end up in the inshore area (nearshore) – including the impacts and removal methods. The U.S. Navy has addressed potential impacts for the offshore area, including entanglement (page 3.8-15), but it remains unclear why even after admitting these materials could wash ashore, no analysis was included for the nearshore habitat and associated fauna.

Some questions to consider: should marine debris occur in the nearshore area associated with expendable materials, would funding be provided to state or local groups for removal or would the U.S. Navy coordinate clean up? Would areas be monitored to see if expendable materials were accumulating, particularly since there is no intention to collect certain types of targets, or parachute materials?

**DNR requests clarification on the Killer Tomato Targets**

The Killer Tomato targets are made out of plastic (urethane). If these targets become “expendable material” and wash ashore into DNR’s jurisdiction, they will be considered plastic marine debris which DNR is technically responsible for removing. This is particularly of interest to DNR, as Alternative 2 (preferred) shows that the use of these targets will increase to 120 from 60 (No Action).

The sections which reference the plastic Killer Tomato targets need clarification. Page 3.3-18 states “A ‘Killer Tomato’ is a large, inflatable, plastic target that can be towed or left stationary.” This leaves the reader ambiguous about removal. Discussion of the Killer Tomato is found briefly in the “Targets and Countermeasures” tables in the Alternatives Analyses, but again it remains unclear what happens to this target.

**Table 3.3-25:** “Almost half of the targets and countermeasures under Alternatives 1 would be marine markers that are consumed by chemical reactions that produce smoke. Most of the remaining targets and countermeasures are constructed of inert materials and are recovered after use. Should they be lost at sea, they will become buried in bottom sediments or wash up onshore.”

This paragraph leads us to conclude that Killer Tomatoes would become buried or wash up onshore.

**Table 3.3-33:** "Almost half of the targets and countermeasures under Alternatives 1 would be marine markers that are consumed by chemical reactions that produce smoke. Most of the remaining targets and countermeasures are recovered after use. Those that are not are constructed mostly of inert materials."

This paragraph leads us to conclude that these would be recovered.

Clarifying these sections would assist DNR in understanding what our agency's role would be should the recovery of marine plastic debris associated with the U.S. Navy training activities be necessary.

In closing, DNR looks forward to working with the Navy as it works to improve its training range. Thank you for the opportunity to comment.

Sincerely,



Rich Doenges  
Division Manager  
Aquatic Resources Division

cc: Michal Rechner, Policy Unit, Aquatic Resources Division  
Elizabeth Ellis, Policy Unit, Aquatic Resources Division  
David Roberts, Orca Straits District, Aquatic Resources Program

Naval Facilities Engineering -

I strongly urge you to stop all Naval warfare testing exercises in our oceans especially here in the North West! The decimation of our oceans and all its life is far more detrimental to our existence than that of human war! Without life in our oceans - there is no life on our planet!  
Game over!

Rain Waters  
17855 Oklahoma Ln  
Fair Oaks Ca 95637  
707 964.3932

**United States Navy  
Public Hearing Comment Form  
Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement**



Please record your comments on the Northwest Training Range Complex (NWTRC) Draft Environmental Impact Statement / Overseas Environmental Impact Statement (EIS/OEIS) on this form.

You may submit your comments by:

- 1) Submitting your comments via the project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com)
- 2) Mailing this form to:

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below.

All comments must be received no later than April 13, 2009, to be considered in the Final EIS/OEIS.

Name: beverlea weaver, ma

Organization/Affiliation: \_\_\_\_\_

Address: \* po box 1679 \_\_\_\_\_

City, State, Zip Code: Willits, CA, 95490

Comments: I am opposed to any sort of weapons or military training by the navy off of the Pacific Northwest coast.

This activity threatens marine life, the environment and human beings. I am opposed to war of any sort. Thank you for considering my comment.

\_\_\_\_\_  
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\_\_\_\_\_

*Ruth Weiss*  
box 535 Albion  
California 95410  
(707) 937-5619

NAVAL PAC. ENG. COMMAND  
N.W.  
1101 TAUTOG CIRCLE - SUITE 203 April 13 2009  
SILVERDALE, WASH 98315

ATTN: MRS KIMBERLY KLER

It is imperative that the Navy withdraw its application for a permit from NOAA to "take" any marine life in its proposed plan of warfare testing on the Pacific Coast. If, as the Navy states, that it will not harm the marine habitat or any other marine life, why does it need a permit. there is something inconsistent here.

The Ocean must be protected from all toxic chemicals for not only marine life, but all the inhabitants of the land who are dependant on the Ocean for food, economic survival, etc. a healthy environment makes for useful citizens.

Best  
*Ruth Weiss*  
ruth weiss

United States Navy  
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 ATTN: Mrs. Kimberly Kler - NWTRC EIS

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Name: Gabrielle Welford, Ph.D. *Mendocino Environmental Center*  
 Organization/Affiliation: University of Hawaii at Manoa, Round Mt. Ranch *(near town)*  
 Address: 1201 Pauwahi Rd.  
 City, State, Zip Code: Ukiah CA 95482  
 Comments: I lived in O'ahu, Hawaii from 1993 to 2007, studying and working at the University of Hawaii. In that time, I watched a progressive increase in the takeover of land, sea, and people by various branches of the military. 25% of land on O'ahu is now occupied by the military. The ocean is similarly impacted, despite a constant protest and fight against this. I foresee a similar progressive increase in military presence on the land, sea & among people in our neighborhood. The degradation, poisoning, burning, loss of species, that has occurred & is occurring in Hawaii will also occur here. I strongly urge all concerned to stop this plan. A good friend of mine in Hawaii works

*Harbor  
 (burned)  
 Males  
 (if you ever see)  
 Mo Ka Pili  
 (pauwahi)  
 Pahaulea  
 Kahoolawe  
 (no top soil left, water table cracked, munitions, live & spent, still scattered & buried everywhere)*

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

as a marine biologist for NMFS, & ~~was~~ is going by my conversations with him, we cannot trust their reports either. *(over)*

Research by NMFS is limited in effectiveness (never mind that they are a government entity with "interests" of their own). My friend, who is fairly high up in NMFS on O'ahu, told me that very little definite is known about the habits, travels, etc., of fish ~~and other marine mammals~~, marine mammals, birds, etc. Research has huge gaps.

I am aware that military training is not just for some unspecified war off in the future. In Hawaii, training of all sorts is being used specifically to kill, maim, & indelibly harm people in (at this moment) Iraq, Afghanistan, Pakistan ("by mistake"). Let this not be so here. ~~Additionally~~ I am completely opposed to this military expansion.

United States Navy  
Public Hearing Comment Form

Northwest Training Range Complex  
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Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

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All comments must be received no later than ~~February~~ <sup>March</sup> 11, 2009, to be considered in the Final EIS/OEIS.

Name: DAVID WELLS

Organization/Affiliation: \_\_\_\_\_

Address: 2390 NIELSEN ROAD

City, State, Zip Code: TILLAMOOK OR 97141

Comments:

~~IF~~ I would like to see the ~~ship~~ ship sinking exercises held in places where recreational divers can see them, increasing tourism

~~IF~~ No depleted or DU shells should be used for the training exercises.

I support increasing use up to the Alternative 1 but the 2nd Alternative looks like it would leave to many waste mountains off Oregon and Washington

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

NFECN - NOAA  
Public Comment  
1101 Tautog Circle, Ste 203

Re: SAVE The Whales!  
4/7/09

Dear Kim Kier, NWTRC, I OBJECT, NO!  
The proposed use of whale  
Sect. 7. endangered species habitat for 10,000+ SONAR  
10K Buoys, and sonic explosions, impacts on whales critical  
SAFETY. Migratory Area is illegal + UNACCEPTABLE.

Whales are mammals, they breathe Air, like humans, they are living dinosaurs, living history, we can not destroy them based on FEAR.

The Military does not have the right to Section 7 Seven Endangered Species Act is operational now, AGAIN under OBAMA (Demo).

I can see the whales blow Air from my house, what will happen to them?

Who will protect them from the military?

No, NO WAY, it's Illegal.

Time to confront Reality, we are not Republicans. The Democrats control both houses of Congress AND the Presidency, The plutocratic military industrial complex is a broken model.

We can not afford WAR + military. Stop the FEAR propaganda.

NO, NO MORE Destruction!

Sincerely, John J. Wheeling  
P.O. Box 2652  
Fort BRAGG, CA. 95457

3 April 2009

Naval Facilities Engineering Command  
NWTRC-EIS/OEIS

Dear Sirs,

The alternatives offered by the Navy for expanded training in the Northwest Training Complex do not provide adequate protection for humans, animals and the environment.

I ask the Navy to rework the draft EIS to include the following modifications:

Eliminate all use of depleted uranium by the Navy.

Bann at-sea dumping practices.

Exclude the Olympic Coast National Marine Sanctuary from training use.

Adopt the most stringent rules to be applied in Haro Strait and Puget Sound to protect cetacean safety zones there.

As a retiree with some 30 years in Navy and Air Force ICBM manufacture, I believe the testing of the new ordinance is best done at the place of manufacture. Additional testing may be done realistically in more industrial areas of the Puget Sound and elsewhere. The location of this testing near the Victorian Seaport of Port Townsend, the Ebbeys Landing Reserve on Whidbey Island and the San Juan orca feeding grounds should be reconsidered.

Thank you for considering this letter.

Yours truly,

Alex A. Wickham, Alex A. Wickham, 305 R St, Port Townsend, WA 98368

CAPITOL OFFICE  
STATE CAPITOL ROOM 4081  
SACRAMENTO, CA 95814  
TEL (916) 651-4002  
FAX (916) 323-6958

# California State Senate

SENATOR  
PATRICIA WIGGINS  
SECOND SENATE DISTRICT



April 13, 2009

STANDING COMMITTEES:  
PUBLIC EMPLOYEES  
RETIREMENT  
CHAIR  
BANKING, FINANCE &  
INSURANCE  
ENERGY UTILITIES &  
COMMUNICATIONS  
SELECT COMMITTEES:  
CALIFORNIA'S WINE INDUSTRY,  
CHAIR

Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

RE: Northwest Training Range Complex

These comments are in response to the request for public comment on the DEIR for the Northwest Naval Testing Grounds, which range as far south as Humboldt County, California. As State Senator for both Mendocino and Humboldt Counties, it is my duty to represent those of my constituents who have voiced significant opposition to the Navy's plans, both of the process for review and the contents of the DEIR.

Regarding the process for review, I strongly encourage the Navy to re-notice the public in areas that would be affected by its actions.

Mendocino County, specifically, while out of the direct area of impact, has an economy which includes whale and marine mammal viewing as a tourism draw. This is regionally critical to both economy and identity, and could be affected by the Navy's actions relative to gray whales and other marine mammals. Gray whales are of particular importance, because they are a rebounding migratory species with a range including both Mendocino and the project area.

Regarding the contents of the DEIR, I would echo the comments of the Natural Resources Defense Council on the issue of alternatives. The no-project alternative was the status quo, which is itself a project. A cessation of testing needs to be considered as well.

The result needs to be a management regime established for the protection of the whales, marine mammals and fishes as a critical objective because of the communities which depend on them. California's coastal regime presently includes Marine Protected Areas, National Marine Sanctuaries, all designed to enhance its protection. These elements are the building blocks of a well planned coast and ocean, including blue whale and orca populations native to the project area.

The Navy's projects are an important element of national security, which I strongly support. It is my belief that we need not give up reasonable notice and cumulative impact assessment in the name of that security.

Sincerely,

PATRICIA WIGGINS  
Senator, 2nd District

VALLEJO DISTRICT OFFICE  
444 GEORGIA STREET  
VALLEJO, CA 94590  
TEL (707) 648-5312  
FAX (707) 648-5383

NAPA DISTRICT OFFICE  
1040 MAIN STREET, SUITE 205  
NAPA, CA 94959  
TEL (707) 224-1990  
FAX (707) 224-1992

SANTA ROSA DISTRICT OFFICE  
50 D STREET, SUITE 120A  
SANTA ROSA, CA 95404  
TEL (707) 576-2771  
FAX (707) 576-2773

UKIAH DISTRICT OFFICE  
P.O. BOX 785  
UKIAH, CA 95482  
TEL (707) 468-8914  
FAX (707) 468-8931

EUREKA DISTRICT OFFICE  
710 E STREET, SUITE 150  
EUREKA, CA 95501  
TEL (707) 445-6508  
FAX (707) 445-6511

Printed on Recycled Paper



**United States Navy  
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Northwest Training Range Complex  
Environmental Impact Statement /  
Overseas Environmental Impact Statement



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1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

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Name: JANINE Wilcox

Organization/Affiliation: NONE

Address: PO Box 117

City, State, Zip Code: Whitethorn, CA. 95589

Comments: I say do it. What is more important, protecting citizens like me or an animal. I say me a citizen.

I think this training can be done with sensitivity with citizen in mind.

We aren't all left wingers here on the west coast.

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information.

\*Provide your mailing address to receive future notices about the Northwest Training Range Complex EIS/OEIS.

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Name: Adam Williams

Organization/Affiliation: Teacher

Address: PO Box 1106

City, State, Zip Code: Ukiah CA 95482

Comments: My comment is that

science does not seem to be playing a significant enough role in the decision making process on behalf of the Navy. Our environment & ocean are undeniably in decline. The biggest threat we need protection from is pollution & corporate greed. Our biggest "enemies" are those who threaten the basic life support systems like the ocean itself. What are we protecting?

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\*Provide your mailing address to receive future notices about the Northwest Training Range Complex EIS/OEIS.

Feb 12, 2009

Navy Facilities

DO NOT EXPAND TESTING

WE WANT OPEN GOVERNMENT

+ FULL DISCLOSURE OF DEATHS OF MARINE MAMMALS SUCH AS THE WHALES THAT DIED IN FLORENCE YEARS AGO.

NO SONAR, NO EXPANSION

The ocean is not yours to bomb, explode exploit + kill. STOP!

Janet Wilkinson

Feb 10, 2009

Dear Paul Engemann,

We oppose bombing our Oceans, putting our

sea mammals.

Your proposal a whale was killed in

frequency. Don't use sonar. Don't

increase testing along the coast.

MARY G. WITSE Yorkville, NY

United States Navy  
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 Silverdale, WA 98315-1101  
 ATTN: Mrs. Kimberly Kler - NWTRC EIS

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Name: Carol Wolman M.D.  
 Organization/Affiliation: Green Party - 2008 Candidate for Congress (District 1)  
 Address: Po Box 1328  
 City, State, Zip Code: Menlo Park CA 94026  
 Comments: Our coast is still a wilderness area. This is precious to coastal residents, + also attracts tourists, who provide a major source of revenue to our local economy.  
What sort of visual, acoustic + pollutant impact will there be on coastal communities? Specifically will there be sonic booms, helicopters buzzing, artillery clutter? Will we see ships, planes, flashes from weapons firing? What will the NTRC do to the wilderness? What does sonar do to marine mammals?  
Many species migrate along the Northern Pacific Coast - not just whales, but also birds, butterflies, other marine animals. Can you guarantee that these migratory routes will not be disrupted? Finally, will the Navy suspend sonar operations while the gray whales migrate?

Visit [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com) for project information. are migrating?

Carol Wolman, M.D.

April 4, 2009

To Whom It May Concern :

Expansion of Naval testing areas in the Pacific Northwest concerns me for many reasons:

- 1) There are unknown long-term effects of modern equipment on sea life - ie. sonar, chemicals, etc. Expansion could further erode habitat. In an era of global decline this approach is not consistent with best practices for habitat preservation.
- 2) IF damage has been done, preserving areas not exposed to testing would be beneficial in preserving areas of refuge and protecting delicate ecosystems.
- 3) It is the cumulative effects of environmental erosion that are causing serious global problems - expansion during a time of known challenges contributes to the problems and does not preserve and protect our sea and coastline.

4) I have observed the retreat of Sierra Nevada glaciers over the last 50 years. At first it was a mystery that they were shrinking, then a concern, and now most are gone. We didn't know 50 years ago there could be a problem. Now Sierra habitats depending on the glaciers are depleted. Not recognizing serious consequences, and not taking steps to prevent them, is not responsible behavior.

We don't want our wonderful resources to dry up and disappear while we are ever-expanding testing to protect those resources.

Thanks for reading my comment.  
Yours,

Melissa Wuolte

208 E. Valley St  
Willits, CA 95496

Ms. Melissa Wuolte  
208 E Valley St  
Willits, CA 95496

Naval Facilities Engineering  
Command Northwest  
1101 Taulog Circle, Suite 203  
Silverdale, WA 98315-1101  
Attn: Mrs. Kimberly Kier  
NWTRCETS

19364 SE Summertime Dr.  
Sandy, OR 97055  
February 11, 2009

Dear Mrs. Kier:

I am opposed to the plan to do Naval maneuvers off the west coast because of the potential disruption of the whale migration and feeding. The whales are an important part of our ocean system, and important to us in Oregon. Any risk to them is significant, especially those species whose populations have been documented as declining. Oregon has a whole system of education and viewing based on whale movements. There is also documentation about the sonar effects on whales. Don't do it!

Sincerely,  
Jean M. Wolfe M.D.

United States Navy  
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Silverdale, WA 98315-1101  
ATTN: Mrs. Kimberly Kler - NWTRC EIS

Please check the box if you would like to receive a CD copy of the Final EIS/OEIS. Provide your mailing address below

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Name: Gayle Zepeda  
Organization/Affiliation: Redwood Valley Little River Band of Pomo Indians  
Address: 1014 Redwood Dr.  
City, State, Zip Code: Redwood Vly. CA 95470  
Comments:

I oppose the U.S. Navy's proposed plan for weapons testing in the ocean, in the air and on land in the Pacific Northwest.

I am concerned about the environmental impact to ocean life (plant/animal). As a local Native American, I'm concerned about the delicate balance of the ecosystems in the area.

I request Congress to halt this action until further environmental impacts can be addressed in mitigation.

Sincerely,  
Gayle Zepeda

13 MARCH 2009

Re: PUBLIC COMMENT ON  
TRAINING OFF PACIFIC COAST

COMMENT:

PLEASE DEVELOP THE  
NEXT-GENERATION SONAR.

THE CURRENT STUFF  
SEEMS TO BOTHER  
SEA CREATURES.

THE NEXT LEVEL  
OF SONAR SHOULD

THANK YOU!

☺

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# Appendix I

## Public Hearing Transcripts



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NAVY'S NORTHWEST TRAINING RANGE COMPLEX DRAFT EIS/OEIS

OPEN HOUSE and PUBLIC HEARING

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January 27, 2009  
5:00 p.m.

Oak Harbor School District Office  
ASC Board Room  
350 S. Oak Harbor Street  
Oak Harbor, WA 98277

NORTH SOUND REPORTING - Ph. 360-629-2193 Fax 360-629-0490  
32112 24th Avenue N.W., Stanwood, WA 98292

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A P P E A R A N C E S

Moderator:

Lewis Michaelson

Executive Officer:

Commander Matthew Miller

Project Manager:

Mr. John Mosher

Reported by: Leslie A. Andres, CCR 2489

North Sound Reporting

NORTH SOUND REPORTING - Ph. 360-629-2193 Fax 360-629-0490  
32112 24th Avenue N.W., Stanwood, WA 98292

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32112 24th Avenue N.W., Stanwood, WA 98292

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BE IT REMEMBERED that on the 27th day of January 2009, beginning at the hour of 5:00 p.m. of said day, the following proceedings were had in the City of Oak Harbor, County of Island, State of Washington, the proceedings were taken before Leslie Andres, a Notary Public in and for the State of Washington.

WHEREUPON, the following proceedings were had and testimony given, to wit:

WHEREUPON, the following two speakers spoke one-on-one with the court reporter during the Open House period:

MS. MORRIS: My name is Linda Morris, M-o-r-r-i-s. In terms of the use of the depleted uranium and tungsten heavy metal, any other heavy metals and/or sonar devises, I and the public don't know what the current level of those, the usage of those substances and devises are. And there's a request for further use of or increased use of these sources, these substances. And I don't think that we have enough documentation as to the effects that they have on life in terms of serious medical problems, or

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32112 24th Avenue N.W., Stanwood, WA 98292

1 what they do to marine mammals.

2 So I believe that we should not increase the usage  
3 of any of these until we know more research, until we  
4 have more information about what the effect is on  
5 marine mammals and human life. That's one comment.

6 And the other comment is, this is a separate  
7 issue, is there is the issue of proposed increased use  
8 of training programs in marine sanctuaries. And I  
9 believe that the important word here is sanctuaries,  
10 and I don't believe a sanctuary is a place for any kind  
11 of use of weapons and violence. And you know, the  
12 sanctuary of thinking of it in terms of a church is a  
13 place where people can go to be safe. And I believe  
14 it's the same thing in a marine sanctuary, the marine  
15 mammals and marine life needs to be safe, and this is  
16 in contradiction to what the Navy wants to do.

17 Thank you.

18 MS. DEWINTER: My name is Wendy Campbell  
19 DeWinter. I have a request. My request is that the  
20 Navy, when they're going to put on a presentation, that  
21 they actually notify us. In other words, the two  
22 papers on the island that I have been told they used  
23 for notification are not read. The circulation for  
24 those two papers is three thousand something respective  
25 for each end of the island. Sound Publishing owns both

NORTH SOUND REPORTING - Ph. 360-629-2193 Fax 360-629-0490  
32112 24th Avenue N.W., Stanwood, WA 98292

1 the papers. And the circulation is in the neighborhood  
2 of three thousand something for each of those papers.

3 Now, the city of Oak Harbor has over seventy  
4 thousand people by itself, and I'm not in the  
5 population of the city of Oak Harbor, I'm north of Oak  
6 Harbor, so the island population is a lot larger than  
7 seventy thousand.

8 So I'm requesting that -- I understand that they  
9 did some radio probably PSAs, and the radio station  
10 that we have that's local is just in the process of  
11 losing its license, it lost -- its owner died last  
12 year, and the kids who have taken it over are trying to  
13 run it into the ground, so nobody is listening to that  
14 either. But there is the Marketplace newspaper out of  
15 the south end of the island, and it is an amazing  
16 paper, it goes to every mailbox on the island, and it  
17 would be a great release for the Navy to put in a  
18 display ad that could be seen by everyone. Maybe they  
19 could put in a classified, you know, something.  
20 So that's my request. That's my comment. Thank  
21 you very much.

22 (Recess.)

23  
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32112 24th Avenue N.W., Stanwood, WA 98292

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P R O C E E D I N G S

MR. MICHAELSON: Good evening, and thank you for coming tonight. My name is Lewis Michaelson, and I will be the moderator for tonight's hearing on the Navy's Northwest Training Range Complex, Draft Environmental Impact Statement, Overseas Environmental Impact Statement, or Draft EIS.

Here to receive your comments are Commander Matthew Miller, Executive Officer of Naval Air Station Whidbey Island, and Mr. John Mosher, the project manager from the Navy's Pacific Fleet. Mrs. Kimberly Kler, the project coordinator from Naval Facilities Engineering Command, Northwest -- there she is, she waved to everybody, good, thanks -- is also present and is the primary point of contact for sharing your written comments about this project. Let's go ahead and look at the agenda for tonight.

Hopefully you all had the opportunity to talk to the many knowledgeable experts and program officials who are staffing the exhibits during the open house.

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The primary purpose for this portion of the hearing is for the panel members to listen to your comments firsthand. They will not be answering questions during this phase of the proceedings. Comments and questions will be addressed in the Final EIS.

After I finish this introduction, Commander Miller will give a brief overview of the Navy's activities in the Northwest Training Range Complex.

Next Mr. John Mosher will brief you on the environmental impact analysis process and summarize the results reported in the Draft EIS. Mr. Mosher is the EIS project manager for the U.S. Navy.

The last item on the agenda, however, is really the most important. The public comment session is your opportunity to provide information and make statements for the record.

Your input ensures that the decision makers can benefit from your knowledge of the local area, and any environmental effects that you think may result from the proposed action or alternatives.

Keep in mind that the EIS process is intended to ensure that decision makers will be fully informed about the potential environmental impacts associated with the various alternatives before they decide on a course of action.

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1 Please also remember that comments on issues  
2 unrelated to this EIS are beyond the scope of this  
3 hearing.

4 To request an opportunity to make a verbal comment  
5 during tonight's hearing, please fill out a verbal  
6 comment sheet that looks like this, it's available at  
7 the registration, and people are waving them right now  
8 if you want to speak. And if you haven't filled one  
9 out yet, just raise your hand and they will hand you  
10 one and then you can hand it back to them. Thank you.

11 Every speaker, including public officials,  
12 organizational spokespersons and private individuals  
13 will have four minutes each to provide his or her  
14 comment.

15 If you don't feel comfortable standing up here  
16 tonight to make a statement, you have until February  
17 11, 2009 to submit a written statement for  
18 consideration in the Final EIS, or you can wait until  
19 tonight's public comment session that we're doing right  
20 now is over and you can provide your comments privately  
21 to the court reporter seated to my left one-on-one.

22 Keep in mind that written comments are given the  
23 same consideration as verbal comments offered here  
24 tonight.

25 And now it's my pleasure to introduce Commander

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1 Miller.

2 COMMANDER MILLER: Thank you, Lewis.

3 Welcome to the public hearings for the Northwest  
4 Training Range Complex Draft Environmental Impact  
5 Statement.

6 My name is Commander Matt Miller, and I am the  
7 Executive Officer of Naval Air Station Whidbey Island.

8 I want to thank you on behalf of the United States  
9 Navy for attending this evening. This is one of five  
10 public hearings the Navy is holding in Washington,  
11 Oregon and Northern California for the Northwest  
12 Training Range Complex Draft EIS.

13 As Lewis mentioned, we hope that you've had a  
14 chance to visit the poster stations this evening and  
15 meet with the Navy project team members.

16 A little of my background, I've been wearing a  
17 Navy uniform for over 26 years, 21 years as an active  
18 duty naval officer. I've been the Executive Officer of  
19 Whidbey for about a year.

20 Before that I was the operations officer.

21 Before that I spent two years on the Abraham  
22 Lincoln at Naval Station Everett, assigned there.

23 And before that back at Whidbey as an instructor  
24 at the electronic attack weapons school as a Prowler  
25 Tactics Instructor.

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1 My background, I'm a carrier aviator, about 2,000  
2 hours flying jet aircraft, first in the Intruder as a  
3 bombardier navigator and as electronic countermeasures  
4 officer, now in the Prowler that still flies at  
5 Whidbey.

6 Again, originally from Silver Spring, Maryland,  
7 graduate of the University of Maryland, but I've been  
8 in the northwest for almost ten years, and I'm not  
9 leaving, so I like it here. I'm an east coast  
10 resident, and now I'm here for good. So that's me.

11 And at the conclusion of this presentation, you  
12 will have an opportunity to make oral comments  
13 regarding the content of the environmental analysis.  
14 Written comments, like Lewis said, will be accepted  
15 tonight and throughout the comment period, which closes  
16 on February 11, 2009.

17 The Northwest Range Training Complex is a military  
18 training area that has been in use by the Navy since  
19 World War II. It is comprised of two primary  
20 components, the Offshore Area and the Inshore Area.

21 The mission of the Northwest Training Range  
22 Complex is to serve as the principal backyard training  
23 range for those units homeported in the Pacific  
24 Northwest area, including surface ship, submarine,  
25 aviation and Explosive Ordnance Disposal units located

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1 at Naval Air Station Whidbey Island, Naval Station  
2 Everett, Puget Sound Naval Shipyard, Naval Base  
3 Kitsap-Bremerton, and Naval Base Kitsap-Bangor.

4 The Northwest Training Range Complex also supports  
5 military units from outside the range complex area,  
6 such as Naval Special Warfare units, and meets their  
7 training requirements.

8 The Northwest Training Range Complex includes  
9 ranges, training areas and air space that extend west  
10 to 250 nautical miles beyond the coast of Washington,  
11 Oregon and Northern California, and east of the  
12 Washington/Idaho border.

13 The Offshore component of the Northwest Training  
14 Range Complex encompasses 122,400 square nautical miles  
15 of air, surface and subsurface ocean training areas.  
16 The Inshore component includes about 875 acres of land  
17 on Whidbey Island and Indian Island, with more than  
18 12,000 square nautical miles of Special Use Airspace,  
19 and surface and subsurface training areas within the  
20 Puget Sound.

21 Military activities currently conducted in the  
22 Northwest Training Range Complex can be divided into  
23 primary mission areas as listed here. Some examples  
24 you read off of there, anti-air warfare, mine warfare,  
25 electronic combat, that's my area of expertise, strike

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1 warfare as well.  
2 To accomplish the mission in the Pacific  
3 Northwest, it is critical for the Navy to maintain and  
4 operate the necessary facilities and to provide these  
5 critical training areas to U.S. Navy commands so that  
6 forces can train realistically.

7 Realistic training ensures U.S. Navy personnel  
8 maintain the highest level of readiness and capability  
9 and is the single greatest asset the military has in  
10 preparing and protecting American servicemen and women  
11 to defend the nation. There is no such thing as  
12 "routine" training when it comes to practicing combat  
13 skills.

14 To ensure Navy forces are fully ready prior to  
15 deployments requires specialized ranges where military  
16 personnel can learn through practical hands-on  
17 experience, the technical skills necessary to  
18 effectively plan and conduct operations. Continuing  
19 technological advancements also require more complex  
20 and varied testing and training scenarios to be able to  
21 combat new threats.

22 The ranges, facilities and installations of the  
23 Northwest Training Range Complex are unique, and  
24 provide training opportunities essential for the safety  
25 and readiness of military personnel and the success of

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1 the military mission.

2 Environmental stewardship is a priority goal of  
3 the Navy during mission training activities.

4 The Navy is committed to protecting the physical  
5 and natural environment and has established a  
6 successful track record of environmental stewardship  
7 while completing our mission.

8 To accomplish our environmental stewardship goals,  
9 the Navy implements protective measures on land and at  
10 sea to reduce potential effects to the terrestrial and  
11 marine environment, and ensure public safety and  
12 accessibility.

13 I will now turn the presentation over to John  
14 Mosher from the U.S. Pacific Fleet, who will tell you  
15 about the Navy's Proposed Action for the Northwest  
16 Training Range Complex and give you an overview of the  
17 Draft EIS and the environmental analysis process.

18 John.

19 MR. MOSHER: Thank you, Commander.  
20 My name is John Mosher, and I'm the project  
21 manager for the Northwest Training Range Complex  
22 Environmental Impact Statement. I'm here tonight to  
23 give you an overview of the findings contained within  
24 the Draft EIS.

25 The Draft EIS was prepared by the U.S. Navy to

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1 comply with both the National Environmental Policy Act,  
2 or NEPA, and Executive Order 12114, which requires  
3 federal agencies to consider the environmental effects  
4 of their activities that occur outside of U.S.  
5 territorial waters. The Draft EIS represents  
6 compliance with these environmental statues and is an  
7 important part of the Navy's overall commitment to  
8 environmental stewardship as it tests and trains.

9 The Navy is the lead agency for the EIS. The  
10 National Marine Fishery Service is a cooperating agency  
11 pursuant to federal regulations, in addition to their  
12 role as a regulator. As a cooperating agency, they  
13 provide early review of the Proposed Action,  
14 alternatives and analysis methods. As a regulator,  
15 they help to ensure that the EIS and the Proposed  
16 Actions are in full compliance with appropriate  
17 environmental laws and regulations.

18 This slide lists all of the actions that the Navy  
19 is proposing to conduct that are analyzed in the Draft  
20 EIS. Not all of the actions are included in each  
21 alternative. Over the next three slides, I will  
22 discuss which actions are included in each of the  
23 alternatives.

24 The Proposed Action is needed to provide a  
25 training environment consisting of ranges, training

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1 areas and range instrumentation, with the capacity and  
2 capabilities to fully support required training tasks  
3 for operational units in military schools. The  
4 Proposed Action supports the overall Navy mission as  
5 required by federal law.

6 Under the No Action Alternative, training and  
7 testing activities would continue at current levels.  
8 This alternative would not accommodate increased or new  
9 training activities, and the range investments and  
10 enhancements would not be implemented.

11 This alternative provides a baseline for assessing  
12 the potential environmental effects of the other  
13 alternatives.

14 Alternative 1 is a proposal designed to meet Navy  
15 and Department of Defense current and near-term  
16 training requirements.

17 This alternative includes an increase in training  
18 activities currently conducted, and accommodates force  
19 structure changes associated with the introduction of  
20 new weapon systems, vessels and aircraft into the  
21 Fleet. These include:

22 The EA-18G Growler Aircraft,  
23 SSGN Guided Missile Submarine,  
24 P-8A Multimission Maritime Aircraft and  
25 Unmanned aerial systems.

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1 Alternative 2 is also designed to meet current and  
2 near-term training requirements.

3 It includes all activities identified under  
4 Alternative 1; plus an increase in the level of  
5 training activities identified in level 1 -- in  
6 Alternative 1.

7 The implementation of range enhancements,  
8 including:

- 9 New air and sea surface targets,
- 10 The operation of air target services for
- 11 locally-based aircraft and vessels,
- 12 The development of an additional electronic
- 13 signal emitter,
- 14 The development of an underwater training
- 15 minefield, and
- 16 The use of a portable undersea tracking
- 17 range.

18  
19 Alternative 2 is the Navy's preferred alternative  
20 because it fully supports the type and frequency of  
21 activities required to achieve complete fleet  
22 readiness, and allows the Navy to carry out its mission  
23 in the Northwest Training Range Complex.

24 In preparing the Draft EIS, the Navy evaluated the  
25 potential effects of the alternatives to marine,

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1 terrestrial and the human environment.

2 We have taken a comprehensive approach in  
3 assessing the potential effects to physical, biological  
4 and socioeconomic resources.

5 We encourage you, if you haven't already, to  
6 review the Draft EIS which presents the findings of the  
7 Navy's environmental analysis for each of these  
8 resource areas.

9 The Navy's use of active sonar and explosives puts  
10 sound in the marine environment. While preparing the  
11 EIS, Navy scientists qualitatively and quantitatively  
12 analyzed the potential effects of sound in the water to  
13 marine life, including marine mammals, sea turtles,  
14 fish, seabirds and marine invertebrates.

15 The method for determining potential sound  
16 exposure to a marine animal was jointly developed by  
17 the Navy and the National Marine Fisheries Service, and  
18 represents the best science currently available.

19 Marine mammal species have widely varying  
20 sensitivities to sounds based on frequency. This is a  
21 reflection of how different species have evolved to  
22 cope with life in a marine environment, including  
23 differences in size, prey, habitats, and the predators  
24 they try to avoid.

25 Using the five general steps listed here, the Navy

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1 was able to calculate the number of potential marine  
2 animal exposures to sound from active sonar and  
3 explosives. Section 3.9 of the Draft EIS provides the  
4 results of the computer model as it relates to the  
5 potential annual exposures of marine animals.

6 Marine animal sensitivity was determined by  
7 biologists from the National Oceanic and Atmospheric  
8 Administration, and that information was entered into  
9 the computer model. Marine animals can react  
10 differently to sounds. For example, the harbor  
11 porpoise found off the coast is very skittish.  
12 Therefore, sounds that are lower in volume will cause  
13 them to startle which sooner than other cetaceans.

14 While there is the possibility for non-lethal  
15 impacts and altered behavior from the use of active  
16 sonar and sound associated with explosives, no  
17 mortality to marine mammals is anticipated. In  
18 addition, the estimation of sounds exposures does not  
19 consider the use of protective measures, such as sonar  
20 safety zones, which would reduce the likelihood of  
21 exposures at the highest sound levels.

22 No significant impacts to sea turtles, fish,  
23 seabirds or marine invertebrates are anticipated from  
24 the use of active sonar.

25 The use of explosives in Navy activities may

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1 result in injury or mortality to individual fish or  
2 seabirds in the immediate area; however, these  
3 activities would not result in significant harm to  
4 overall bird or fish populations or habitat.

5 Given the relatively low number of explosive  
6 detonations associated with the Proposed Action, no  
7 significant impact to marine invertebrates are  
8 anticipated. Also, the low occurrence of sea turtles  
9 in the Range Complex makes the potential for  
10 significant impacts to sea turtles unlikely.

11 Additionally, protective measures are used during  
12 underwater detonations to reduce the potential effects  
13 to the environment.

14 The Navy does not expect to harm marine mammal  
15 populations, but it recognizes that there may be  
16 potential effects to individual marine mammals.

17 To help guard against harming individual whales or  
18 other marine mammals during training, the Navy has  
19 developed protective measures, including:

20 Posting a minimum of three well-trained lookouts  
21 24 hours a day.

22 Establishing a safety zone during training  
23 exercises using mid-frequency active sonar.

24 Sonar is powered down if a marine mammal enters  
25 the 1,000 yard safety zone, and the sonar is

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1 powered off if a marine mammal enters within two  
2 hundred yards of a sonar dome.

3 The Navy also coordinates with the National Marine  
4 Fisheries Service and reports marine mammals  
5 sighted during major exercises.

6  
7 The Navy implements these protective measures in  
8 all of its range complexes, including the Northwest  
9 Training Range Complex.

10 Over the past five years, the Navy has funded more  
11 than 100 million dollars in marine mammal research.

12 A summary of the findings of the Draft EIS are  
13 presented here, using language required by  
14 environmental regulations.

15 For most of the resources analyzed in the Draft  
16 EIS, we found no significant impacts. In your review  
17 of the Draft EIS, four areas you may want to examine in  
18 more detail for species that may be affected by the  
19 Proposed Action are endangered species of listed fish,  
20 sea turtles, marine mammals and bird species.

21 The Navy is in consultation with the National  
22 Marine Fisheries Service and the U.S. Fish and Wildlife  
23 Service to ensure the effects to endangered or  
24 threatened species are listed -- or threatened species  
25 listed under the Marine Mammal Protection Act and the

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1 Endangered Species Act are minimized.

2 The Northwest Training Range Complex EIS also  
3 analyzed the potential effects of training -- of Navy  
4 training and testing activities on the human  
5 environment. The resource areas and issues analyzed  
6 include:

7 Cultural resources,  
8 Traffic,  
9 Socioeconomics,  
10 Environmental justice and the protection of  
11 children, and  
12 Public safety.

13  
14 Findings in the EIS show that no significant  
15 impacts to the human environment are likely from the  
16 implementation of the Proposed Action.

17 In addition, the Navy has initiated consultation  
18 with federally recognized Native American tribes and  
19 Nations in the Northwest Training Range Complex area.

20 The Navy is committed to protecting the physical  
21 and natural environments both on land and at sea and is  
22 actively engaged in numerous environmental protection  
23 measures and stewardship programs. These measures are  
24 integrated into mission training to minimize  
25 environmental effects from training and testing

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1 activities.

2 In addition to complying with NEPA and Executive  
3 Order 12114, the Navy also complies with other  
4 applicable Federal and environmental laws, including  
5 those listed here and all other applicable  
6 environmental laws and regulations.

7 The Navy has completed the first three steps of  
8 the NEPA process and we are now in the phase for  
9 providing public review of the Draft EIS.

10 To review progress so far: The EIS was initiated  
11 on July 31st, 2007 and the Navy held public scoping  
12 meetings in Washington, Oregon and Northern California  
13 in September of 2007.

14 Government agencies, organizations and the public  
15 were encouraged to submit comments at the scoping  
16 meetings, or to provide written comments throughout the  
17 public comment period. The comments received were  
18 considered in the preparation of the Draft EIS that  
19 we've discussed tonight.

20 We are now in the public hearing and document  
21 review step of the NEPA process. This phase is an  
22 essential part of the NEPA process, because it allows  
23 us -- allows the public to review the document and  
24 comment on the Navy's analysis of environmental  
25 effects. We encourage you to provide your input by

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1 February 11 so it can be considered for incorporation  
2 in the development of the Final EIS. All comments  
3 received will be considered.

4 The Navy's committed to keeping the community  
5 informed throughout the continued development of the  
6 Northwest Training Range Complex EIS. These public  
7 hearings are just one of many opportunities to share  
8 information about the EIS and, more importantly, to  
9 encourage your feedback and comments.

10 Now I will turn back to Lewis Michaelson to  
11 describe how to obtain more information and how to  
12 comment on the Draft EIS.

13 MR. MICHAELSON: Thank you.

14 In addition to holding these public hearings, the  
15 Navy has established a web site to make it easy for you  
16 to find and comment on environmental documents. The  
17 Draft EIS is posted to this web site. The web site  
18 also has additional background information and links to  
19 the fact sheets that are available here tonight.

20 An announcement I should have made earlier, we  
21 would appreciate it if everyone turns off their cell  
22 phones. I'll try to make it earlier in the evening  
23 next time.

24 You may also review the Draft EIS and other  
25 publicly available documents related to the Northwest

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1 Training Range Complex EIS by visiting the designated  
2 information repositories. The addresses of those  
3 physical repositories are provided in the comment fact  
4 sheet that you received when you came in tonight.

5 Both the information repositories and the project  
6 web site contain project documents, fact sheets and  
7 background information for your review.

8 The Navy welcomes your review and input on the  
9 analysis contained in the Draft EIS. And there are  
10 several ways to provide those comments.

11 Obviously we're accepting oral comments immediately  
12 after this presentation.

13 Written comments can be submitted by filling out a  
14 comment form and either dropping it in the drop  
15 box located at the registration table or mailing  
16 it to the address provided here, which is also  
17 listed on the fact sheets.

18 Comments may also be submitted electronically  
19 prior to the project web site at  
20 [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com).

21 That's also in the fact sheet.

22 All comments should be received by February 11,  
23 2009 to ensure that they are considered in the Final  
24 EIS.

25 We will now begin the oral comment portion of the

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1 public hearing.

2 To get an accurate record of what you have to say,  
3 please help me by respecting the following ground  
4 rules.

5 First, please speak clearly into the microphone at  
6 the lectern that's being set up for you right now,  
7 starting with your name and any organization you  
8 represent, if any.

9 Second, each person will be allotted four minutes  
10 to speak. Depending upon the number of speakers and  
11 the time remaining, I may be able to offer additional  
12 time for you for speak after that.

13 If you've prepared a written statement you may  
14 turn it into the registration table, or you may read it  
15 outloud, as long as you can do so within the 4-minute  
16 time limit.

17 Finally, please honor any request that I make for  
18 you to stop speaking when you reach the 4-minute time  
19 limit. In order to make that easy for you to know when  
20 it's about time to wrap up and you can end in a  
21 comfortable place, I will hold up this sign which  
22 indicates that you have 30 seconds remaining. That's  
23 why it's useful to occasionally look up from your notes  
24 and look at me, so that you can keep track of that.  
25 And then of course when we reach four minutes you will

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1 get the red sign that says "End." All right.  
2 I'll also read ahead the several speakers, instead  
3 of having to line up here you'll have an idea of where  
4 you're coming up in the rotation and can be ready to go  
5 when we get there.  
6 So let me me read the first several names in order  
7 in which you signed up.  
8 Steve Erickson will be first, followed by Marianne  
9 Edain, Netsah Zylinsky, Lorraine Bayes and Linda  
10 Morris. Mr. Erickson.  
11 MR. ERICKSON: I'm going to let Mary go  
12 first.  
13 MR. MICHAELSON: Okay.  
14 MS. EDAIN: I hardly intended to go first.  
15 My name is Marianne Edain, spelled E-d-a-i-n, and  
16 I'm representing Whidbey Environmental Action Network.  
17 My notes are in a jumble, so be it. I spent a  
18 good deal of time this evening trying to -- sorry about  
19 that, I'm short -- trying to get a definition out of  
20 various ones of you of what constitutes the literal  
21 zone. I haven't heard a definition.  
22 Since it is the intent of this to move from deep  
23 water into the literal zone, I believe it's rather  
24 important to know what that constitutes, and I would  
25 appreciate some discussion in your FEIS of what

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1 constitutes the literal zone, specific depths and  
2 specific distances from high tide.  
3 I heard from a number of people this evening "Oh,  
4 don't worry about that, we're not planning to do that  
5 right now."  
6 One of the basic rules of law is that one must  
7 construe every word of the document as if it meant  
8 something, so when I read that a particular proposal is  
9 going -- is being proposed, whether it is, there is the  
10 propermatic (ph. Sp.) and then there is the specific.  
11 When the program authorizes the specific, and the  
12 program in this instance is the EIS, or the EIS is for  
13 the program, then I have to assume that all of the  
14 specifics which are listed in that program are intended  
15 at some point, maybe not tomorrow morning, to be  
16 carried out. So don't tell me that "We're not planning  
17 that right now." I think that that was not a good  
18 thing, and people should realize that.  
19 I have not gone over the thousand plus pages of  
20 the EIS, I'll get there, but I have noticed that used  
21 expended materials are intended to be simply dumped.  
22 They will fall to the benthic zone and theoretically be  
23 covered with silt. That's not acceptable. That's  
24 absolutely not appropriate.  
25 Something that came up in the presentation is this

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1 portable tracking range. And one hopes it is defined  
2 somewhere in the EIS, because I have not a clue what it  
3 is you're talking about. So we would appreciate  
4 clarification.

5 While we see that, you know, all kinds of  
6 wonderful things are going to be done to avoid impacts  
7 to marine mammals, we're not seeing how actual impacts  
8 intended, unintended or otherwise, are going to be  
9 tracked, and what's going to be done to avoid future  
10 impacts once it's demonstrated that impacts are, in  
11 fact, happening.

12 It's unclear to me, the maps that we're seeing  
13 show range 237, but it also shows other ranges,  
14 including one in the Selkirk Mountains. So we would  
15 like to know what exactly are you planning in the  
16 Selkirk Mountains, what are you doing there now and  
17 what's changed?

18 The EIS admits, and it was admitted just now, that  
19 there will in fact be impacts to ESA listed species.  
20 While there may not be serious impacts, there's a  
21 reason why they're ESA listed, and we ain't happy. No,  
22 we don't want impacts to EAS listed species.

23 Oh boy, I got three more. Somebody here today  
24 contacted the Makah Tribe. We were told that the  
25 tribes were consulted. They were rather floored. They

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1 had not heard anything.

2 I think consultation needs to be a little more  
3 vigorous. While you say you're abiding by all the  
4 federal regulations, you're also asking for waivers.  
5 That's not appropriate, you're either abiding by them  
6 or you're not. Don't ask for waivers and then tell us  
7 how you're abiding by them.

8 MR. MICHAELSON: Thank you. Mr. Erickson.

9 MR. ERICKSON: Steve Erickson, also speaking  
10 for Whidbey Environmental Action Network.

11 First, I would point out that the web site where  
12 the documents were to be available basically have been  
13 dysfunctional, and the actual availability of the EIS,  
14 DEIS, has been less than half of the allotted public  
15 comment period.

16 Now, one purpose of NEPA, a primary purpose, is  
17 informed decision making, and that includes allowing  
18 the public the opportunity to also comment and review  
19 the documents. Having the documents available for such  
20 a relatively short time for proposal of this scope does  
21 not really -- is not really consistent with that  
22 purpose. The comment period really needs to be  
23 extended, at least for the amount that was lost when  
24 the documents were not available.

25 Second, regarding -- I just want to touch on our

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1 concerns regarding the training in Eastern Washington,  
2 and the expansion, or the intensification of the  
3 activities, I'll say.

4 Our particular concern regarding Selkirk Mountains  
5 is that is the area with the last remaining occurrence  
6 of the lower 48 states of Mountain Caribou, federally  
7 listed an endangered species, and one of the rarest  
8 mammals in North America. Currently there's no  
9 critical habitat designated for Mountain Caribou,  
10 although there is a lawsuit in progress that ultimately  
11 is going to end up with designation critical habitat.  
12 Now, when I inquired about this to one of the  
13 representatives of the Navy here tonight, I was told  
14 that a critical habitat is designated, the Navy would  
15 simply ask for an exemption from the Endangered Species  
16 Act from that critical habitat.

17 I point out that the area we're talking about here  
18 is probably relatively small in the overall scheme of  
19 the area that the Navy is currently using for  
20 training. And even without critical habitat being  
21 endangered for that rare mammal, you should avoid that  
22 area, or raise your elevation, or you should certainly  
23 be analyzing the impacts.

24 And this EIS, although most of the attention here  
25 tonight is rightly focused on the marine impacts and

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1 the marine zones off the coast of Washington that that  
2 area is also included. And there's really no analysis  
3 in there at all of those areas. I mean there's just  
4 some kind of boilerplate language. And that is  
5 deficient in terms of what the purpose of performing an  
6 environmental analysis is.

7 At that I'm going to leave it.

8 MR. MICHAELSON: Thank you. Next speaker is  
9 Netsah Zylinsky.

10 MS. ZYLINSKY: I'm actually here tonight to  
11 kind of represent the voice of the mammals and the  
12 birds and the fish that can't speak, so it's my vote  
13 and their vote that we go for the No Action  
14 alternative, which means maintaining the existing  
15 training levels. Obviously, they can't speak, and I do  
16 need to speak in their behalf.

17 Also, I'm very concerned about the depleted  
18 uranium mutations that sink to our sea floor. I want  
19 it to be noted that uranium, whether depleted or not  
20 depleted, has a half life of 250 thousand years. We  
21 all know that. And we know that they will sit on the  
22 ocean floor for that long. And what effect that has on  
23 the environment we don't really know. None of us are  
24 going to live that long. How many generations will  
25 that affect?

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1           The other thing I would like to mention is that  
2 basically we just really want to know if the  
3 oversight -- if the committee that's going to watch  
4 over this is actually a part of your -- your reporting,  
5 your fish and wildlife meeting, are they actually going  
6 to be with you side-by-side observing this, or are you  
7 just reporting to them on the observations and the  
8 scientific data that you're collecting? So that's a  
9 question I have as well.

10           Thank you.

11           MR. MICHAELSON: Thank you. Lorraine Bayes.

12           MS. BAYES: Good evening. Thank you, and  
13 thank you to everyone here who care about the earth.

14           I just want to play this drum as a reminder of  
15 your own heart beating, and that the decisions that are  
16 being made are really for the next seven generations  
17 for us to remember, you know, the Earth Mother and all  
18 her relations. And to that deep, deep heart wisdom  
19 that we know in our bodies and we know in our spirits,  
20 that we need to take care of our earth, and we need to  
21 take care of the animals, and we need to care for the  
22 next seven generations of people and care for all the  
23 children and the generations yet to come.

24           This is a deeply spiritual decision that we're  
25 making, and I would like to be a voice for that. And

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1           just to share a song.

2           I hear the voice of my grandmother calling me.

3           I hear the voice of my grandfather call.

4           They say "Wake up, wake up people, wake up, wake  
5 up, listen listen, listen listen."

6           They say "Stand in your power, people, stand in  
7 your power, listen listen."

8           They say "Teach and share wisdom, elder, teach and  
9 share wisdom, listen listen, listen listen."

10           May the rivers all run wild. May the mountains go  
11 unspoiled. May the air be clean. May the trees

12 grow tall. May there be love for every mother and  
13 child. May there be love for every woman and man.

14           May there be love for every being in the wild.

15           Listen listen, listen listen, listen listen."

16           MR. MICHAELSON: Thank you. Let me read

17 ahead several more names. Linda Morris will be  
18 followed by Paul Gillon, Gaylynn Beighton, John Hurd  
19 and Kimmer Morris.

20           Linda Morris, please.

21           MS. MORRIS: Hello, I'm Linda Morris. Thank  
22 you for welcoming public comments.

23           And I wish that I had the confidence that the Navy  
24 will really, really truly take what it said in these  
25 public comments, and take them under advisement, and

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1 that it might change the plan. So that is my hope.  
2 I have a few comments and a couple of questions.  
3 The EIS says that the Navy is planning to phase out  
4 depleted uranium. And I would like more information on  
5 that, when, a specific date.

6 The problem is that we don't know how much is  
7 currently being used, and we don't know -- so part of  
8 trying to assess the damage to marine life is that we  
9 don't know how much is currently being used, we don't  
10 have good research, long-term research, and we  
11 don't know what the effect of other heavy metals like  
12 tungsten will have long term on marine life.

13 Commander Miller, you talked about environmental  
14 stewardship. It's a good word. But I believe that  
15 this phrase is in direct conflict with the use of  
16 sonar, Du, tungsten and other heavy metals.

17 I've done a lot of research, particularly on Du,  
18 but also on sonar, and we don't know their long-term  
19 effect on marine mammals and on the human race. And I  
20 think that we're playing a very dangerous game. So I'm  
21 not convinced that there will not be significant harm  
22 done by the use of these materials and sonar.

23 I asked a question several years ago, a couple of  
24 years ago, and the Navy had an open house over on the  
25 peninsula, and several of us from here went to that

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1 open house.

2 And I asked a question of one of the men, of the  
3 Navy men who was showing what they were planning to do,  
4 and I had said to him "How much is enough? When will  
5 it be enough?" And I asked the same question of  
6 another gentleman here tonight.

7 Every time the Navy comes to the public they ask  
8 for more land, more training opportunities. All of  
9 this has an impact and an increasing impact on our --  
10 the health of our oceans and our beaches.

11 And so I ask how much will be enough? And will  
12 the Navy come asking for more and more and more in the  
13 future? And what will be left of healthy beaches and  
14 oceans for our children and our children's children?

15 I would like to, in conclusion, make a plea for  
16 citizen oversight of what goes on in this area that is  
17 being talked about tonight. It's a huge area,  
18 including a marine sanctuary. Which to me the word  
19 "sanctuary" means a place of safety, someplace where  
20 you can go and feel that you will not be disturbed. So  
21 that the Navy's activities in this marine sanctuary is  
22 in direct contrast to what I consider to be the meaning  
23 of the word "sanctuary."

24 But back to the citizen involvement, I would  
25 really believe that you would have a lot less

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1 antagonism by the population around the Pacific  
2 Northwest if the citizens felt like they would have had  
3 a voice in the oversight of what goes on.

4 Right now we feel that -- at least I do, and I  
5 know lots of people feel like we don't have the  
6 information. The wool is being pulled over our eyes,  
7 and we don't have a lot of confidence in what's going  
8 on. Thank you.

9 MR. MICHAELSON: Thank you. Paul Gillon.

10 MR. GILLON: Did you say Paul Gillon?

11 MR. MICHAELSON: I did.

12 MR. GILLON: I'll try to make my comments  
13 very brief.

14 But it isn't always the case that the bad guys sit  
15 on one side of the table and the good guys sit on the  
16 other side. We're all in this together.

17 And I can understand the need for training and  
18 being prepared, but I think that we're missing the boat  
19 in some of our developments. And the sonar buoy at one  
20 time was a passive system. And then they added  
21 explosives to it. It's kind of like driving a carpet  
22 tack with a sledge hammer.

23 I think that we really need to put an emphasis on  
24 seeing if we can get back to the passive system with  
25 the sonar buoy. I can understand the concern over the

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1 Chinese diesel boats, but if we can get back to a  
2 passive system we can -- we're better off, because once  
3 you light up these high powered systems on submarines  
4 and frigates you also alert the enemy that you're  
5 there. And the same thing in setting off the  
6 explosives.

7 And most of the diesel boats have to transit with  
8 diesel, not with electric power, so their signature  
9 should be more pronounced when they're under diesel  
10 power than electric power. And that really should be  
11 taken into consideration.

12 We had an incident in the '60s where the KGB  
13 seized a Russian nuclear diesel -- not nuclear, a  
14 Russian diesel submarine that had atomic missiles  
15 onboard, and they accidentally blew themselves up. If  
16 we had had a good acoustic system we could have  
17 probably picked them up when they were 200 miles off  
18 Honolulu.

19 So I'm just saying that I really feel that we all  
20 need to take a look at passive, because it creates less  
21 damage to animals, and it may be more -- if we could  
22 hear the enemy coming and get on top of him without  
23 telling him we're there then we'd be better off.

24 That's what I have to say. Thank you.

25 MR. MICHAELSON: Thank you. Gaylynn

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1 Beighton, please.

2 MS. BEIGHTON: Commander, thank you for  
3 holding this hearing. I know these are really tough  
4 evenings sometimes for you on the other side of the  
5 desk, and I just appreciate so much the Navy having us  
6 here and listening to us.

7 And I would just like to compliment you. I think  
8 you try very hard to be good neighbors. And those in  
9 the community who are with the Navy who I have met are  
10 just the highest caliber people, and so I thank you,  
11 you are an important part of our community.

12 MR. MICHAELSON: Could you state your name,  
13 please?

14 MS. BEIGHTON: My name is Gaylynn Beighton,  
15 and my address is 2507 West Beach Road, Oak Harbor.  
16 And I'm sorry I didn't speak my name first.

17 My vote would be for a No Action alternative. And  
18 that is because I have concerns about the reference in  
19 the federal notice register to the incidental take of  
20 endangered species. My fear relates, among other  
21 animals, to the south resident orca. There are less  
22 than 100 of these animals left in the world. We have  
23 names for all of them here. We are -- we love our  
24 orcas. We have an organization called the Orca  
25 Network, and they have a map and they tell us every

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1 time they see one of these orcas, whether they're in  
2 Puget Sound or whether they're down in San Francisco  
3 and off the coast of California.

4 They are really on a slippery slope. They're  
5 facing challenges on many issues with regards to lack  
6 of food, pollution in the water. And they're just a  
7 very, very grand animal, that if there's any way that  
8 we can save them from extinction we want to do that.

9 So I'm very concerned about the reference to  
10 incidental take, because in my mind losing one of those  
11 animals is too many.

12 And then my second concern is the reference that I  
13 read of materials that would be left in the environment  
14 and not retrieved afterwards. And my thought on that  
15 is, you know, the potential for large marine mammals to  
16 get caught up in ropes, or you know, strangled to death  
17 and that sort of thing.

18 And maybe that isn't even a concern, but that was  
19 what came to my mind, was the potential for the marine  
20 mammals to get caught up in anything that's left over  
21 after the training exercises.

22 I think that's it. I just hope -- I hope we can  
23 come to something that's the best for the most people.  
24 Thank you for listening.

25 MR. MICHAELSON: Thank you. John Hurd.

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1 MR. HURD: My name is John Hurd, and I live  
2 in Clinton.

3 And first I want to thank you for your service to  
4 our country. And I want to thank you for the  
5 opportunity to address the issues about the EIS, and  
6 for making the documentation available.

7 The 1,068 page EIS was made available at the  
8 library in this town. I live 45 minutes south of  
9 here. When the web site was down for the days that it  
10 was down I was advised "Well, you can drive up to Oak  
11 Harbor." And I asked myself, well, if I look at the  
12 map -- finally somebody sent me a copy of the map --  
13 I'm thinking well, wait, Freeland is really close to  
14 the part of the area that's involved. Why isn't there  
15 an EIS at the Freeland library?

16 This is a print of the page "Cannot be displayed"  
17 with my computer clock and date superimposed on the  
18 21st of January at 9:37 a.m., web site still down. It  
19 was down for 15 percent of the 38-day comment period.

20 And we're assuming that because there was an abort  
21 issue and people making comments right up to that  
22 period when it went down and then finally got put back  
23 up and they figured out how to fix it, that that abort  
24 issue existed from the get-go. And so what this  
25 constitutes is 51 percent of the public comment period,

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1 no comment was available or possible to be done.

2 Consequently, I think it's appropriate that there  
3 be an extension of 51 percent at least of that 38 day  
4 period. So I would like to respectfully request that.

5 And the -- while recognizing the need for  
6 readiness through training, the No Action alternative  
7 is all that we can support due to the lack of  
8 information available to assess the impact on numerous  
9 endangered and declining marine species, especially  
10 proposed with new proposed testings of new systems.

11 The Navy is so big that before any expansion of  
12 programs could be considered the community would expect  
13 from its large neighbor, the Navy, a comprehensive,  
14 holistic, probematic (ph. Sp.) impact statement of  
15 where we stand at the present time.

16 We have no information about the existing  
17 conditions before we can consider expanding  
18 conditions. So prior to supporting proposed changes,  
19 the Navy needs to fund independent research on seasonal  
20 presence of marine animals, fish, birds found in  
21 training ranges, rather than rely upon outdated  
22 surveys.

23 The Navy needs to supply public access to  
24 non-classified, ambient, acoustic information in their  
25 training ranges, to confirm compliance with operations,

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1 and to demonstrate the means to respond to maritime  
2 incidents in all areas, including interactions between  
3 ships and commercial vessels. We would rather not have  
4 oil spills in a sanctuary.

5 And I would like to be told how much depleted  
6 uranium exists on the ocean floor, and how much the  
7 Navy intends to dump there, as they quote, phase out  
8 the use of that material. And I would like to see a  
9 scientific study on the impact of that material long  
10 term on all marine species.

11 MR. MICHAELSON: Thank you, Mr. Hurd.

12 MR. HURD: Thank you.

13 MR. MICHAELSON: The next speakers in order  
14 will be Kimmer Morris, Sarah Schmidt, I think this is  
15 Al Williams, P.O. Box 863, Wendy Campbell DeWinter and  
16 Howard Garrett. Kimmer Morris.

17 MS. MORRIS: Hello, I'm Kimmer Morris. Thank  
18 you for having this hearing.

19 I'm a school teacher in Langley, and we just  
20 created -- adopted a new mascot, which is the orca. I  
21 am here for all marine species, to speak for them, and  
22 I echo everything that has been brought up before.

23 But I'm kind of wondering how many of you have --  
24 or how many of you have ever been snorkeling or scuba  
25 diving? I'm assuming some of you have. Okay. So you

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1 know when you're looking out above the water, you don't  
2 see very much sea life, but then when you're in the  
3 water it is alive, right? You've seen that?

4 So I have the concern that if you're just looking  
5 like this to see what's out there, how are you looking  
6 underneath? Maybe that's in the EIS, maybe it's not.  
7 I would like it to be.

8 And my next concern has to do with the depleted  
9 uranium and tungsten and the research or what ways are  
10 being planned to protect the levels, the cumulative  
11 levels of that, both presently and in the long term.

12 And along those lines, I would like to pose a  
13 question. How much depleted uranium do you want to eat  
14 in your fish and in your children's fish and your  
15 grandchildren's fish? How much? Do you have an amount  
16 that is acceptable to you?

17 MR. MICHAELSON: Sarah Schmidt.

18 MS. SCHMIDT: Thank you. I'm Sarah Schmidt  
19 from Coupeville, and I'm speaking as the president of  
20 Whidbey Audobon Society.

21 And I recognize that I'm here and we operate on  
22 behalf of protecting wildlife and wildlife habitat, and  
23 you're here and you operate on behalf of the conviction  
24 currently that we need military to defend our country.  
25 So we're here looking at different priorities.

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1 We would vote for the No Action alternative. And  
2 I want to recognize that, and applaude the Navy's  
3 progress as an environmental steward, which I have  
4 certainly seen over the course of my lifetime. But I  
5 would pause that it's partly a response to pressure  
6 from people like us that keep pushing to make -- try  
7 and make our leaders increasingly aware of protecting  
8 the environment.

9 We have concerns about some other things that have  
10 been said tonight about chemicals that will be released  
11 into the water and materials left in the environment,  
12 the depleted uranium, heavy metals.

13 And another concern, as far as the protecting the  
14 marine mammals, is that it's difficult to believe that  
15 24-hour lookouts could reliably detect and protect ESA  
16 listed species in the real life conditions at sea and  
17 visibility.

18 I have some concerns that this EIS was developed  
19 in consultation and review with National Marine  
20 Fisheries Service at a time under administration in  
21 Washington for the last eight years that has been no  
22 friend to the environment or to sound science, and has  
23 put a lot of pressure on agencies to back off from  
24 their quality of work in that regard.

25 And we've just elected a new administration in

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1 Washington that we hope will provide that missing  
2 leadership and work towards moving us towards being  
3 better environmental stewards and also protecting our  
4 crew with more diplomacy so that you won't have as much  
5 work to do.

6 The EIS acknowledges that the proposed intensified  
7 activities that were modeled may affect ESA listed  
8 fish, turtles, birds and marine mammals, and that the  
9 Navy would attempt to minimize those effects at a time  
10 when the populations of marine mammals, seabirds and  
11 ESA listed salmon are dwindling, and there are harbor  
12 increased toxins.

13 We've got the Puget Sound Partnership trying to  
14 help reverse the situation and bring Puget Sound back  
15 to help.

16 There's no place for experimentation or continued  
17 harm. And the best way to minimize harm is to omit the  
18 actions altogether. Thank you.

19 MR. MICHAELSON: Al Williams.

20 MR. WILLIAMS: Thank you. I'm Al Williams.  
21 I live in Oak Harbor.

22 And we've had a lot of really good comments  
23 tonight from -- heartfelt comments from people, and we  
24 hope that you really take some serious note of them.

25 One of the best ones was from you, Commander

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1 Miller, when you said you intend to be here for good.  
2 I would also like to notice that you talked about  
3 having a lot of studies using the best science. And I  
4 would like to question that, because I've noticed that  
5 all of the displays here and all of the comments and  
6 stuff have been studies by the Navy. Have you also  
7 considered the input from University of Washington  
8 Beachwatchers, other sources from the educational  
9 community, and things of that nature, which I think  
10 deserve to be given some high -- high credit in all of  
11 this, as are the comments from so many people here?  
12 I would like to mention about the severity of the  
13 situation of our ecology. And I've talked to some of  
14 you people tonight about this. And that is exemplified  
15 by the situation with our salmon right now. We've  
16 talked about the Orcas, we've talked about other  
17 things, and I can't sing as well as you do, but I would  
18 like to say that the salmon are just about gone.  
19 They're so bad that our federal government now is  
20 compensating the Indians for our lack of salmon.  
21 California and Oregon this last year completely  
22 banned -- according to the newspaper articles I've  
23 read, completely banned salmon fishing this year  
24 because there's so few.  
25 We have some real concerns about our environment

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1 and where it's going. I'm 72 years old now, but that's  
2 a short time in the course of history. But I can tell  
3 you that when I was a kid we didn't even think that  
4 these concerns were important. We thought that the  
5 world was just forever. But it's not, and we're  
6 finding that out rather quickly.  
7 Another question is about some credibility. This  
8 has been a little bit mentioned. I'm not going to  
9 question the credibility of the people here before us,  
10 the people who have done these studies, and the  
11 sincerity and the intention and the integrity of you  
12 people.  
13 But I have some real concerns, and I think a lot  
14 of us do, about the credibility of the people who make  
15 many of the decisions farther up, and particularly in  
16 the last eight years.  
17 And if I may give an example of why I think that  
18 this credibility issue is of concern; many of us feel  
19 that we have been fibbed to, that we have been  
20 deceived.  
21 Now, my wife and I are truckers. We just recently  
22 retired, but we did a lot of military work, and I was  
23 proud to do it. I've hauled for Whidbey here, I've  
24 hauled out of Keystone or Keyport, and I've been over  
25 at Bangor, I've been all over the country and whatever,

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1 and I'm proud of that.

2 We have a question about how much military we  
3 need. The question is is there ever enough to be  
4 completely safe? And I think the answer is no. Okay.

5 I think we need to also look at alternatives.  
6 Now, this is not your purvue, but I think some very  
7 important purvues are negotiation and a five letter  
8 word, "Peace."

9 MR. MICHAELSON: Wendy Campbell DeWinter,  
10 please.

11 MS. DEWINTER: My name is Wendy Campbell  
12 DeWinter, and I reside on Whidbey island.

13 And I would like to thank all of you for being  
14 here, and all of the support staff for doing what  
15 you've done this evening and making this a really  
16 comprehensive and quite visual presentation. We really  
17 appreciate it.

18 I'm here as a voice for my friend, Ben White. Ben  
19 White is a -- Ben White, a political -- professional  
20 political -- I mean excuse me, a professional wildlife  
21 environmental activist, spent a significant amount of  
22 time over a very short period of time in the waters off  
23 of Hawaii when the Navy was testing the sonar. Ben  
24 died three years ago from stomach cancer. And I have a  
25 profound feeling that his time that he spent in the

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1 waters with the sonar had an effect and contributed to  
2 his death.

3 When I lived on San Juan Island the orcas were in  
4 my front yard. Prior to that particular property, I  
5 had had deer and rabbits and other wildlife in my front  
6 yard. It was not until I had the orcas in my front  
7 yard that I realized the incredible connection that the  
8 orcas have with the humans. Having -- and I've never  
9 gotten to swim with the dolphins yet.

10 But having the orcas as part of my daily  
11 activities was one of the most profound experiences  
12 I've ever had. And I had no idea prior to being able  
13 to be that close to them how sensitive they are, and  
14 how much they really care and consider us human beings.

15 And on religious and spiritual grounds I request  
16 that no action, no further extension of testing. I  
17 live on the beach on Whidbey Island, and I have the P-8  
18 and the fighter jets flying overhead. They're supposed  
19 to be flying over the water. They do that sometimes,  
20 and sometimes they're over my house, which is not too  
21 many feet, off course, but it's off course enough that  
22 they have no business flying over my house.

23 And what my vet and I can tell you about the  
24 impact on the health and the dying and the death of my  
25 domestic animals is significant.

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1 I just wonder when the Navy is going to start  
2 considering the effect that it has, and some of the  
3 other things that they do in our sanctuary have on both  
4 the wildlife and us human beings.

5 I request that the the media notify us in advance,  
6 much further in advance than they have, and that we  
7 have access to the EISs. And if there's going to be  
8 the Internet down in the future they need to  
9 automatically do an extension. And I request an  
10 extension of this EIS review since the media and the  
11 Internet did not function properly. Thank you.

12 MR. MICHAELSON: Have anymore cards been  
13 turned in? I'm down to my last one. Thank you.

14 The last speaker I have listed here is Howard  
15 Garrett.

16 MR. GARRETT: Thank you. My name is Howard  
17 Garrett, I live in Greenbank.

18 And I'm president of Orca Network, with about  
19 4,500 subscribers to our list. And -- well, first, I  
20 do want to say I appreciate your service. And I have  
21 high regard for the Navy personnel. I've cooperated  
22 with them, they've been very helpful with a lot of our  
23 activities. And I want to basically read my comments,  
24 but I want to give a few ad libs first.

25 And one is the statement that no mortalities to

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1 marine mammals is anticipated I find to not be  
2 credible. Given the enormity of these exercises, the  
3 number of vessels, the munitions used, the sonars, the  
4 explosives, I can imagine the difficulty in detecting  
5 marine mammals in the water. I can't imagine that  
6 there won't be mortalities as there have been on many,  
7 many instances around the world.

8 So I'll just read what I have. "An extension of  
9 the comment period is needed on grounds that the web  
10 site to submit comments was non-functional during more  
11 than half the comment period."

12 As has been mentioned that the principal mechanism  
13 for input was down for more than half of the period, so  
14 it should be extended, we believe.

15 And due to the decline of numerous marine species  
16 and the lack of information available to assess the  
17 impact of the Navy's proposed expansion on these  
18 species, especially with proposed testing of new  
19 systems and inadequate marine mammal monitoring, a No  
20 ction alternative is the preferred option.

21 Prior to supporting any expansion of training  
22 activities the Navy needs to fund independent research  
23 on the seasonal presence of marine birds, fish and  
24 mammals within the training areas, rather than rely on  
25 outdated surveys. And I want to underline what's been

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1 mentioned, that the southern resident orca population  
2 is very fragile and tenuous, has been in decline in  
3 recent years, listed as endangered since 2005, and  
4 passes through that area all year long.

5 The Navy needs to provide public access to  
6 non-classified ambient acoustic information in their  
7 training ranges to confirm compliance with their  
8 operations. We need to know what's going on  
9 scientifically.

10 And the Navy needs to demonstrate a means to  
11 respond to environmental consequences like oil spills  
12 of a maritime incident in their operating areas.

13 We've been involved in observing and researching  
14 many species of cetaceans since 1981. We are well  
15 acquainted with the difficulty of recognizing brief  
16 sightings or faint acoustic signals. In our judgment,  
17 given the enormity and the complexity of the number of  
18 ships, the basic situation of training exercises, we  
19 find the mitigation measures in this EIS are not  
20 sufficient to reliably detect the presence of cetaceans  
21 in most instances.

22 The recognition is highly problematic, even for  
23 experienced personnel. So the Navy should improve the  
24 mitigation measures to include training of monitoring  
25 personnel by experienced whale biologists to improve

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1 recognition.

2 And finally, on the threat issue that is the basic  
3 justification and the mission to deter threats, the  
4 long-term challenge is to dial down the need for these  
5 training exercises altogether, which is a problem of  
6 international relations and diplomacy.

7 Thank you so much.

8 MR. MICHAELSON: We do have some time left,  
9 so I'm going to invite people up for a second.

10 But I just want to double check, is there anyone  
11 yet who has not spoken who wanted to tonight before I  
12 do that?

13 Yes, sir. I'll just have you fill out a card  
14 afterwards. Give us your name. And you've got four  
15 minutes. Thanks.

16 MR. WOLD: My name is Bob Wold, and I was  
17 actually here before the Navy, or close to it.

18 And I've been around all of your areas that you're  
19 proposing to effect, and I'm not too sure, what type of  
20 uranium are you proposing to waste out there or dump  
21 out there at this training system?

22 MR. MICHAELSON: We're not answering  
23 questions at this point.

24 MR. WOLD: The problem that I see out here is  
25 we're talking about the food chain. They like to talk

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1 about the whales. And they are beautiful, and I've  
2 seen them all my life. But the whales are declining  
3 because the food supply is declining. And you have  
4 sharks and other animals that are sensitive to noise,  
5 and our props take a toll on them, so do our sonars  
6 that we use on our power boats.

7 And what I do is deliver boats up and down the  
8 coast. And it's been a real effect. And I can't see  
9 this endangered sound being affected anymore. And I  
10 can't see the other areas being affected anymore.

11 What I would like to see is you go down and use  
12 some of the places that you've already pretty much  
13 destroyed with your weapons down in the south. I don't  
14 know why you can't go down to where you dropped off the  
15 last few bombs over there and use that area as a  
16 testing area, instead of coming up here and using the  
17 sound? I know it's a long distance to travel, but it  
18 will give you an area. We've got Hanford and a couple  
19 of other areas that we have designated as areas to  
20 dispose of things. We should use those areas, instead  
21 of trying to reinvent some new areas. We've got  
22 fertilizers and nitrates and things like this in our  
23 waters now that are causing a lot of problems, red  
24 tides and some other things. These areas are affecting  
25 us, and they're hitting the people like the plankton

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1 and the shark and the killer whales on a microscopic  
2 level. And now you're asking to put more stuff into  
3 it. I can't even flush my toilet out at sea. I have  
4 to go 200 miles offshore to do any disposal of any  
5 waste, and you're asking to come inshore and do some  
6 more damage that you won't let the American public do.

7 The people -- and we just went through a banking  
8 problem, a Wall Street problem, because our government  
9 allowed these people to go ahead with stuff. And now  
10 you're asking to go ahead with the Navy proposal to  
11 expand its weapons testing in our waters. We have the  
12 spot off West Beach. It's never been the same since I  
13 was a kid. I don't fish around here anymore because  
14 there's very few fish. I don't even own a fishing pole  
15 up here anymore. Thanks.

16 MR. MICHAELSON: If one of the staff -- thank  
17 you -- could get to him to fill out a card? Yes, have  
18 you spoken?

19 MS. PIAZZON: My name is Toni Piazzon, 1031  
20 Northeast Summit Loop in Coupeville.

21 I have done some fish seining for NOAH and the  
22 Beachwatchers. That's my primary concern, is the  
23 species that we're losing, such as the salmon, is the  
24 critical thing here, and the orcas that depend on the  
25 salmon.

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1           And so I don't see how we can even consider doing  
2 more damage when the rest of the country is fighting to  
3 do all the salmon recovery and gain back what we've  
4 already messed up. So do more -- do no more harm.

5           I think as other people have said, extending the  
6 comment period, dysfunctional web site, I'm sure a lot  
7 of people just got frustrated and didn't bother. So  
8 that should be extended. And support for No Action  
9 alternative, just like I was saying, let's not do  
10 anymore harm.

11          My concern with the pollution in the food chain  
12 from the microscopic to the end user, the whales and  
13 us, to be putting more metals -- we've had an ocean  
14 pollution problem for a long time. And I think this  
15 whole proposal is going against what we finally are  
16 starting to come to grips with is how much we're  
17 polluting our planet and changing the climate. And  
18 we've got to think of different ways of doing things.

19          I mean I want to protect -- I respect all military  
20 and thank them very much for what they do, but we have  
21 to weigh that with -- you know, we can't mess up our  
22 environment or we're all going to suffer.

23          And the other thing was I've been out to boats and  
24 sea sailing, stuff like that, and it's very hard to be  
25 a lookout, and really you can hardly see things, even

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1           like turtles. I've snorkels and done stuff like that,  
2 and you know, you can't see those little noses coming  
3 up. I mean is it breaking water or what? And the  
4 amount of sea life is there, it's just too critical.

5           So like Howard was saying, we need expert marine  
6 biologists that specialize in identifying the sound for  
7 whales and other marine mammals.

8           And I have concerns of the thousand meters, that I  
9 don't know if that's really a large enough zone to stay  
10 out of when it comes to the sonar and the explosives  
11 because of how much sound carries through water. And  
12 my concern also is in the behavior, of how much we're  
13 affecting their behavior, would it be to strandings or  
14 altering their habitats, feeding habitats, migration  
15 habitats, things like that. So thank you very much.

16           MS. MICHAELSON: Thank you.

17          I had another card turned in, Louise Mueller  
18 Wright.

19           MS. WRIGHT: I don't need to come up there.

20           MR. MICHAELSON: Actually, you do need to,  
21 just to make sure we get it on the record. I know  
22 public speaking is a scary thing, so sorry to make you  
23 come up here. I need to make sure I get a record of  
24 it. State your name, please.

25           MS. WRIGHT: Louise Mueller Wright.

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1 MR. MICHAELSON: Get a little closer to the  
2 mic, please.

3 MS. WRIGHT: Louise Mueller Wright. And I  
4 live on Madrona Way.

5 And I look right out my window at Penco Park, so  
6 I'm very connected with the water. But no one has  
7 mentioned -- no one has mentioned about all the little  
8 creatures that live on the sea floor and what happens  
9 when all the garbage is dumped on top of them and they  
10 are squished never to live again, happily again on the  
11 bottom of the sea. And they are very important to the  
12 ecological balance of the ocean. Thank you.

13 MR. MICHAELSON: Thank you. Che Gilliland.

14 MS. GILLILAND: I'm Che Gilliland. I'm also  
15 a teacher, and I've been interested in marine biology  
16 and marine science for so long. And I went online to  
17 start looking at the EIS online and didn't get a lot  
18 done.

19 But I found a few things, and my main concern is  
20 over the marine life, but also the impacts chemistry  
21 wise interactions with the actual ocean with the things  
22 that are being put in it. And I talked to one  
23 gentleman who said there was no depleted uranium, that  
24 it was sea floor that was the explosives, but I still  
25 think there's something, it doesn't just dissipate. So

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1 enough about that.

2 And anyhow, when I was on the computer I found a  
3 couple of things, and there were just pages and pages  
4 of information, but I was really interested in the  
5 sonar. And the first thing is on a couple of the pages  
6 they went through all the different marine life all the  
7 way from the southernmost area all the way up to here,  
8 and so some of the things that we have here in Puget  
9 Sound in this area are obviously orcas, and it goes  
10 through and kind of lists on three pages what animals  
11 are rare in that area, blue whales, all the way up to  
12 Steller sea lions, different animals that are found  
13 here, but it didn't get into the very tiny ones on  
14 this. But I agree with you on that.

15 But on your plans for No Action, which is what I'm  
16 advocating for, Alternative 1 and Alternative 2, with  
17 the sonar it went through some incidents that had  
18 happened. And granted, there's only four or five  
19 listed on here, but with whale strandings. And with  
20 the sonar, and I'm not sure about the kilohertz,  
21 there's different amounts and decibels. The timing and  
22 location of the testing encompass the time and location  
23 of whale strandings in Greece, and this is with a NATO  
24 research vessel. In March 2000 in the Bahamas 17  
25 marine mammals, Coutier (ph. sp.) beached whales and

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1 some other whales with the Department of Navy, I'm  
2 guessing, use of mid-frequency activities, sonar Navy  
3 ships were involved in tactical sonar exercises for  
4 approximately 16 hours on March 15th while emitting  
5 sonar pings approximately every 24 seconds. And so  
6 there's -- and it goes on to different things.

7 Mid-frequency acts of sonar and strandings began  
8 within hours of the onset of use of mid-frequency  
9 sonar.

10 In Spain, in 2006, active sonar training against  
11 the Spanish submarine, according to a pathologist, the  
12 likely cause of this type of beach whale stranding  
13 event may have been anthropogenic acoustic activities.

14 And so when I was going through, I noticed it says  
15 number of passive and active sonar efforts in the  
16 northwest training area, and under No Action for  
17 anti-submarine warfare, tracking exercise portable  
18 undersea tracking range, and it says the pinger MK-84  
19 range pingers, sonar uplink, transmission NFA and HFA  
20 sonar, right now there's zero hours of this, but under  
21 Alternative 2, which is what you would like to have, it  
22 goes up to 180 hours, 150 hours, and then 42 hours for  
23 mine countermeasure exercises.

24 And so I'm just really concerned about the sonar,  
25 and if there's these mass strandings that I don't know

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1 how -- how that can be prevented. So again, I'm just  
2 here to advocate for No Action. Thank you.

3 MR. MICHAELSON: Thank you. Anyone else who  
4 hasn't had a chance yet who would like to?

5 Well, I said about seven speakers ago that we were  
6 going to have time for second helpings. And I already  
7 had somebody turn in a card for second helpings.

8 So Mr. Hurd, I think you get a chance for four  
9 more minutes. That may be about it.

10 MR. HURD: Thank you. I always like to go  
11 back for seconds at the potluck.

12 I'll try to be brief. I just want to underscore a  
13 couple of things I said, and mention a couple other  
14 things.

15 MR. MICHAELSON: I'm sorry, could you state  
16 your name?

17 MR. HURD: John Hurd.

18 I really want to say that in the process that's  
19 envisioned here, I think it's important that we don't  
20 shoot ourselves in the foot while we're attempting to  
21 defend, we shoot ourselves in the foot by destroying  
22 part of that which we're attempting to defend. You  
23 know, there are no orcas on the surface of the moon.

24 As somebody pointed out recently, the earth is a  
25 living organism, and it's possible to literally wipe

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1 out part of that life force and make it resemble the  
2 surface of the moon in trying to defend the life that's  
3 on this not moon-like surface.

4 Somebody just recently said something about orcas  
5 being caught up in the remnant of activity, and I  
6 instantly thought how about the remnant of radioactive  
7 isotopes in the food chain for a long time, ending up  
8 in what, humans, Eskimos, orcas. Radioactive isotopes  
9 are thalidamied forever. We're talking, like somebody  
10 else said, the seventh generation. So that's why it's  
11 so important. I thought it was so important to  
12 establish what the baseline of what the existing level  
13 of depeleted uranium on the ocean floor, how many tons  
14 or pounds have been lobbed out to date, what the  
15 research effects on the biological systems to date are  
16 in order to consider future an increased usage.

17 And I would like to point out that, since I'm the  
18 first of second helpings, it is unanimous in this body  
19 of citizenry, if I'm not mistaken from what I've heard,  
20 I've listened to every speaker tonight, the No Action  
21 alternative is what is being advocated for. I've heard  
22 no person stand up and say -- I've heard no person  
23 stand up and say, "You know, you guys are on the right  
24 track in what you want to do with your proposed level 1  
25 or 2, is a good idea."

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1 I wish I had my little graphic, it's a pen and you  
2 can pull out this Venetian blind, and it shows the  
3 level of expenditure for military on all the other  
4 nations of the planet. And they have bar graphs that  
5 are about this high, and you keep pulling the Venetian  
6 blind out further and further and further, and here is  
7 the U.S., and the U.S. is about this tall, and the rest  
8 of the world combined is about this tall. How much is  
9 enough?

10 And I think we've reached the point of diminished  
11 returns, or is not necessarily in the interest of our  
12 national defense, and not in the interest of that which  
13 we're attempting to defend. Thank you.

14 MR. MICHAELSON: Thanks. Is this a new  
15 speaker? Excuse me just a moment.

16 So I have two more cards. We'll take these  
17 as the last. We can run a little bit past 8:30 before  
18 they turn us out.

19 So second chance for Gaylynn Beighton and Wendy  
20 Campbell DeWinter. Gaylynn, please.

21 MS. BEIGHTON: Thank you so much. I am  
22 Gaylynn Beighton, Oak Harbor, Washington.

23 I was really befuddled and lost my train of  
24 thought last time. But I would just like to pose a  
25 question to all of us. All of us in this room, all of

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1 us together, we're all in this together. What's the  
2 point to have state of the art training and weaponry  
3 and have a depleted, polluted world left to protect? I  
4 think we need to think about this.

5 I do think tonight maybe the Navy has gotten a bad  
6 wrap. I think as people we also have contributed to  
7 pollution and depletion of our planet. And I'm going  
8 to propose that we come together as citizens of the  
9 world for harmony, wholeness, abundance, and joy.

10 Thank you.

11 MR. MICHAELSON: Thank you. Wendy Campbell  
12 DeWinter.

13 MS. DEWINTER: Well, evidently in life there  
14 are no mistakes. Excuse me, my name is Wendy Campbell  
15 DeWinter, and I reside on Whidbey Island.

16 As I left the podium I was handed a piece of paper  
17 with an e-mail on it, and it refers to the 1998 Navy  
18 action off of the big island of Hawaii when the LFAS,  
19 low frequency active sonar, was being tested in regards  
20 to the humpback whale sanctuary. And it refers to Ben  
21 White. And it says that "The LFAS is known to cause  
22 brain damage to humans and marine animals alike."

23 I've -- I've heard briefings on testing in regards  
24 to the whales. And to me the effects are stunning.

25 I would like to talk about the notification, which

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1 I mentioned in my last visit up here to the podium, and  
2 my request is that the Navy take out a display ad in  
3 the Marketplace newspaper from the south end of this  
4 island. The Marketplace goes to all the mail boxes on  
5 the entire island, with the exception of the businesses  
6 in town, unless those businesses are advertising in the  
7 Marketplace, which many of them do.

8 And for less than two 248 dollars you can get a  
9 decent sized quarter page ad. And by the way, my  
10 disclaimer is I do not work for the Marketplace, nor  
11 have I ever worked for the Marketplace. But having  
12 been an advertising person, oftentimes in the print  
13 media, I appreciate the impact that the Marketplace has  
14 had on our community as far as notifying us of events  
15 that are happening.

16 And I request that we be notified within a minimum  
17 of three weeks before any kind of meeting or  
18 presentation for which we would have some -- of which  
19 we would have some interest.

20 And thank you again for being here.

21 MR. MICHAELSON: Thank you very much for a  
22 lovely evening spent with all of you. We do appreciate  
23 you being here. We do appreciate you taking part in  
24 this process. This process doesn't work if you don't  
25 do that. And we would have been much the sorrier if

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1 you hadn't come.  
2 With that I would like to adjourn this meeting.  
3 And maybe we'll see you at some of the future ones.  
4 We've got four more meetings to go. Thank you.  
5 (Hearing adjourned at 8:35 p.m.)  
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3 STATE OF WASHINGTON )  
4 ) ss  
5 COUNTY OF SNOHOMISH )  
6 I, LESLIE ANDRES, Certified Shorthand Reporter and  
7 Notary Public duly and qualified in and for the State  
8 of Washington, do hereby certify that the  
9 aforementioned hearing was held before me at the time  
10 and place set forth.  
11 I further certify that the foregoing transcript is  
12 a true and correct transcript of my original  
13 stenographic notes.  
14 I further certify that I am neither attorney or  
15 counsel for, nor related to or employed by any of the  
16 parties to the action in which this deposition is  
17 taken; and furthermore, that I am not a relative or  
18 employee of any attorney or counsel employed by the  
19 parties hereto or financially interested in the action.  
20 IN WITNESS WHEREOF, I have hereunto set my hand  
21 and affixed my Notarial Seal this 26th day of  
22 January 2009.  
23  
24 LESLIE ANDRES  
25 NOTARY PUBLIC

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NAVY'S NORTHWEST TRAINING RANGE COMPLEX DRAFT EIS/OEIS

OPEN HOUSE and PUBLIC HEARING

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January 28, 2009  
5:00 p.m.

Pacific Beach Fire Hall  
4586 State Route 109  
Pacific Beach, Washington

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A P P E A R A N C E S

Moderator:

Lewis Michaelson

Executive Officer:

Commander Matthew Miller

Project Manager:

Mr. John Mosher

Reported by: Leslie A. Andres, CCR 2489

North Sound Reporting

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LIST OF SPEAKERS

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BE IT REMEMBERED that on the 28th day of  
January 2009, beginning at the hour of 5:00 p.m. of  
said day, at the Pacific Beach Fire Hall in the City of  
Pacific Beach, County of Grays Harbor, State of  
Washington, the proceedings were taken before Leslie  
Andres, a Notary Public in and for the State of  
Washington.

WHEREUPON, the following proceedings  
were had and testimony given, to wit:

\*\*\*

P R O C E E D I N G S

MR. MICHAELSON: Good evening, everyone.  
We're certainly glad to see you here tonight.

My name is Lewis Michaelson, and I will be the  
moderator for tonight's hearing on the Navy's Northwest  
Training Range Complex Draft Environmental Impact  
Statement, Overseas Environmental Impact Statement, or  
Draft EIS, as we will all refer to it as.

Here to receive your comments, if you care to make  
them, are Commander Miller, Executive Officer of Naval  
Air Station Whidbey Island, and Mr. John Mosher, the

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1 project manager for the Navy's Pacific Fleet,  
2 Mrs. Kimberly Kler, waving right there, is the project  
3 coordinator from Naval Facilities Engineering Command  
4 Northwest. She's also here and will be the primary  
5 point of contact for sharing any written comments that  
6 you want to make about this project.

7 Let's look at the agenda for tonight. Hopefully  
8 you all had the opportunity to talk to the many  
9 knowledgeable experts and program officials who were  
10 staffing the exhibits during the open house. That's  
11 why we waited until 7:30 to start this. We wanted to  
12 give you a chance to do that, and it looks like  
13 everyone got a chance to take advantage of that.

14 The primary purpose for this portion of the  
15 hearing is for the panel members here to listen to your  
16 comments firsthand. They will not be answering  
17 questions during this phase of the proceedings. Any  
18 comments and questions will be addressed in the Final  
19 EIS when it is issued.

20 So after I finish this introduction Commander  
21 Miller will give a brief overview of the Navy's  
22 activities in the Northwest Training Range Complex.  
23 Next Mr. John Mosher will brief you on the  
24 environmental impact analysis process, and summarize  
25 the results reported in the Draft EIS. Mr. Mosher is

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1 the EIS project manager for the U.S. Navy.

2 The last item on the agenda, however, is the most  
3 important. The public comment session is your  
4 opportunity to provide information and make statements  
5 for the record. Your input ensures that decision  
6 makers can benefit from your knowledge of the local  
7 area, and any environmental effects you think may  
8 result from the proposed action or its alternatives.  
9 Keep in mind that the EIS process is intended to ensure  
10 that decision makers will be fully informed about the  
11 potential environmental impacts associated with the  
12 various alternatives before they decide on a course of  
13 action.

14 Please also remember that comments on issues  
15 unrelated to the EIS are beyond the scope of this  
16 hearing.

17 To request an opportunity to make a verbal comment  
18 we ask you to please fill out a verbal comment card,  
19 such as Allison at the table there is holding up. If  
20 you fill that out and turn it in to her or any other  
21 staff person, we will call on people in the order in  
22 which they sign up. Every speaker, including public  
23 officials, organizations and individuals will have four  
24 minutes each to provide your comment.

25 If you don't feel comfortable standing up here

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1 tonight to make a statement you have until February 11,  
2 2009 to submit a written statement for consideration in  
3 the Final EIS, or after we finish this portion of it,  
4 if you want to you can make comments privately  
5 one-on-one with the court reporter.

6 Keep in mind that written comments are given the  
7 same consideration as verbal comments offered here  
8 tonight. So it is now my pleasure to introduce  
9 Commander Miller.

10 COMMANDER MILLER: Thank you, Lewis. Welcome  
11 to the public hearings for the Northwest Training Range  
12 Complex Draft Environmental Statement.

13 My name is Commander Matt Miller, and I'm the  
14 Executive Officer, Naval Air Station Whidbey Island.

15 I want to thank you on behalf of the United States  
16 Navy for attending this evening. This is one of five  
17 public hearings the Navy is holding in Washington,  
18 Oregon, Northern California, and for the Northwest  
19 Training Range Complex Draft EIS.

20 As Lewis mentioned, we hope you had the  
21 opportunity to visit the poster stations this evening  
22 and meet with the Navy project team members.

23 Some background, personal background about me,  
24 I've been an active duty commissioned officer for over  
25 21 years. I'm originally from Silver Spring, Maryland,

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1 outside of Washington D.C., graduated from the  
2 University of Maryland. My Navy career is I'm a  
3 carrier aviator, started out flying Intruders as a  
4 bombardier navigator, and subsequently trained in the  
5 Growler EA-6B as an electronics countermeasure officer,  
6 and I have a little over 2,000 hours flying tactical  
7 jets for the Navy.

8 Before this tour I've been the Executive Officer  
9 for a year at Whidbey Island, before that I was the  
10 operations officer, and before that I was stationed on  
11 the U.S.S. Abraham Lincoln out at Naval Station Everett  
12 for two years. And prior to that an instructor, as an  
13 electronic attack weapons school instructor. And I've  
14 been on the west coast for about ten years, and I don't  
15 plan on leaving. So I live in Anacortes, Washington,  
16 so I like it out here and I'm going to stay. So that's  
17 me.

18 As Lewis stated before, you will have the  
19 opportunity to make oral comments regarding the  
20 contents of the environmental analysis. Written  
21 comments will be accepted tonight and throughout the  
22 public comment period which closes on 11 February  
23 2009.

24 The Northwest Training Range Complex is a military  
25 training area that has been in use by the Navy since

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1 World War II. It is comprised of two primary  
2 components; the Offshore area and the Inshore area.

3 The mission of the Northwest Training Range  
4 Complex is to serve as the principal backyard training  
5 range for those units homeported in the Pacific  
6 Northwest area, including surface ship, submarine,  
7 aviation, and Explosive Ordnance Disposal units located  
8 at Naval Air Station Whidbey Island, Naval Station  
9 Everett, Puget Sound Naval Shipyard, Naval Base  
10 Kitsap-Bremerton, and Naval Base Kitsap-Bangor.

11 The Northwest Training Range Complex also supports  
12 military units from outside the range complex area,  
13 such as Naval Special Warfare units supporting their  
14 training requirements.

15 The Northwest Training Range Complex includes  
16 ranges, training areas and air space that extend west  
17 to 250 nautical miles beyond the coast of Washington,  
18 Oregon, Northern California, and extend east to the  
19 Washington/Idaho border.

20 The Offshore component of the Northwest Training  
21 Range Complex encompasses 122,400 square miles of air,  
22 surface, subsurface ocean training areas. The Inshore  
23 component includes about 875 acres of land on Whidbey  
24 Island and Indian Island, with more than 12,000 square  
25 nautical miles of Special Use Air space and

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1 subsurface -- surface and subsurface training areas  
2 within the Puget Sound.

3 Military activities currently conducted in the  
4 Northwest Range Training Complex can be divided into  
5 the primary mission areas listed here.

6 To accomplish its mission in the Pacific  
7 Northwest, it is critical for the Navy to maintain and  
8 operate the necessary facilities and to provide these  
9 critical training areas to U.S. Navy commands so that  
10 forces can train realistically.

11 Realistic training ensures the U.S. Navy personnel  
12 maintain the highest level of readiness and capability  
13 and is the single greatest asset the military has in  
14 preparing and protecting American service men and women  
15 to defend the nation. There's no such thing as  
16 "routine" training when it comes to practicing combat  
17 skills.

18 To ensure Navy forces are fully ready to provide  
19 the deployment -- fully ready prior to deployment  
20 requires specialized ranges where military personnel  
21 can learn, through practical hands-on experience, the  
22 technical skills necessary to effectively plan and  
23 conduct operations. Continuing technological  
24 advancements also require more complex and varied  
25 testing and training scenarios to be able to combat new

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1 threats.

2 The ranges, facilities and installations of the  
3 Northwest Training Range Complex are unique and provide  
4 training opportunities essential for the safety and  
5 readiness of military personnel and the success of the  
6 military mission.

7 Environmental stewardship is a priority goal of  
8 the Navy during mission training activities.

9 The Navy is committed to protecting the physical  
10 and natural environment and has established a  
11 successful track record of environmental stewardship  
12 while completing our mission.

13 To accomplish our environmental stewardship goals,  
14 the Navy implements protective measures on land and at  
15 sea to reduce potential effects to terrestrial and  
16 marine environment, and ensure public safety and  
17 accessibility.

18 I will now turn the presentation over to John  
19 Mosher from the U.S. Pacific Fleet to tell you about  
20 the Navy's Proposed Action in the Northwest Training  
21 Range Complex and give you an overview of the Draft EIS  
22 and the environmental analysis process.

23 MR. MOSHER: Thank you, Commander. My name  
24 is John Mosher, I'm here as the project manager for the  
25 Northwest Training Range EIS, representing the U.S.

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11

1 Pacific Fleet.

2 I'm here tonight to give you an overview of the  
3 findings contained in the Draft EIS. The Draft EIS was  
4 prepared by the Navy to comply with both the National  
5 Environmental Policy Act, or NEPA, and Executive Order  
6 12114, which requires federal agencies to consider the  
7 environmental effects for their activities that occur  
8 outside of U.S. territorial waters. The Draft EIS  
9 represents compliance with these environmental statutes  
10 and is an important part of the Navy's overall  
11 commitment to environmental stewardship as it tests and  
12 trains.

13 The Navy is the lead agency for the EIS, but the  
14 National Marine Fisheries Service is a cooperating  
15 agency pursuant to other federal regulations, in  
16 addition to their role as a regulator. The National  
17 Marines Fishery Service is a cooperating agency. In  
18 this role they provide early review of the Proposed  
19 Action, alternatives and analysis methods. As a  
20 regulator, they help to ensure that the EIS and the  
21 Proposed Action are in full compliance with the  
22 appropriate environmental laws and regulations.

23 The slide lists all of the actions that the Navy  
24 is proposing to conduct and analyze under the Draft  
25 EIS. All of the actions are included in -- excuse me,

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1 not all of the actions are included in each of the  
2 alternative. Over the next three slides, I'll discuss  
3 which actions are included in each alternative.

4 The Proposed Action is needed to provide a  
5 training environment consisting of ranges, training  
6 areas and range instrumentation, with the capability  
7 and capacity to fully support required training tasks  
8 for operational units in military schools. The  
9 Proposed Action supports the overall Navy mission as  
10 required by federal law.

11 Under the No Action Alternative, training and  
12 testing activities would continue at the current  
13 levels. This alternative would not accomodate  
14 increased or new training activities, and range  
15 investments and enhancements would not be implemented.

16 This alternative provides a baseline for assessing  
17 the potential environmental effects of the other  
18 alternatives.

19 Alternative 1 is a proposal designed to meet Navy  
20 and Department of Defense current and near-term  
21 training requirements.

22 This alternative includes an increase in training  
23 activities currently conducted, and accommodates force  
24 structure changes associated with the introduction of  
25 new weapon systems, vessels and aircraft. These

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1 include:

2 The EA-18G Growler Aircraft,  
3 SSGN Guided Missile Submarine,  
4 The P8-A Mulimission Maritime Aircraft  
5 and Unmanned Aerial Systems.  
6

7 Alternative 2 is also designed to meet current and  
8 near-term training requirements.

9 It includes all the activities identified under  
10 Alternative 1, plus an increase in the level of  
11 training activities identified in Level 1. In  
12 addition, Alternative 2 provides for the implementation  
13 of range enhancements, including:

14 New air and sea surface targets,  
15 The operation of air target services for  
16 locally-based aircraft and vessels,  
17 The development of an additional  
18 electronic signal emitter,  
19 The development of underwater training  
20 minefield, and  
21 The use of a portable undersea tracking  
22 range.  
23

24 Alternative 2 is the Navy's preferred alternative  
25 because it fully supports the type and frequency of

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1 activities required to achieve complete Fleet readiness  
2 and allows the Navy to carry out its mission in the  
3 range complex.

4 In preparing the Draft EIS the Navy evaluated the  
5 potential effects of the alternatives to the marine,  
6 terrestrial and human environments.

7 We have taken a comprehensive approach in  
8 assessing the potential effects to the physical,  
9 biological and socioeconomic resources.

10 We encourage you, if you haven't already, to  
11 review the Draft EIS which presents the findings of the  
12 Navy's environmental analysis for each of these  
13 resource areas.

14 The Navy's use of active sonar and explosives puts  
15 sound in the marine environment. While preparing the  
16 EIS, Navy scientists analyzed the potential effects of  
17 sound in the water to marine life, including marine  
18 mammals, sea turtles, fish, seabirds and marine  
19 invertebrates.

20 The method for determining potential sound  
21 exposures to marine animals was jointly developed by  
22 the Navy and the National Marine Fisheries Service, and  
23 represents the best science currently available.

24 Marine animal species have a widely varying  
25 sensitivity to sound based on frequencies. This is a

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1 reflection of how different species have evolved to  
2 cope with life in a marine environment, including  
3 differences in size, prey, habitats, and the predators  
4 they try to avoid.

5 Using the five general steps listed here, the Navy  
6 was able to calculate the number of potential marine  
7 animal exposures to sound from active sonar and  
8 explosives. Section 3.9 of the Draft EIS provides the  
9 results of the computer model as it relates to  
10 potential annual exposures to marine animals.

11 Marine mammal sensitivity was determined by  
12 biologists from the National Oceanic and Atmospheric  
13 Administration, and that information was entered into  
14 the computer model. Marine animals can react to  
15 different sounds in different ways. For example, the  
16 harbor porpoise found off the coast is very skittish.  
17 And therefore, sounds at lower volumes will cause them  
18 to startle much sooner than other cetaceans.

19 While there is the possibility for non-lethal  
20 impacts and altered behavior from the use of active  
21 sonar and explosives, no mortality of marine mammals  
22 is anticipated. In addition, the estimation of sound  
23 exposures does not consider the use of protective  
24 measures, such as sonar safety zones, which would  
25 reduce the likelihood of exposures at the the highest

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1 sound levels.  
2 No significant impact to sea turtles, fish,  
3 seabirds or marine invertebrates are anticipated from  
4 the use of active sonar.

5 The use of explosives in Navy activities may  
6 result in injury or mortality to individual fish or  
7 seabirds in the immediate area, however, these  
8 activities would not result in significant harm to  
9 overall bird or fish populations or habitat.

10 Given the relatively low number of explosive  
11 detonations associated with the Proposed Action, no  
12 significant impacts to marine invertebrates are  
13 anticipated. Also, the low occurrence of sea turtles  
14 in the Range Complex makes the potential for similar  
15 impact to sea turtles unlikely.

16 The Navy does not expect to harm marine mammal  
17 populations, but it recognizes that there may be  
18 potential effects to individual marine mammals.

19 To guard against harming individual whales and  
20 other marine mammals during training, the Navy has  
21 developed protective measures, including:

- 22 Posting a minimum of three well-trained
- 23 lookouts 24 hours per day.
- 24 Conducting aerial sweeps of training areas
- 25 during air operations,

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1 Establishing sonar safety zones during  
2 training exercises using mid-frequency  
3 sonar. In these events the sonar is powered  
4 down if a marine mammal enters within 1,000  
5 yards of the safety zone, and is powered off  
6 if the marine mammal enters within 200 yards  
7 of the sonar dome.  
8 The Navy also coordinates with the National  
9 Marine Fisheries Service and reports marine  
10 mammal sightings during major exercises.

11  
12 And over the past five years, the Navy has funded  
13 more than 100 million dollars in marine mammal  
14 research.

15 A summary of the findings of the Draft EIS are  
16 presented here, using language required by  
17 environmental regulations.

18 Most of the resources analyzing the Draft EIS, we  
19 found no significant impacts. For your review of the  
20 Draft EIS, the four areas you may want to examine in  
21 more detail for species that may be affected by the  
22 Proposed Action are endangered species of fish, sea  
23 turtles, marine mammals and bird species.

24 The Navy in consultation with the National Marine  
25 Fisheries Service and the U.S. Fish and Wildlife

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1 Service -- I'm sorry, the Navy is in consultation with  
2 the National Marine Fisheries Service and the U.S. Fish  
3 and Wildlife Service to ensure the effects to  
4 endangered species or threatened species listed under  
5 the Endangered Species Act are minimized.

6 The Northwest Training Range Complex EIS also  
7 analyzed the potential effects of the Navy's training  
8 on the human environment. The resource areas and  
9 issues analyzed include:

10 Cultural resources,  
11 Traffic,  
12 Socioeconomics,  
13 Environmental justice and the protection of  
14 children, and  
15 Public safety.

16  
17 The findings of the EIS show that no significant  
18 impacts to the human environment are likely from the  
19 implementation of the Proposed Action.

20 In addition, the Navy has initiated consultations  
21 with federally recognized Native American Tribes in the  
22 Northwest Training Range area.

23 In addition to complying with NEPA, the Navy also  
24 complies with all Federal environmental laws, including  
25 those listed here and all other applicable

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1 environmental laws and regulations.

2 The Navy has completed the first three steps of  
3 the NEPA process. We are now in the phase providing  
4 for public review of the Draft EIS.

5 To review the progress so far:

6 The EIS was initiated on July 31, 2007, and the  
7 Navy held public scoping meetings in Washington,  
8 Oregon and Northern California in September of 2007.

9 Government agencies, organizations and the public  
10 were encouraged to submit comments at the scoping  
11 meetings or to provide written comments through the  
12 public comment period. The comments received were  
13 considered in the preparation of the Draft EIS that  
14 we've discussed tonight.

15 We're now in the public hearing and documentation  
16 review step of the NEPA process. This phase is an  
17 essential part of the NEPA process because it allows  
18 for public review of the documents and comments on the  
19 Navy's analysis of environmental effects. We encourage  
20 you to provide your input by February 11th so it can  
21 be considered for incorporation during the development of  
22 the Final EIS. All comments received will be  
23 considered.

24 The Navy is committed to keeping the community  
25 informed throughout the continued development of the

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1 Northwest Training Range Complex EIS. These public  
2 hearings are just one of many public opportunities to  
3 share information about the EIS and, more importantly,  
4 to encourage your feedback and comments.

5 I'll now turn back over to Lewis Michaelson to  
6 describe how to obtain more information and how to  
7 comment on the EIS.

8 MR. MICHAELSON: Thank you, John. In  
9 addition to holding these public hearings, the Navy has  
10 established a web site that you should know about to  
11 make it easier for you to find and comment on the  
12 environmental documents. The Draft EIS, for example,  
13 is posted on that web site. It also has additional  
14 background information and links to the fact sheets  
15 that are available here tonight.

16 You may also review the Draft EIS and other public  
17 available documents related to the Northwest Training  
18 Range Complex EIS by visiting the designated  
19 information repositories. The addresses of the  
20 repositories are provided in the fact sheets that you  
21 received tonight.

22 Both the information repositories and the project  
23 web site contain project documents, fact sheets and  
24 background information for you to review.

25 The Navy welcomes your review and input on the

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21

1 analysis contained in the Draft EIS. And there are  
2 several ways for you to submit comments. We are  
3 accepting oral comments here tonight immediately after  
4 this presentation.

5 Written comments can be submitted by filling out a  
6 comment sheet, and either dropping it in the drop box  
7 located at the registration table, or you can mail it  
8 to the address provided on the fact sheets.

9 Comments may also be submitted electronically via  
10 the project web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com).  
11 That's available in the fact sheets, you don't have to  
12 to write that down.

13 All comments should be received by February 11,  
14 2009 in order to ensure that they are considered in the  
15 Final EIS.

16 It's now the time where we would begin the oral  
17 comment portion of the public hearing. Do we have any  
18 sign up sheets yet? Okay. Is there anybody who has  
19 been inspired by this presentation to want to offer up  
20 an oral comment? Oh yes, sorry, I should have warned  
21 about but about the lights being turned back on. Is  
22 there anybody here that's been moved to provide oral  
23 comment?

24 If not, we will be adjourned. We're here until  
25 8:30. We can answer more questions if you have them,

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1 so please feel free to go back to the poster stations.  
2 Thank you very much.  
3 (Hearing adjourned at 8:05 p.m.)  
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1  
2 STATE OF WASHINGTON )  
3 ) ss  
4 COUNTY OF SNOHOMISH )  
5 I, LESLIE ANDRES, Certified Shorthand Reporter and  
6 Notary Public duly and qualified in and for the State  
7 of Washington do hereby certify that the aforementioned  
8 hearing was held before me at the time and place set  
9 forth.  
10 I further certify that the foregoing transcript is  
11 a true and correct transcript of my original  
12 stenographic notes.  
13 I further certify that I am neither attorney or  
14 counsel for, nor related to or employed by any of the  
15 parties to the action in which this deposition is  
16 taken; and furthermore, that I am not a relative or  
17 employee of any attorney or counsel employed by the  
18 parties hereto or financially interested in the action.  
19 IN WITNESS WHEREOF, I have hereunto set my hand  
20 and affixed my Notarial Seal this 6th day of  
21 February 2009.  
22  
23  
24  
25

LESLIE ANDRES  
NOTARY PUBLIC

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NAVY'S NORTHWEST TRAINING RANGE COMPLEX DRAFT EIS/OEIS

OPEN HOUSE and PUBLIC HEARING

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January 29, 2009  
5:00 p.m.

Grays Harbor College Cafeteria  
1602 Edward P. Smith Drive  
Aberdeen, WA 98520

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A P P E A R A N C E S

Moderator:

Lewis Michaelson

Executive Officer:

Commander Matthew Miller

Project Manager:

Mr. John Mosher

Reported by: Leslie A. Andres, CCR 2489

North Sound Reporting

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LIST OF SPEAKERS

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Harold Brumstad	27

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BE IT REMEMBERED that on the 29th day of  
January 2009, beginning at the hour of 5:00 p.m. of  
said day, at the Grays Harbor College Cafeteria in the  
City of Aberdeen, County of Grays Harbor, State of  
Washington, the following proceedings were taken before  
Leslie Andres, a Notary Public in and for the State of  
Washington.

WHEREUPON, the following proceedings  
were had and testimony given, to wit:

\*\*\*

P R O C E E D I N G S

MR. MICHAELSON: Good evening, and thank you  
for coming tonight. My name is Lewis Michaelson, and  
I'll be the moderator for tonight's hearing on the  
Navy's Northwest Training Range Complex Draft  
Environmental Impact Statement, Overseas Environmental  
Impact Statement, or Draft EIS as we will refer to it  
as.

If I can ask you now, if you have not already, to  
please turn off your cell phones, at least turn the  
sound off, so people are not interrupted when they're

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1 speaking, I would greatly appreciate it.  
2 Tonight here to receive your comments are  
3 Commander Matthew Miller, Executive Officer of the  
4 Naval Air Station Whidbey Island, and Mr. John Mosher,  
5 the project manager from the Navy's Pacific Fleet.  
6 Mrs. Kimberly Kler, she's waving her hand right now,  
7 she's also with us. She's the primary point of contact  
8 for sharing your written comments about the project.

9 So let's look at the agenda tonight. Hopefully  
10 you all had the opportunity to talk to the many  
11 knowledgeable experts and program officials who are  
12 staffing the exhibits during the open house portion.  
13 The primary purpose for this portion of the hearing is  
14 for the panel members to be able to listen to your  
15 comments firsthand. They will not be answering  
16 questions during this phase. Comments and questions  
17 will be addressed in the Final EIS.

18 After I finish this introduction Commander Miller  
19 will give a brief overview of the Navy's activities in  
20 the Northwest Training Range Complex.

21 Next Mr. John Mosher will brief you on the  
22 environmental impact analysis process and summarize the  
23 results reported from the Draft EIS.

24 The last item on the agenda, however, is really  
25 the most important. The public comment section is your

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1 opportunity to provide information and make statements  
2 for the record.

3 Your input ensures that the decision makers can  
4 benefit from your knowledge of the local area and any  
5 environmental effects you think may result from the  
6 Proposed Action and alternatives.

7 Keep in mind that the EIS process is intended to  
8 ensure that decision makers will be fully informed  
9 about the potential environmental impacts associated  
10 with the various alternatives before they decide on a  
11 course of action.

12 Please remember also that comments on issues  
13 unrelated to this EIS are beyond the scope of this  
14 hearing.

15 To request an opportunity to make a verbal comment  
16 during tonight's hearing, please fill out a verbal  
17 comment card available at the registration table or you  
18 can get one from Kimberly standing right there, if you  
19 would like to speak and haven't already filled one  
20 out.

21 Every speaker, including public officials,  
22 organizations, spokespersons and private individuals  
23 will have four minutes each to provide his or her  
24 comment.

25 If you don't feel comfortable standing up here

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1 tonight to make a statement you have until February 11,  
2 2009 to submit a written statement for consideration in  
3 the Final EIS. Or after we finish taking public  
4 comments here you can provide your comments privately  
5 orally one-on-one with the court reporter, if you would  
6 like to.

7 Keep in mind, however, that written comments are  
8 given the same consideration as verbal comments offered  
9 here tonight.

10 So now it is my pleasure to introduce Commander  
11 Miller.

12 COMMANDER MILLER: Thank you, Lewis.

13 Welcome to the public hearings for the Northwest  
14 Training Range Complex Draft Environmental Impact  
15 Statement.

16 As Lewis said, my name is Commander Matt Miller,  
17 and I'm the Executive Officer of Naval Air Station  
18 Whidbey Island.

19 I want to thank you on behalf of the United States  
20 Navy for attending this evening. This is one of five  
21 public hearings the Navy is holding in Washington,  
22 Oregon and Northern California for the Northwest  
23 Training Range Complex Draft EIS.

24 As Lewis mentioned, we hope you had the chance to  
25 visit the poster stations this evening and meet with

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1 the Navy project team members.

2 A little bit of background for me, I've been a  
3 commissioned officer in the Navy for over 21 years.  
4 I'm originally from Silver Spring, Maryland. I  
5 graduated from the University of Maryland. I've been  
6 the Executive Officer for about a year at NAS Whidbey  
7 Island. Before that I was the operations officer.  
8 Prior to that I was on the USS Abraham Lincoln  
9 stationed in Naval Station Everett. And before that  
10 back at Whidbey as an instructor at the electronic  
11 attack weapons school. I've been lucky to be in the  
12 northwest for almost ten years. It's sometimes a  
13 challenge to do on active duty, but I'm originally from  
14 the east coast, but now I'm a northwest transplant, and  
15 I don't plan on going back.

16 I am a carrier aviator, flew the Intruder, and  
17 also the EA-6B electronic countermeasures officer.  
18 I've got over 2,000 hours flying on carrier aircraft.

19 As Lewis stated before, you will have an  
20 opportunity to make oral comments regarding the content  
21 of the environmental analysis. Written comments will  
22 be accepted tonight and throughout the public comment  
23 period, which closes on February 11, 2009.

24 The Northwest Training Range Complex is a military  
25 training area that has been in use by the Navy since

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1 World War II. It is comprised of two primary  
2 components; the Offshore area and the Inshore area.

3 The mission of the Northwest Training Range  
4 Complex is to serve as principal backyard training  
5 range for those units homeported in the Pacific  
6 Northwest area, including surface ship, submarine,  
7 aviation and Explosive Ordnance Disposal units located  
8 at Naval Air Station Whidbey Island, Naval Station  
9 Everett, Puget Sound Naval Shipyard, Naval Base  
10 Kitsap-Bremerton and Naval Base Kitsap-Bangor.

11 The range complex also supports military units  
12 from outside the the range complex areas, such as naval  
13 special warfare units. The range complex includes  
14 ranges, training areas and airspace that extend west to  
15 250 nautical miles beyond the coast of Washington,  
16 Oregon and Northern California, and east of the  
17 Washington/Idaho border.

18 The Offshore component of the range encompasses  
19 122,400 square nautical miles of air, surface and  
20 subsurface ocean training areas. The Inshore component  
21 includes about 875 acres of land on Whidbey Island and  
22 Indian Island, more than 12,000 square nautical miles  
23 of Special Use Airspace, and surface and subsurface  
24 training areas within the Puget Sound.

25 Military activities currently conducted in the

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1 Northwest Training Range Complex can be divided into  
2 primary mission areas listed here.

3 To accomplish its mission in the Pacific  
4 Northwest, it is critical for the Navy to maintain and  
5 operate the necessary facilities and to provide those  
6 critical training areas to U.S. Navy commands so that  
7 forces can train realistically.

8 Realistic training ensures U.S. Navy personnel  
9 maintains the highest level of readiness and capability  
10 and is the single greatest asset the military has in  
11 preparing and protecting American service men and women  
12 to defend the nation. There is no such thing as  
13 routine training when it comes to practicing combat  
14 skills.

15 To ensure Navy forces are fully ready prior to  
16 deployments requires specialized ranges where military  
17 personnel can learn, through hands-on experience, the  
18 technical skills necessary to effectively plan and  
19 conduct operations. Continuing technological advances  
20 also require more complex and varied testing and  
21 training scenarios to be able to combat new threats.

22 The ranges, facilities and installation of the  
23 Northwest Training Range Complex are unique and provide  
24 training opportunities essential for the safety and  
25 readiness of military personnel and the success of the

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1 military mission.

2 Environmental stewardship is a priority goal of  
3 the Navy during mission training activities.

4 The Navy is committed to protecting the physical  
5 and natural environment and has established a  
6 successful track record of environmental stewardship  
7 while completing our mission.

8 To accomplish our environmental stewardship goals,  
9 the Navy implements protective measures on land and at  
10 sea to review potential effects to the terrestrial and  
11 maritime and marine environment, and ensure public  
12 safety and accessibility.

13 I will now turn the presentation over to John  
14 Mosher from the U.S. Pacific Fleet, who will tell you  
15 about the Navy's Proposed Action for the Northwest  
16 Training Range Complex and give you an overview of the  
17 Draft EIS and the environmental analysis process.

18 MR. MOSHER: Thank you, Commander.

19 My name is John Mosher, I'm the project manager  
20 for the Northwest Training Range Complex EIS. I'm here  
21 tonight to give you an overview of the findings of the  
22 Draft EIS.

23 The EIS was prepared by the U.S. Navy to comply  
24 with both the National Environmental Policy Act - or  
25 NEPA - as well as Executive Order 12114, which requires

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1 federal agencies to consider the environmental effects  
2 of their activities that occur outside of the  
3 territorial waters of the United States. The Draft EIS  
4 represents compliance with these environmental statutes  
5 and is an important part of the Navy's overall  
6 commitment to environmental stewardship as it tests and  
7 trains.

8 The Navy is the lead agency for the EIS. The  
9 National Marine Fisheries Service is a cooperating  
10 agency, in addition to their role as a regulator. As a  
11 cooperating agency, they provide early review of the  
12 Proposed Action, alternatives and analysis methods. As  
13 a regulator, they help ensure that the EIS and the  
14 Proposed Action are in full compliance with the  
15 environmental laws and regulations.

16 This slide lists the actions the Navy is proposing  
17 to conduct that are analyzed in the Draft EIS. Not all  
18 of the actions are included in each alternative. Over  
19 the next three slides, I will discuss which actions are  
20 included in each alternative.

21 The Proposed Action is needed to provide a  
22 training environment consisting of ranges, training  
23 areas and range instrumentation, with the capacity for  
24 full support -- to fully support required training  
25 tasks for operational units and military schools. The

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1 proposed action supports the overall Navy mission as  
2 required by federal law.

3 Under the No Action alternative, training and  
4 testing activities would continue at current levels.  
5 This alternative would not accommodate increased or new  
6 training activities, and range investments and  
7 enhancements would not be implemented.

8 The No Action alternative provides a baseline for  
9 assessing the potential environmental effects of the  
10 other alternatives.

11 Alternative 1 is a proposal designed to meet the  
12 Navy and Department of Defense current and near-term  
13 training requirements.

14 This alternative includes an increase in training  
15 activities currently conducted, and accommodates four  
16 structure changes associated with the introduction of  
17 new weapon systems, vessels and aircraft. These  
18 include:

19 The EA-18G Growler Aircraft,  
20 The SSGN Guided Missile Submarine,  
21 The P8-A Multimission Maritime Aircraft and  
22 Unmanned aerial systems.

23  
24 Alternative 2 is also designed to meet current and  
25 near-term training requirements as well.

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1 It includes all activities identified under  
2 Alternative 1; plus an increase in the level of  
3 training activities identified in Level 1.

4 In addition, Alternative 2 provides for the  
5 implementation of range enhancements, including:

6 New air and sea surface targets,  
7 the operation of air target surfaces for  
8 locally-based aircraft and vessels,  
9 The development of an additional electronic  
10 signal emitter,  
11 The development of an underwater training  
12 minefield, and  
13 The use of portable undersea tracking range.

14  
15 Alternative 2 is the Navy's preferred alternative  
16 because it fully supports the type and frequency of  
17 activities required to achieve complete Fleet readiness  
18 and to carry out its mission in the range complex.

19 In preparing the Draft EIS, the Navy evaluated the  
20 potential effects of the alternatives to the marine,  
21 terrestrial and human environment.

22 We have taken a comprehensive approach in  
23 assessing the potential effects to physical, biological  
24 and socioeconomic resources.

25 We encourage you, if you have not already, to

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1 review the Draft EIS which presents the Navy's findings  
2 and environmental analysis for each of these resource  
3 areas.

4 The Navy's use of active sonar and explosives puts  
5 sound into the marine environment. While preparing the  
6 Draft EIS, Navy scientists analyzed the potential  
7 effects of sound in the water to marine life, including  
8 marine mammals, sea turtles, fish, seabirds and marine  
9 invertebrates.

10 The method for determining potential sound  
11 exposures to marine animals was jointly developed by  
12 the Navy and the National Marine Fishery Service, and  
13 represents the best science currently available.

14 Marine mammal species have widely varying  
15 sensitivities to sound based on frequency. This is a  
16 reflection of how different species have evolved to  
17 cope with life in the marine environment, differences  
18 in size, prey, habitats, and the predators they try to  
19 avoid are all reflected in how these species have  
20 evolved.

21 Using the five general steps listed here, the Navy  
22 was able to calculate the number of potential marine  
23 animal exposures to sound from active sonar and  
24 explosives. Section 3.9 of the Draft EIS provides the  
25 results of the computer model as it relates to the

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1 potential annual exposures to marine animals.

2 Marine mammal sensitivity was determined by  
3 biologists from the National Oceanic and Atmospheric  
4 Administration, and that information was entered into  
5 the computer model. Marine animals can react  
6 differently to different sounds. For example, the  
7 harbor porpoise found off the coast is very skittish.  
8 Therefore, sounds lower in volume will cause them to  
9 startle more frequently or sooner than in other  
10 cetaceans.

11 While there is the possibility for non-lethal  
12 impacts and altered behavior from the use of active  
13 sonar and explosives, no mortality to marine animals  
14 is anticipated. In addition, the estimation of sound  
15 exposures does not consider the use of protective  
16 measures, such as sonar safety zones, which would  
17 reduce the likelihood of exposures at the highest sound  
18 levels.

19 No significant impact to sea turtles, fish,  
20 seabirds or marine invertebrates are anticipated from  
21 active sonar use.

22 The use of explosives in Navy activities may  
23 result in injury or mortality to individual fish or  
24 seabirds in the immediate area of the training.  
25 However, these activities would not result in

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1 significant harm to overall bird or fish populations or  
2 habitat.

3 Given the relatively low number of explosive  
4 detonations associated with the proposed action, no  
5 significant impacts to marine invertebrates are  
6 anticipated. Also, the low occurrence of sea turtles  
7 in the range complex area makes the potential for  
8 significant impact to turtles unlikely.

9 The Navy does not expect harm -- does not expect  
10 to harm marine mammal populations, but it recognizes  
11 that there may be potential effects to individual  
12 marine mammals.

13 To help guard against harming individual whales or  
14 other marine mammals during training, the Navy has  
15 developed protective measures, including:

16 Posting of a minimum of three well-trained  
17 lookouts for 24 hours a day,  
18 Conducting aerial sweeps of training areas  
19 used during air operations,  
20 Establishing a safety zone during training  
21 exercises using mid-frequency sonar. Sonar  
22 is powered down if a marine mammal enters  
23 within the 1,000 yard safety zone, and sonar  
24 is powered off if a marine mammal enters  
25 within 200 yards of the sonar dome.

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17

1  
2 The Navy also coordinates with the National Marine  
3 Fisheries Service to report marine mammals sighted  
4 during major exercises.

5 Over the past five years the Navy has funded  
6 more than 100 million dollars in the research of marine  
7 mammals.

8 A summary of findings of the Draft EIS are  
9 presented here, using language required by  
10 environmental regulations.

11 For most of the resources analyzed in the Draft  
12 EIS, we found no significant impacts. For your review  
13 of the Draft EIS, the four areas you may want to  
14 examine in more detail for species that may be affected  
15 by the Proposed Action include endangered species of  
16 fish, sea turtles, marine mammals and bird species.

17 The Navy is in consultation with the National  
18 Marine Fisheries Service and the U.S. Fish and Wildlife  
19 Service to ensure the effects to endangered or  
20 threatened species listed under the Endangered Species  
21 Act are minimized.

22 The Range Complex EIS also analyzes the potential  
23 effects of Navy training on the human environment. The  
24 resource areas and issues analyzed include:

25 Cultural resources,

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18

1 Traffic,  
2 Socioeconomics,  
3 Environmental justice and the protection of  
4 children, and  
5 Public safety.

6  
7 The findings in the EIS show that no  
8 significant impacts to the human environment are likely  
9 from implementation of the Proposed Action.

10 In addition, the Navy has initiated consultations  
11 with federally recognized Native American Tribes in the  
12 Northwest Training Range Complex area.

13 In addition to complying with NEPA, the Navy  
14 also complies with other applicable federal  
15 environmental laws, including those listed here and  
16 other applicable laws and regulations.

17 The Navy has completed the first three steps of  
18 the NEPA process, and we're in the phase now providing  
19 for public review of the Draft EIS.

20 To review our progress so far, the EIS was  
21 initiated on July 31, 2007, and the Navy held public  
22 scoping meetings in Washington, Oregon and Northern  
23 California in September 2007.

24 Government agencies, organizations and the public  
25 were encouraged to submit comments at the scoping

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1 meetings or to provide written comments throughout the  
2 public comment period. The comments received were  
3 considered in the preparation of the Draft EIS that  
4 we've discussed here tonight.

5 We are now in the public hearing and  
6 documentation -- and document review step of the NEPA  
7 process. This phase is an essential part of the NEPA  
8 process, because it allows the public to review the  
9 document and comment on the Navy's analysis of the  
10 environmental effects. We encourage you to provide  
11 your input by February 11th so it can be considered in  
12 the incorporation during the development of the Final  
13 EIS. All comments received will be considered.

14 The Navy is committed to keeping the community  
15 informed throughout the continued development of the  
16 Northwest Training Range Complex EIS.

17 These public hearings are just one of many  
18 opportunities to share information about the EIS, and  
19 more importantly, to encourage your feedback and  
20 comments.

21 I'll now turn back to Lewis Michaelson to describe  
22 how to obtain more information and how to comment on  
23 the Draft EIS.

24 MR. MICHAELSON: Thanks. In addition to  
25 holding these public hearings, the Navy has established

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1 a web site to make it easy for you to find and comment  
2 on environmental documents. The Draft EIS is posted to  
3 the web site. The web site also has additional  
4 background information and links to the fact sheets  
5 that are available here tonight.

6 You may also review the Draft EIS and other  
7 publicly available documents related to the Northwest  
8 Training Range Complex EIS by visiting the designated  
9 information repositories. The addresses  
10 of the repositories are provided in the fact sheet.

11 The Navy welcomes your review and input on the  
12 analysis contained in the Draft EIS and there's several  
13 ways for you to submit comments.

14 First, obviously, we're accepting oral comments  
15 tonight immediately after this presentation. Written  
16 comments can be submitted by filling out a comment  
17 form, and either dropping it in the drop box located at  
18 the registration table or mailing it to the address,  
19 which is listed on the fact sheets. Comments may also  
20 be submitted electronically via the web site at  
21 [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com). If you don't already have  
22 that e-mail address, it's also contained in the fact  
23 sheets.

24 Please keep in mind that the comments should be  
25 received by February 11, 2009 in order to ensure that

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1 they are considered in the Final EIS.

2 So we're ready to begin the oral comment portion  
3 of the public hearing. To ensure that we get an  
4 accurate record of what you have to say, please help me  
5 by respecting the following ground rules.

6 First, please speak clearly and slowly into the  
7 microphone at the lectern starting with your name and  
8 any organization you represent, if that applies.

9 Second, as I mentioned, each of you will be  
10 allowed four minutes to speak. Depending upon the  
11 number of speakers, we may have time for second  
12 helpings, and I think we will definitely have that  
13 tonight.

14 Third, if you've prepared a written statement, you  
15 may turn it in at the registration table or you may  
16 read it outloud if you can do so within the four-minute  
17 time limit.

18 Fourth and finally, please honor any request that  
19 I make for you to stop speaking when you reach the  
20 four-minute time limit. In order to make that easy for  
21 you to know when that time is for you to comfortably  
22 wrap up your comments, when you have 30 seconds left of  
23 your four minutes I will hold up this card, and when  
24 you've reached four minutes I will hold up this one so  
25 that you will know when your four minutes is done.

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1 We're now ready to begin taking oral comments. I  
2 have three comment cards that have been handed to me.  
3 I'll go ahead and read the names so you will know in  
4 the order in which you'll be coming up. Franz  
5 Schneider, Ann Schneider and Harold Brumstad. Mr.  
6 Schneider, you're first. All I need you to do is  
7 give your name. Thank you.

8 MR. SCHNEIDER: In a sense I'm totally  
9 overwhelmed by the presentation on the part of the Navy  
10 that fed us the summaries of thousands of words in a  
11 few minutes. And it's absolutely impossible to make  
12 rational sense out of it. One feels one is in the  
13 Kafkaesque situation where anything that one brings up  
14 will be commented on, prescribed or interpreted,  
15 avoided, et cetera.

16 My question is -- and it is not clear from any of  
17 the material I saw tonight -- that the area we are  
18 talking about is supposed to be enlarged, isn't it? Or  
19 is it the old areas? And what are the dimensions of  
20 the area?

21 The thing that intrigues me most is the kind of  
22 combat threat all this is supposed to counteract. Whom  
23 are we erecting this system against? Silent running  
24 submarines from Iran or North Korea? It's almost like  
25 Dr. Strangelove. When Oppenheimer left office, the man

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1 who created the first atom bomb, we had 300 atom bombs,  
2 now we have 70,000. What are we doing with all of  
3 this? And who is going to pay for this?

4 I would like to use an analogy using some of your  
5 own language. You said that this is safe and that your  
6 models are relatively perfect and backed up by the  
7 latest science, yet, if you were to say that this  
8 medication is safe when it led to injury or mortality,  
9 it was only an exception, and it is statistically  
10 insignificant. And I think that's what you're doing  
11 with your sonar.

12 You say the whales that have been beached are  
13 merely a matter of a few occurrences that happen now  
14 and then, yet it's exactly the exceptions that give us  
15 pause, because the exceptions usually goofs the rule.

16 Another point that I would like to look at some  
17 enlightenment on, why did four supreme court justices  
18 rule against this project? And absolutely nothing has  
19 been said about that.

20 As a matter of fact, this is an argument pro, and  
21 there are no arguments con. And I would like to see  
22 some arguments con. Are there non-scientific  
23 organizations that have commented on this program? And  
24 where are their comments?

25 I don't want to get in trouble with my wife, I

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1 better shut up and leave you with this thought; it's  
2 not a dirty lymeric, but it's a lymeric; "When humans  
3 who like to be free degrade our earth and the sea all  
4 the navies on earth won't be of much worth, for our  
5 world will be dead. Don't you see?"

6 On the other hand, I have the highest respect for  
7 our soldiers.

8 MR. MICHAELSON: Thank you. Thank you very  
9 much. Ann Schneider.

10 MRS. SCHNEIDER: I'm sorry for you, but I'm  
11 not a speaker.

12 MR. MICHAELSON: I have to make sure that  
13 you're speaking into the microphone. Would you mind  
14 starting over? I'm sorry, Mrs. Schneider.

15 MRS. SCHNEIDER: I'm not a speaker, and I am  
16 sorry for you having to listen to this jumble. I  
17 haven't any background information, so what I am about  
18 to say is what I learned from when I walked in the door  
19 here.

20 And from this EIS, quote, you want to increase the  
21 number of training activities and to accommodate force  
22 structure changes. This gives me just a chill of  
23 fright. That's an open-ended assignment. What is the  
24 civilian oversight structure that will go into the  
25 future with you with this endeavor? I didn't see any

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25

1 balances of power.

2 On page one you have an operating, quote, area  
3 over the Olympic Host National Marine Sanctuary. This  
4 does not seem at all right to me. It also is a  
5 restricted area. Restricted to the Navy only?

6 Page three, sonar, quote, could lead to unquote,  
7 harm for, quote, marine animals. You don't know. You  
8 know potential affects of explosions on marine life.  
9 You are quote, evaluating, closed quote, and in a  
10 different spot you are quote, modeling. Where are your  
11 findings? Where are the conclusions from those  
12 findings? I didn't see them in the room.

13 Four, on page four of this book, what are sonar  
14 safety zones? I couldn't see a definition. That  
15 reduce quote, explosions at the highest sound levels,  
16 closed quote. It's so general it's meaningless to me.

17 Page six, quote, protective measures, closed  
18 quote, open quote, would provide a high level of  
19 protection for birds.

20 Page seven, what are your protective measures?  
21 Quote, developing a science, closed quote. Open quote,  
22 resource policy. Thank you. This is not good enough.

23 On page ten after generalized statements you  
24 conclude always with, "No significant impacts," but no  
25 proof. Only for commercial fishing do you say there is

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26

1 potential for economic impact. Commercial fishing here  
2 can bear no more negative impacts.

3 I'm against this EIS because it's incomplete for  
4 me.

5 MR. MICHAELSON: Thank you. Next speaker is  
6 Harold Brumstad.

7 MR. BRUMSTAD: My name is Harold Brumstad,  
8 I'm just here representing myself.

9 I'm pretty impressed by the precautions that the  
10 Navy takes. I was a participant in many of these  
11 exercises and training exercises that you're proposing  
12 to do 45 years ago. And it's a lot different now than  
13 what precautions you're taking and what's being done to  
14 protect the environment which has become an important  
15 consideration for everything we do anymore, and it's  
16 important to all of our citizens.

17 I'm not too sure I've often thought many times the  
18 impacts of military operations, and the way the battles  
19 that went on, and the South Pacific, the ships that  
20 were sinking, that were sunk in the Atlantic and the  
21 Pacific, and I've never heard of the -- any real  
22 impacts. That's not saying that that's a good thing,  
23 but you look at Pearl Harbor itself, it's a pretty good  
24 ecosystem at the time. And I don't know how long it  
25 took to heal.

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1 But what I'm saying is that I'm familiar enough  
2 with the threats that unfortunately still exist in this  
3 world and of the training that goes on to face that  
4 threat. And I thank the Navy for what they're doing  
5 throughout the world at this time, and their  
6 precautions and the work that goes into ensuring that  
7 these protections are made. It's important to all  
8 citizens, and our environment is very important.

9 And I would just like to close saying that I  
10 highly support, proud to support the Navy in this  
11 effort to increase their training and be able to  
12 operate the high tech equipment that exists at this  
13 time. And I would support Alternative 2.

14 MR. MICHAELSON: Thank you.

15 Has anyone turned in another card in the  
16 meantime? Is there anyone else who's been inspired by  
17 our first three speakers that they would like to speak  
18 at this time?

19 If not, is there anyone who already came up once  
20 who would like to come up for another chance, another  
21 four minutes? Anything you didn't get a chance to  
22 say? Kind of hard to top the lymeric.

23 Then we will adjourn. We'll be here until 8:30,  
24 and you're welcome to go back to the stations and ask  
25 additional questions. Perhaps get an answer on whether

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1 there's an expansion or not, that question that you  
2 have. You should be able to get that at the poster  
3 station. Thank you. We're adjourned.

4 (Hearing adjourned at 7:40 p.m.)  
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1  
2 STATE OF WASHINGTON )  
3 ) ss  
4 COUNTY OF SNOHOMISH )  
5 I, LESLIE ANDRES, Certified Shorthand Reporter and  
6 Notary Public duly and qualified in and for the State  
7 of Washington do hereby certify that the aforementioned  
8 hearing was held before me at the time and place set  
9 forth.

10 I further certify that the foregoing transcript is  
11 a true and correct transcript of my original  
12 stenographic notes.

13 I further certify that I am neither attorney or  
14 counsel for, nor related to or employed by any of the  
15 parties to the action in which this deposition is  
16 taken; and furthermore, that I am not a relative or  
17 employee of any attorney or counsel employed by the  
18 parties hereto or financially interested in the action.

19 IN WITNESS WHEREOF, I have hereunto set my hand  
20 and affixed my Notarial Seal this 6th day of  
21 February 2009.

22  
23 LESLIE ANDRES  
24 NOTARY PUBLIC  
25

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NORTHWEST TRAINING RANGE COMPLEX  
DRAFT ENVIRONMENTAL IMPACT STATEMENT/  
OVERSEAS ENVIRONMENTAL IMPACT STATEMENT

PUBLIC HEARING

AND

PUBLIC COMMENT SESSION

TRANSCRIPT OF PROCEEDINGS

Volume I --- Pages 1 - 44

DATE: January 30, 2009

TIME: 7:00 - 8:30 p.m.

LOCATION: Hatfield Marine Science Center  
Visitor Center  
2030 SE Marine Science Drive  
Newport, Oregon 97365

MODERATOR: Lewis Michaelson

REPORTED BY:  
ANNE M. DUFFEY  
OREGON CSR NO. 07-0405

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1 NEWPORT, OREGON, FRIDAY, JANUARY 30, 2009, 7:05 P.M.

2  
3 MR. MICHAELSON: Good evening and thank you for  
4 coming tonight. My name is Lewis Michaelson and I will be  
5 the moderator for tonight's hearing on the Navy's Northwest  
6 Training Range Complex Draft Environmental Impact  
7 Statement/Overseas Environmental Impact Statement or Draft  
8 EIS as we will refer to it as.

9 Here to receive your comments tonight are  
10 Commander Matthew Miller, Executive Officer of Naval Air  
11 Station Whidbey Island, and Mr. John Mosher, the Project  
12 Manager for the CIS and the Navy's Pacific Fleet. Also with  
13 us is Mrs. Kimberly Kler waving to you in the back, the  
14 Project Coordinator for the Naval Facilities Engineering  
15 Command Northwest who is the primary point of contact for  
16 sharing your written comments about the project.

17 Let's look at the agenda for tonight.  
18 Hopefully, you all had the opportunity to talk to the many  
19 knowledgeable experts and program officials who were  
20 staffing the exhibits during the open house. The primary  
21 purpose for this portion of the hearing is for the panel  
22 members here to listen to your comments firsthand. They  
23 will not be answering questions during this phase of the  
24 proceedings. Comments and questions will be addressed in  
25 the Final EIS.

1 After I finish this introduction, Commander  
2 Miller will give a brief overview of the Navy's activities  
3 in the Northwest Training Range Complex. Next Mr. John  
4 Mosher will brief you on the Environmental Impact Analysis  
5 process and summarize the results reported in the Draft EIS.  
6 The last item on the agenda, however, is the most important.  
7 The public comment session is your opportunity to provide  
8 information and make statements for the record. Your input  
9 ensures that the decision makers can benefit from your  
10 knowledge of the local area and any environmental effects  
11 that you think may result from the Proposed Action and  
12 alternatives.

13 Keep in mind that the EIS process is intended  
14 to ensure that decision makers will be fully informed about  
15 the potential environmental impact associated with the  
16 various alternatives before they decide on a course of  
17 action. Also, remember that comments issued -- comments on  
18 issues unrelated to this EIS are beyond the scope of this  
19 hearing.

20 To request an opportunity to make a verbal  
21 comment during tonight's hearing, please fill out a verbal  
22 comment request card such as this. We've got more down  
23 here, up there, and down here anywhere so if you haven't yet  
24 and you would like to, just ask them for one and fill it  
25 out. Every speaker including public officials,

1 organizational spokesperson and private individuals will  
 2 have four minutes each to provide his or her comment. If  
 3 you don't feel comfortable standing up here tonight to make  
 4 a statement, you have until February 11th, 2009, to submit a  
 5 written statement for consideration in the Final EIS or  
 6 after this session, you can make private comments to the  
 7 court reporter one-on-one. Keep in mind, the written  
 8 comments are given the same consideration as the verbal  
 9 comments offered here tonight.

10 Now it is my pleasure to introduce Commander  
 11 Miller.

12 COMMANDER MILLER: Thank you, Lewis. Welcome  
 13 to the public hearings for the Northwest Training Range  
 14 Complex Draft Environmental Impact Statement. My name's  
 15 Commander Matt Miller and I'm the Executive Officer of the  
 16 Naval Air Station Whidbey Island. I want to thank you on  
 17 behalf of the United States Navy for attending this evening.

18 This is one of five published hearings -- this  
 19 is one of five public hearings the Navy is holding in  
 20 Washington, Oregon, Northern California for the Northwest  
 21 Training Range Complex Draft EIS. As Lewis mentioned, we  
 22 hope you had the opp- -- the chance to visit the poster  
 23 stations this evening and meet with Navy project team  
 24 members.

25 A little bit about my background. I've been

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1 wearing a Navy uniform for about 26 years. I've been a  
 2 commissioned officer for about 21 years. I'm originally  
 3 from Silver Spring, Maryland, outside of Washington D.C. I  
 4 graduated from the University of Maryland. I've been the  
 5 Executive Officer for a year. Before that I was the  
 6 Operations Officer, Whidbey Island. My recent tours in the  
 7 area: I was on the USS Abraham Lincoln stationed at Everett  
 8 Naval Station; I was an instructor at the Electronic Attack  
 9 Weapons School Whidbey Island. So I've been in the area --  
 10 I've been lucky to be in the area of the Northwest for the  
 11 last ten years and I'm not going back to the East Coast. So  
 12 I like it out here in the Northwest.

13 As Lewis stated before, you'll have an  
 14 opportunity to make oral comments regarding the content of  
 15 the environmental analysis. Written comments will be  
 16 accepted tonight and throughout the public comment period  
 17 which closes on February 11th, 2009.

18 The Northwest Training Range Complex is a  
 19 military training area that has been in use by the Navy  
 20 since World War II. It is comprised of two primary  
 21 components; the off-shore area and the in-shore area. The  
 22 mission of the Northwest Training Range Complex is to serve  
 23 as the principal backyard training range for those units  
 24 homeported in the Pacific Northwest area including surface  
 25 ship, submarine, aviation and Explosive Ordnance Disposal

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1 units located at the Naval Air Station Whidbey Island, Naval  
2 Station Everett, Puget Sound Naval Shipyard, Naval Base  
3 KitsapBremerton and Naval Base KitsapBangor. The Range  
4 Complex also supports military units from outside the Range  
5 Complex area such as Naval Special Warfare units.

6 The range complex includes ranges, training  
7 areas and airspace that extend west to 250 nautical miles  
8 beyond the coasts of Washington, Oregon and Northern  
9 California and east to the Washington/Idaho border. The  
10 off-shore component of the Range Complex encompasses 122,400  
11 square nautical miles of air, surface and subsurface ocean  
12 training areas. The in-shore component includes about 875  
13 acres of land on Whidbey Island and Indian Island, more than  
14 12,000 square nautical miles of special reserve space and  
15 surface and subsurface training area within the Puget Sound.

16 Military activities currently conducted in the  
17 Northwest Training Range Complex is going to be divided into  
18 the primary mission areas listed here. To accomplish -- to  
19 accomplish its mission in the Pacific Northwest, it is  
20 critical for the Navy to maintain and operate the necessary  
21 facilities to provide these critical training areas to U.S.  
22 Navy commands so the force can train realistically.

23 Realistic training ensures U.S. Navy personnel  
24 maintain the highest level of readiness and capability and  
25 is the single greatest asset the military has in preparing

1 and protecting American servicemen and women to defend the  
2 nation. There is no such thing as routine training when it  
3 comes to practicing combat skills. To ensure Navy forces  
4 are fully ready prior to deployments requires specialized  
5 ranges for military personnel to learn from practical,  
6 hands-on experience the technical skills necessary to  
7 effectively plan and conduct operations. Continuing  
8 technological advancements also require more complex and  
9 varying testing and training scenarios to be able to combat  
10 new threats. The ranges, facilities and installations of  
11 the Northwest Training Range Complex are unique and provide  
12 training opportunities essential to the safety and readiness  
13 of military personnel and the success of the military  
14 mission.

15 Environmental stewardship is a priority goal of  
16 the Navy during the mission training activities. The Navy  
17 is committed to protecting the physical and natural  
18 environment and has established a successful track record of  
19 environmental stewardship while completing our mission. To  
20 accomplish our environmental stewardship goals, the Navy  
21 implements protective measures on land and at sea to reduce  
22 potential effects to terrestrial and the marine environment  
23 and ensure public safety and accessibility.

24 I will now turn the presentation over to John  
25 Mosher from the U.S. Pacific Fleet who will tell you about

1 the Navy's Proposed Action for the Northwest Training Range  
2 Complex and give you an overview of the Draft EIS and the  
3 environmental analysis process.

4 MR. MOSHER: Thank you, Commander. My name is  
5 John Mosher. I'm the Project Manager for the Northwest  
6 Training Range Complex EIS. I am here tonight to give you  
7 an overview of the findings in the Draft EIS.

8 The Draft EIS was prepared by the U.S. Navy to  
9 comply with both the National Environmental Policy Act or  
10 NEPA and Executive Order 12114 which requires federal  
11 agencies to consider the environmental effects of their  
12 activities that occur outside of U.S. territorial waters.

13 The Draft EIS represents compliance with these  
14 environmental statutes and is an important part of the  
15 Navy's overall commitment to environmental stewardship as it  
16 tests and trains. The Navy is the lead agency for the EIS.  
17 The National Marine Fisheries Service is a cooperating  
18 agency in addition to their roles as regulator. As a  
19 cooperating agency, they provide early review of the  
20 Proposed Action, alternatives and analysis methods. As a  
21 regulator, they help ensure the EIS and Proposed Action are  
22 in full compliance with environmental laws and regulations.

23 This slide lists the actions that the Navy's  
24 proposing to conduct that are analyzed in the Draft EIS.  
25 Not all of the actions are included in each alternative.

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1 Over the next three slides, I will discuss which actions are  
2 included in which alternative. The Proposed Action is  
3 needed to provide a training environment consisting of  
4 ranges, training areas and range instrumentation with the  
5 capacity to fully support the required training tasks for  
6 operational units and military schools. The Proposed Action  
7 supports the overall mission of the Navy as required by  
8 federal law.

9 Under the No Action Alternative, training and  
10 testing activities would continue at current levels. This  
11 alternative would not accommodate an increase for new  
12 training activities and range enhancements and investments  
13 would not be implemented. The No Action Alternative  
14 provides a baseline for assessing potential environmental  
15 effects for the other alternatives.

16 Alternative 1 is a proposal designed to meet  
17 Navy and Department of Defense near-term training  
18 requirements. This alternative includes an increase in  
19 training activities currently conducted and accommodates  
20 force structure changes associated with the introduction of  
21 new weapons systems, vessels and aircraft. These include  
22 the EA-18G Growler Aircraft, the SSGN Guided Missile  
23 Submarine, the P-8A Multimission Maritime Aircraft and  
24 Unmanned Aerial Systems.

25 Alternative 2 is also designed to meet current

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1 and near-term training requirements. It includes all the  
2 activities identified under Alternative 1 plus an increase  
3 in the level of training activities identified in  
4 Alternative 1.

5 In addition, Alternative 2 provides for  
6 implementation of range enhancements including new air and  
7 sea surface targets; the operation of air target surfaces --  
8 services for locally-based aircraft and vessels; the  
9 development of an additional electronic signal emitter; the  
10 development of an underwater training minefield and use of a  
11 portable undersea tracking range.

12 Alternative 2 is the Navy's preferred  
13 alternative because it fully supports the type and frequency  
14 of activities required to achieve complete Fleet readiness  
15 and allow the Navy to carry out its mission in the Range  
16 Complex.

17 In preparing the Draft EIS, the Navy evaluated  
18 the potential effects of the alternatives to the marine,  
19 terrestrial and human environment. We have taken a  
20 comprehensive approach in assessing the potential effects to  
21 physiological, biological and socioeconomic resources. We  
22 encourage you, if you haven't already, to review the Draft  
23 EIS which presents the findings of the Navy's environmental  
24 analysis for each of these resource areas.

25 The Navy's use of active sonar and explosives

1 puts sound into the marine environment. While preparing the  
2 Draft EIS, Navy scientists analyzed the potential effects of  
3 sound in the water to marine life including marine mammals,  
4 sea turtles, fish -- we lost the mike.

5 (Interruption in proceedings.)

6 While preparing the Draft EIS, Navy scientists  
7 analyzed the potential effects of sound in the water to  
8 marine life including marine mammals, sea turtles, fish,  
9 seabirds and marine invertebrates. The method for  
10 determining potential sound exposures to marine mammals was  
11 jointly developed by the Navy and the National Marine  
12 Fisheries Service and represents the best science currently  
13 available.

14 Marine mammal species have widely varying  
15 sensitivities to sounds based on frequency. This is a  
16 reflection of how different species have evolved to cope  
17 with life in a marine environment, including differences in  
18 size, prey, habitat and the predators to try to avoid.

19 Using the five general steps listed here, the  
20 Navy was able to calculate the number of potential marine  
21 animal exposures to sound from active sonar and explosives.  
22 Section 3.9 of the Draft EIS provides the results of the  
23 computer model as it relates to the potential annual  
24 exposures to marine animals. Marine mammal sensitivity was  
25 determined by biologists from the National Oceanic and

1 Atmospheric Administration and that information was entered  
 2 into the computer model. Marine animals can react  
 3 differently to sounds. For example, a harbor porpoise found  
 4 off the coast is very skittish. Therefore, sound at a lower  
 5 volume will cause them to startle much sooner than other  
 6 cetaceans.

7 While there is a possibility for non-lethal  
 8 impacts and altered behavior from the use of active sonar  
 9 and explosives, no mortality to marine animals is  
 10 anticipated. In addition, the estimation of sound exposures  
 11 does not consider the use of protective measures such as  
 12 sonar safety zones which would reduce the likelihood of  
 13 exposures to sound at the highest levels. No significant  
 14 impacts of sea turtles, fish, seabirds or marine  
 15 invertebrates are anticipated from the use of active sonar.

16 The use of explosives in Navy activities may  
 17 result in injury or mortality to individual fish or seabirds  
 18 in the immediate area of the training. However, these  
 19 activities would not result in significant harm for overall  
 20 bird or fish populations or habitat. Given the relatively  
 21 low number of explosive detonations associated with the  
 22 Proposed Action, no significant impacts to marine  
 23 invertebrates are anticipated. Also, the low occurrence of  
 24 sea turtles in the Range Complex area makes the potential  
 25 for significant impacts to sea turtles unlikely.

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1 The Navy does not expect to harm marine mammal  
 2 populations but it does recognize that there may be  
 3 potential effects to individual marine mammals. To help  
 4 guard against harm to individual whales or other marine  
 5 mammals during training, the Navy has developed protective  
 6 measures including posting a minimum of three well-trained  
 7 lookouts 24 hours a day; conducting aerial sweeps of the  
 8 training areas during air operations; establishing a safety  
 9 zone during training exercises and using mid-frequency  
 10 active sonar. During this training, sonar is powered down  
 11 if a marine mammal enters the 1,000-yard safety zone and  
 12 sonar is powered off if the marine mammal enters within  
 13 200 yards of the sonar dome. The Navy also coordinates with  
 14 the National Marine Fisheries Service and reports marine  
 15 mammals sighted during major exercises.

16 Over the past five years, the Navy has funded  
 17 more than 100 million dollars in marine mammal research. A  
 18 summary of the findings of the Draft EIS are presented here  
 19 using language required by environmental regulations. For  
 20 most of the resources analyzed in the Draft EIS, we found no  
 21 significant impacts.

22 In your review of the Draft EIS, the four areas  
 23 you may want to examine in more detail for species that may  
 24 be affected by the Proposed Action include endangered  
 25 species of fish, sea turtles, marine mammals and bird

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1 species. The Navy is in consultation with the National  
 2 Marine Fisheries Service and the U.S. Fish and Wildlife  
 3 Service to ensure the effects to endangered or threatened  
 4 species listed under the Endangered Species Act are  
 5 minimized.

6 The Navy Range Complex EIS also analyzed the  
 7 potential effects of Navy training on the human environment.  
 8 This resource area -- the resource areas and issues analyzed  
 9 would include cultural resources, traffic, socioeconomics,  
 10 environmental justice and the protection of children and  
 11 public safety. The findings in the EIS show that no  
 12 significant impacts to the human environment are likely from  
 13 the implementation of the Proposed Action.

14 In addition, the Navy has initiated  
 15 consultations with federally recognized Native American  
 16 tribes in the Northwest Training Range Complex area. In  
 17 addition to complying with NEPA, the Navy also complies with  
 18 other applicable federal and environmental laws including  
 19 those listed here and all other applicable laws and  
 20 regulations.

21 The Navy has completed the first three steps of  
 22 the NEPA process and we're now in the phase for providing  
 23 public review of the Draft EIS. To review the progress so  
 24 far, the Navy initiated the EIS in July of -- July 31st of  
 25 2007. The Navy held -- excuse me. The Navy initiated -- on

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1 July 31st, 2007, the Navy held public scoping meetings in  
 2 Washington, Oregon and Northern California. Government  
 3 agencies, organizations and the public were encouraged to  
 4 submit comments at the scoping meetings or to provide  
 5 written comments throughout the public comment period. The  
 6 comments received were considered in the preparation of the  
 7 Draft EIS that we have discussed here tonight.

8 We are now in the public hearing and document  
 9 review step of the NEPA process. This phase is an essential  
 10 part of the NEPA process because it allows the public to  
 11 review this document and comment on the Navy's analysis of  
 12 its environmental effects. We encourage you to provide your  
 13 input by February 11th so it can be considered for  
 14 appropriation in the development of the Final EIS. All  
 15 comments received will be considered.

16 The Navy is committed to keeping the community  
 17 informed throughout the continuing development of the  
 18 Northwest Training Range Complex EIS. These public hearings  
 19 are just one of many opportunities to share information  
 20 about the EIS and more importantly, to encourage your  
 21 feedback and comments.

22 I'll now turn back to Lewis Michaelson to  
 23 describe how to obtain more information and how to comment  
 24 on the Draft EIS.

25 MR. MICHAELSON: Thank you, John. In addition

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1 to holding these public hearings, the Navy has established a  
 2 website to make it easy for you to find and comment on the  
 3 environmental documents. The Draft EIS, for example, is  
 4 posted to that website. It also has additional background  
 5 information and links to the fact sheets that are available  
 6 here tonight.

7           You may also review the Draft EIS and other  
 8 publically available documents related to the Northwest  
 9 Training Range Complex EIS by visiting the designated  
 10 information repositories. The addresses of the repositories  
 11 are provided in the fact sheets you received tonight. Both  
 12 the information repositories and their project website  
 13 contain documents, fact sheets and background information  
 14 for your review.

15           The Navy welcomes your review and input on the  
 16 analysis contained in the Draft EIS and there are several  
 17 ways for you to submit comments. First of all, we're  
 18 accepting oral comments tonight immediately after this  
 19 presentation. Written comments can be submitted by filling  
 20 out a comment form and either dropping it in the box at the  
 21 registration table or mailing it to the address provided  
 22 here which is also listed on the fact sheet. Comments may  
 23 also be submitted electronically via the project website at  
 24 [www.NWTRangeComplexEIS](http://www.NWTRangeComplexEIS). That website address is also in the  
 25 handout you received.

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1           A reminder, again, all comments must be  
 2 received by February 11th, 2009, in order to ensure  
 3 consideration in the Final EIS.

4           We're now ready to begin our comment portion.  
 5 To ensure that we get an accurate record for our court  
 6 reporter so that we have a written record of these  
 7 proceedings, please help me respect the following ground  
 8 rules:

9           First, I'm going to ask you to come up to this  
 10 podium or lectern here and speak clearly and slowly into the  
 11 microphone starting with your name and the organization you  
 12 represent that applies.

13           Second reminder, each person will be allotted  
 14 four minutes to speak. Depending upon the number of  
 15 speakers and the time remaining, we may be able to have  
 16 additional time for you to speak after this.

17           Third, if you've prepared a written statement,  
 18 you may turn it in at the registration table or you may read  
 19 it out loud if you can do so within the four-minute time  
 20 limit.

21           Finally, please honor any requests that I make  
 22 for you to stop speaking when you've reached the four-minute  
 23 time limit. In order to make it easy for you to know when  
 24 that's going to come up so that you can comfortably end your  
 25 comment, I will hold up this card indicating you have 30

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1 seconds remaining and then finally, when you've reached four  
2 minutes, I will hold up this card.

3           We appreciate your cooperation in paying  
4 attention to these rules. I'm going to read ahead the first  
5 speakers so that you'll have an idea of when your time to  
6 come up will be. So my first speaker will be Terry Obteshka  
7 followed by a Jim Carlson, then David Jincks, Terry Thompson  
8 and Marie Gargano.

9           By the way, they're numbered four and then it  
10 skips to six so if we can make sure I'm not missing Number  
11 5, that would be great. I think it may just have been a  
12 mis-numbering.

13           So Terry Obteshka, if you will start us off.  
14 Again, just begin with your name and your organization.  
15 Thank you very much.

16           MR. OBTESHKA: Yes. My name's Terry Obteshka.  
17 I'm a private citizen. I haven't had a chance to read the  
18 EIS so I have more questions than answers, but I do have  
19 concerns. One of my concerns is you go ahead with this  
20 project and if environmental -- adverse environmental  
21 impacts do occur that there's going to be provisions that  
22 you'll cease or desist.

23           Another -- and, of course, Newport, we have --  
24 the off-shore fisheries is very important. Of course, the  
25 whales and the sonar and especially the explosive devices,

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1 impulsive sounds can cause instant and permanent damage to  
2 humans and any other creatures on the earth.

3           We have an off-shore salmon fishery which is,  
4 you know, a threatened species. We have a tuna fishery.  
5 You know, for some reason, you scatter the bait fish of the  
6 tuna and they take off, there could be adverse impacts  
7 economically on the local economy. And, of course, I would  
8 hope that, you know, if these operations do cause negative  
9 impacts in the fisheries, there would be some kind of a  
10 takings provision where the fishing industry would be  
11 compensated for their losses.

12           And in -- Oregon's done a lot of work on  
13 mapping the ocean, discussions on marine reserves and  
14 off-shore energy, buoys, maybe aquaculture in the future.  
15 This is just another impact, another use of the ocean and I  
16 don't know how it's all going to fit in.

17           In closing, I would wish you to reconsider  
18 the -- you know, no change option to what you're doing right  
19 now.

20           MR. MICHAELSON: Thank you very much. The next  
21 speaker is Jim Carlson.

22           MR. CARLSON: Well, first of all, thank you so  
23 much for being here and I would like to extend my thanks to  
24 all of you for your service to our country and I appreciate  
25 that. I guess an example of feeling comfortable that you're

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1 taking care of business is that you had that spare mike  
2 right there. I was impressed.

3 MR. MICHAELSON: State your name, please.

4 MR. CARLSON: Jim Carlson. I'm actually a  
5 resident of Tillamook County which is the next county up  
6 from -- from Lincoln and I'm here tonight wearing two hats.  
7 One being that I am the central coast organizer for a  
8 environmental or conservation group called Our Ocean and I'm  
9 also representing five different sea pacts in Tillamook  
10 County that I think some of you -- I've already explained  
11 what that is, but just for the record, these are groups of  
12 citizens that come together once a month and they discuss  
13 land-use and near-shore issues that are coming to -- you  
14 know, to fruition in our area. And so it's an advisory  
15 group only but we advise the county commissioners and the  
16 County Planning Commission on concerns that we have on --  
17 not only on the land but the near-shore as well.

18 There's tremendous amount of information for me  
19 to digest tonight. Unfortunately, I wasn't really given too  
20 much of a lead time to know that this hearing was taking  
21 place so I will not probably give any specifics as far as  
22 what I feel is appropriate or not appropriate activity as  
23 far as the military is concerned on our coast.

24 But I would want you folks to understand that  
25 we as Oregonians right now are given the task to take

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1 another look at our near-shore and how we're going to use  
2 it, whether that be undersea cables, whether that be marine  
3 reserves, wave energy, aquaculture projects and on and on  
4 and these are all kind of new ideas to our -- to Oregonians  
5 so this is just one more piece of the puzzle that we need to  
6 take a look at.

7 So my recommendation is that the fact that I'm  
8 the only one here from Tillamook County that I'm aware of  
9 that's able to come to this meeting or, in fact, was aware  
10 that it was taking place, that you reconsider your deadline  
11 because that gives us less than a little over ten days to --  
12 first of all, to go through all this information that I'm  
13 sure you guys have lived with for a long time but it's new  
14 to us.

15 And so, respectfully, I would ask that you  
16 consider pushing that deadline out to at least a minimum of  
17 30 days to give us an opportunity as coastal Oregonians to  
18 decipher this information and give you a -- you know, an  
19 educated guess on what we -- how we want to proceed here.  
20 Thank you so much.

21 MR. MICHAELSON: Thank you. The next speaker  
22 is David Jincks.

23 MR. JINCKS: My name's David Jincks. I live at  
24 1260 Southeast Wade Way in Newport, Oregon. I'm here  
25 representing Midwater Trawlers Cooperative. It's a fishing

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1 organization that has vessels that participate in the  
 2 fisheries on the West Coast and Alaska. I'm also going to  
 3 represent Pacific Whiting Cooperative and United Catcher  
 4 Boat Association from Seattle, Washington. They're also  
 5 fishing organizations that fish these areas between Alaska  
 6 and the West Coast.

7           The main fisheries that we participate in on  
 8 the West Coast is the Whiting Fishery. It's a pelagic fish  
 9 and it migrates from California north up the coast past  
 10 Puget Sound into Canada before turning around and heading  
 11 back to California. These fisheries take place May 15th  
 12 sometimes running into November 15th, sometimes into  
 13 December. It's a full summertime fishery and into -- you  
 14 know, some of the early wintertime so.

15           The depths these vessels fish are from probably  
 16 40 fathoms out to 800 fathoms. They're a wide-ranging  
 17 fleet. They'll range from the Oregon-California border to  
 18 the Puget Sound. They -- they range in size. It's  
 19 probably -- this -- this fleet here is probably 68 vessels  
 20 and they range in size from 70-foot to 550-foot.

21           It's an economic engine for the West Coast.  
 22 Um, economic indicators indicating in the last couple years  
 23 165 million dollars return to the coastal communities  
 24 between Oregon and Washington. So it is very important to  
 25 us and that the areas are open for us to fish in. So I've

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1 -- this is pretty much new to me. I just got called an hour  
 2 and a half ago that this was going to be a hearing here so I  
 3 wasn't really prepared to speak on it, but I'm going to do  
 4 the best I can.

5           I'm going to just make a statement that I know  
 6 from talking to several of you in the hallway which the  
 7 information is very good. Thank you. And it's the typical  
 8 EIS that's being done it looks like. And though you've been  
 9 working with National Marine Fisheries Service, the National  
 10 Marine Fisheries Service doesn't always work with us very  
 11 well and so the information doesn't trickle down to the  
 12 fishing groups. And so we're asking for more coordination  
 13 with us, with the local fishing groups. There's several of  
 14 us that represent some of the larger fishing industries and  
 15 also some of the other ones.

16           I mean, I'm just representing a small bunch of  
 17 the fisheries. You have the crab fisheries, salmon  
 18 fisheries, long-line, pot fisheries. I mean, it's a  
 19 tremendous amount of fishing that goes on in these areas out  
 20 here all year round when you get into them. I'm just  
 21 speaking about the whiting fishery for the May through  
 22 December. But through the rest of the time, there's a  
 23 tremendous amount of ground that's being fished out here all  
 24 the time. And so what we're asking for also is the February  
 25 11th deadline on written comment is coming right up on us

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1 which we didn't know about. I didn't know about the EIS. I  
2 haven't looked at it yet so.

3           And, um, I think that under NEPA, I think that  
4 we should be allowed a little more time because it is a very  
5 large impact that is unforeseeable to us what the impact  
6 will be. I mean, I look at some of the information out  
7 there and it says that there could be potential economic  
8 impacts to commercial fishing from use of portable undersea  
9 tracking range which I -- like I say, I haven't read the EIS  
10 so I'm not aware of what the -- what the portable undersea  
11 tracking range is going to be, how much ground it's going to  
12 take up, what the notice would be to mariners to move out of  
13 that area and how long that would -- how long that would be.

14           30 seconds remaining. Well, thank you.  
15 Anyway, so that's -- briefly, that's my statement and I'd  
16 hope that over time that you would instead of engaging with  
17 National Marine Fisheries Service, you might engage with the  
18 fishermen that actually use the ocean. Thank you.

19           MR. MICHAELSON: Thank you. The next speaker  
20 is Terry Thompson.

21           MR. THOMPSON: My name is Terry Thompson. I  
22 represent the Lincoln County Commission and also Undersea  
23 Cables. And I'll start off by telling you why this is a  
24 little passionate for me. I've been about 4,200 days at sea  
25 in my life. In that time, I've known eight vessels that

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1 have vanished because of submarine activity and five men  
2 have died. Now, I consider that a pretty serious issue.  
3 Now, to know it's the U.S. Navy or another vessel is -- no  
4 vessels ever come to the surface for us to be able to  
5 identify, but when you lose friends at sea because of  
6 activities by someone underneath the water that's obviously  
7 running a vessel that's big enough it can tow a 75-foot  
8 sideways at eight knots, it's obvious there's somebody that  
9 needs to work on communications.

10           Now, I cannot say who it was, but one of the  
11 things that we have tried to pride ourselves and the West  
12 Coast Fleet on this coast is the development of an open  
13 communication system. And this meeting today represents an  
14 opportunity that we've never had before and that's to  
15 actually communicate with you about some of the facilities  
16 and personnel and equipment that we use in our fishing  
17 operations that we are -- have off shore. That  
18 communications, I think, can further the lack of -- can  
19 stimulate a situation so we won't have conflicts in the  
20 future and I very much applaud you for that.

21           We represent about 100,000 -- or excuse me --  
22 100 million dollars' worth of fisheries products just in  
23 Lincoln County. It's a major business for us and anything  
24 we can do to help communicate between you and us can only  
25 help our communities.

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1 One of the things that by looking at the EIS  
 2 that bothered me the most was the potential for a minefield  
 3 to be built out here and a permanent closure. And then when  
 4 I looked back and say there's no socioeconomic impact to the  
 5 fishing industry, well maybe not as it is today under what's  
 6 there, but if you put a minefield in there and tell us it's  
 7 permanent and we can't go there, it definitely has an impact  
 8 on our community. So I think you need to rethink what that  
 9 social impact might be.

10 David Jincks just talked about the whiting  
 11 fishery. It's one that would very likely be in conflict  
 12 with you because they haul such big nets and they move at  
 13 high speed in the ocean. Whether you're using an ROV or a  
 14 potential minefield, I'm sure that within a short time,  
 15 we'll have one of your devices in our nets.

16 Another area that bothers me is the amount of  
 17 shells and marine debris the Navy leaves behind. When I  
 18 fished off San Francisco trawling, I found parts of old  
 19 airplanes that had been left by the Navy when they came in  
 20 from World War II. Stainless steel landing gears, pieces  
 21 like that, and if you're going to shoot debris into the  
 22 ocean in shallower water inside of 700 fathoms, it won't be  
 23 long before we're going to have that debris.

24 Our fishing industry has done a lot to try to  
 25 clean the bottom of the ocean. We actually work now with

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1 NOAA to remove old fishing nets. We do all kinds of  
 2 operations to bring stuff ashore instead of dumping it back  
 3 overboard and for the Navy to leave marine debris on the  
 4 bottom, it's not good for our operation and I'm not sure  
 5 what the effects would be with some of the sea life but some  
 6 of it would probably be impacted.

7 One of the problems that also bothered me about  
 8 this meeting was the lack of communications in this meeting  
 9 being held. I didn't know about it until yesterday and I  
 10 immediately went to the Governor's Office who didn't know  
 11 about it. Apparently, Department of State Lands had some  
 12 knowledge of it. I contacted the Undersea Cable Committee  
 13 which is the main communication system for the Trawl Fleet  
 14 today and they had been involved early on but they weren't  
 15 aware that this meeting was here and the general public in  
 16 our area didn't know that. So I've got -- to cut this  
 17 short, I'll make one final comment. Because of that lack of  
 18 communications that I think you guys meant well in your  
 19 effort to communicate with the public, I think you need to  
 20 extend this period so that we can have time for the public  
 21 comment and a lot more local people to be engaged.

22 MR. MICHAELSON: All right. Thank you,  
 23 Mr. Thompson. The next speaker is -- I hope I pronounce  
 24 this correctly -- Marie Gargano?

25 MS. GARGANO: That's correct. Good evening.

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1 My name is Marie Gargano. I live in Depoe Bay and I live  
 2 right on the water so your 12-mile buffer between your zones  
 3 and my house is very important to me. I will preface what I  
 4 say by saying and agreeing with previous speakers; I found  
 5 out about this hearing on Monday and that's through an  
 6 organization that I belong to called Oregon Coast Watchers.

7 I'm not here representing them, but I'm here to  
 8 gather information for them and also for another  
 9 organization called Oregon Coast Watch -- or Oregon Shores.  
 10 Pardon me. We did not have a lot of notice for this hearing  
 11 and I don't know what your mechanism is for notifying the  
 12 public, but I have been in this room for topics that are far  
 13 less consequential where there's been standing room only.  
 14 So I would say looking out and seeing all these empty seats,  
 15 to me, that's an indicator that there really hasn't been  
 16 adequate notification to the public.

17 I'm going to read some excerpts from the  
 18 January/February 2009 newsletter for the National Resources  
 19 Defense Council. I'm a member of that organization and I'm  
 20 sure all you gentlemen are very familiar with them because  
 21 they have had numerous suits against the Navy.

22 Ruling 6 to 3 in a case brought by the NRDC,  
 23 the Supreme Court has recently struck down two important  
 24 safeguards that protect whales from dangerous mid-frequency  
 25 sonar during naval exercises off the coast of California.

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1 The decision -- quote, the decision places marine mammals at  
 2 greater risk of serious and needless harm said Joel  
 3 Reynolds, Director of the NRDC Marine Mammal Protection  
 4 Program. The ruling was very narrow, said Reynolds. It  
 5 left in place four vital safeguards that we have won in the  
 6 lower courts.

7 As a result, the Navy's sonar ships will still  
 8 be required to avoid key wild -- key whale habitat in a  
 9 12-mile coastal zone and also to use marine mammal lookouts,  
 10 to power down its sonar when marine mammals are within a  
 11 half a mile.

12 I have not seen the EIS because I'm seeing the  
 13 website right now for the first time. I'll quote again from  
 14 this newsletter. The Navy itself has estimated that the  
 15 California sonar drills will disturb or injure 170,000  
 16 marine mammals and cause permanent injury to more than 450  
 17 whales. And I know from other organizations that I belong  
 18 to there is certainly suspect that the Navy has been the  
 19 cause of marine mammal deaths including whales.

20 So one of the questions that I have is this was  
 21 a suit for the coast of California. What are the statistics  
 22 relevant to the Oregon coast and will the Navy be following  
 23 these same vital four safeguards for any activities off of  
 24 the Oregon coast?

25 Despite this legal setback, the trend is

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1 definitely toward a more whale-friendly Navy, said Reynolds.  
 2 We've made enormous progress over the past decade in getting  
 3 the military to study the impacts of sonar and put  
 4 precautions in place. So you are going in the right  
 5 direction, but because it's whales, we don't know when there  
 6 are going to be fatalities. We won't see the carcasses on  
 7 land. They will sink and they'll be gone. So I would  
 8 really question what's going to happen with our whale  
 9 population off the coast of Oregon. Thank you very much.

10 MR. MICHAELSON: Thank you. The next speaker  
 11 is Dr. Bruce Mate.

12 DR. MATE: Good evening. And I want to add my  
 13 thanks to your coming here and including Newport in one of  
 14 your areas to hold hearings and public comment. I'm very  
 15 grateful for that and I'm also grateful to you gentlemen for  
 16 upholding the finer traditions of the services in protecting  
 17 our well-being. I think we're all appreciative of the job  
 18 you're doing on behalf of the United States.

19 Because these are important matters, I do think  
 20 that what we've heard tonight and what I've experienced in  
 21 this last week, I would very much hope that you'd extend the  
 22 comment period by another 30 days. The material is -- that  
 23 you've put together is in many areas wonderful but at 1,068  
 24 pages, a bit daunting for most of us to get through.

25 In my particular area, I'm representing myself

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1 tonight as a citizen, but I have considerable marine mammal  
 2 experience. I do not represent Oregon State University, but  
 3 I do direct the Marine Mammal Institute here and I've been  
 4 in Oregon doing marine mammal work since 1968. I can tell  
 5 you that there are some things in the document that will  
 6 actually require some reassessment. Some of that is local  
 7 knowledge. Some of it's very current.

8 And I had the opportunity to speak during the  
 9 time period before this group came in and I appreciated the  
 10 candor of several of the folks with me and the expression  
 11 also of the difficulty for those of us who view this  
 12 professionally in assessing impact because risk is a  
 13 combination of a species, the time and the place. And the  
 14 time and the place is a very difficult thing for you to be  
 15 specific about for a variety of reasons and we appreciate  
 16 what some of those are.

17 But just simple things like knowing that gray  
 18 whales are here during the summertime and near shore, that  
 19 we have blue whales and humpbacks off shore. Because we  
 20 have a narrow continental shelf within a very steep slope,  
 21 we have very close access to deep water. So a lot of the  
 22 species that are of public concern and are a part of the  
 23 debate going on about the impacts of sonar and other  
 24 activities are going to be a part of our concerns and these  
 25 include beaked whales and sperm whales, other deep divers

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1 where sound channeling can occur in deep waters.

2 I think there are a number of things that we  
3 have to think a little longer about as a community and it'll  
4 take a little bit of time for this to come through. When we  
5 start talking about permanent threshold shifts that are  
6 based on 50 percent tympanic membrane ruptures and not  
7 consider that underwater detonations may also be a source of  
8 that but it's just related to sonar. There are things like  
9 that that'll take time for people to evaluate for themselves  
10 for a little while.

11 Or why lung injury may only be associated with  
12 harbor seals and yet they're the very nearshore species.  
13 There are aspects related to fish where we aren't seeing a  
14 very thorough impact assessment with regard to active sonar  
15 activities in this document and I do know that some of the  
16 consultants you've had are experts in some of these areas so  
17 I would like to see some of that more fully explored in the  
18 Final EIS.

19 I think that there could be a variety of  
20 aspects of getting ready to start these activities where  
21 you're trying to assess whether there are animals in the  
22 region where you have ten minutes of helicopter time  
23 devoted. Quite clearly that's not going to be adequate for  
24 deep diving animals that may spend 45 minutes on a dive like  
25 sperm whales or over half an hour like beaked whales.

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1 So some of those things may need a little more  
2 development in terms of your pre-activity, um, assessments  
3 and also probably in your mitigation processes. I think at  
4 a minimum, the scientific community would like to know that  
5 after the fact, your operations will know when and where  
6 those occurred so that anything that may come up, we could  
7 start to think about some correlations. These are things  
8 that can clear your -- all our collective consciousnesses  
9 (sic) as well as knowing the correlation is not cause and  
10 effect.

11 We've had strandings of beaked whales along the  
12 Oregon coast for years. As recently as last week, we had  
13 sightings of L pod, the southern orcas, right here off  
14 Lincoln County in the last two weeks and being a listed  
15 species, that's a concern.

16 Finally, in summarizing, I'd just like to say  
17 that the mitigation process kind of goes both ways about  
18 getting ready to do things and then after the fact looking  
19 at possible effects. So we need to be able to do that.  
20 Thank you very much.

21 MR. MICHAELSON: Thank you. I think we will  
22 have time for second helpings if anyone wants to add  
23 anything. I just need to make sure everyone gets a first  
24 chance to come up here.

25 Have there been any more cards turned in?

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1 Okay. Is there anybody who hasn't filled out a card who  
2 would like to speak? Yes. I'm just going to ask you to  
3 fill out a card afterwards. Why don't you come up here and  
4 all I need is your name and you'll have your opportunity.

5 MS. MILLS: My name is Charlotte Mills and I  
6 live in Tidewater, Oregon, and I'm a member of Oregon Shores  
7 Conservation Coalition, one of the oldest citizens groups  
8 that have had attention to the marine issues and we were  
9 very prominent in getting the beach bill.

10 I'm also a member of Our Ocean like the  
11 gentleman was here from Tillamook and Our Ocean has had some  
12 action teams. We've been working for two years to get the  
13 marine reserve networks here and our group has recommended  
14 nine sites along the Oregon coast. We've got 362 coastal  
15 miles.

16 (Interruption in proceedings.)

17 MS. MILLS: And along those 362 coastal miles,  
18 we have proposed nine of them. Our pod, our group was  
19 proposing the marine reserve between Haceta Head and Cape  
20 Perpetua. We called our -- we were the Yachats Pod on that.  
21 So I only got -- found out about this meeting at  
22 4:00 yesterday afternoon and a friend who was on the  
23 Internet got some of the information to us.

24 And so Oregon Shores Conservation Coalition was  
25 not on your list of organizations that got notified, nor

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1 were -- I don't believe Our Ocean got notified either and I  
2 can tell you that if either one of those organizations had  
3 been notified, this would have been full attendance tonight.

4 So I want to say most importantly that your  
5 NEPA -- your National Environmental Policy Act, your notice  
6 and comment efforts have been inadequate. They did not  
7 reach not hundreds but thousands of people along the Oregon  
8 coast. Many of them are property owners along the coast.  
9 Some of them are fishing communities. Some of them are  
10 marine commercial activities as well as private property  
11 owners. If you had notified the Oregonian or the Associated  
12 Press, one of those organizations, we'd have had more people  
13 here tonight.

14 So my recommendations are -- I'm going to go  
15 beyond extending the comment period. I believe you should  
16 have another public meeting. I think you need to have it --  
17 reschedule this and notify the right media, notify the right  
18 organizations and have another one. I don't -- and then  
19 extend the comment period.

20 Those about cover it for me except that, you  
21 know, we spent a long time on trying to create these marine  
22 reserves and I can tell you the issues that I found in your  
23 literature yesterday are kind of like what Terry Thompson  
24 was talking about; that if we're talking about your -- you  
25 have air, land and sea activities, all three of those, and

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1 our marine reserves are only going out to the three-mile  
 2 limit and we're concerned about the kelp forest and the big  
 3 fat female fish who seek shelter in those kelp gardens to  
 4 feed and to spawn, and if there are going to be explosives,  
 5 if there are going to be minefields, if there are going to  
 6 be this whatever undersea tracking range for anti-submarine  
 7 training, all of those off-shore activities, I don't think  
 8 we need to even guess. I know they will have an impact on  
 9 these marine reserves we're proposing. Thank you very much.

10 MR. MICHAELSON: Thank you. Is there anyone  
 11 else?

12 MS. BURKE: Yeah.

13 MR. MICHAELSON: Just come on up here. If you  
 14 get her to fill out a card, that would be great.

15 MS. BURKE: Hi. My name is Patty Burke and I'm  
 16 from Waldport, Oregon, and I'm speaking as a citizen as  
 17 Bruce is, but I'm also kind of involved in fisheries  
 18 management here. I do work for NOAA and I also only just  
 19 heard about the meeting yesterday. So I do think it would  
 20 be beneficial to extend the comment period.

21 For example, the program that I run is  
 22 responsible for serving fisheries up and down the coast.  
 23 We've got transects in all the areas that you're talking  
 24 about and next week we're meeting in Santa Cruz to talk with  
 25 the National Marine Sanctuaries Program about access for

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1 science and for research in those areas. And so I know that  
 2 we haven't had those dialogues with you and I think that  
 3 it's important that we try to at least acknowledge the good  
 4 work that you've done by giving us some time to do some of  
 5 the interactions with you locally on the issues. So thank  
 6 you very much.

7 MR. MICHAELSON: Thank you. Anyone else who  
 8 would like to speak who hasn't had a chance to yet? Sure.  
 9 Go ahead.

10 MR. HORNING: Thank you for the opportunity.  
 11 My name is Marcus Horning. I speak as a resident of the  
 12 City of Newport and will actually be providing most of my  
 13 comments probably by on-line submission but would like to  
 14 add my name to the list of many this evening who have  
 15 commented on the fact that it is very laudable that you're  
 16 reaching out and having this forum but sadly many of us were  
 17 not really informed of this until recently.

18 So I also only found out about this yesterday  
 19 and would like to take the time to really read the EIS in  
 20 detail to be able to understand it as much as possible and  
 21 then provide comment based on my opportunity to read that in  
 22 detail. So I would also like to ask you to extend the  
 23 public comment period, if possible, and the suggestion of  
 24 30 days that several have come up with sounds like a very  
 25 reasonable one. Thank you.

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1 MR. MICHAELSON: Thank you. Is there anyone  
2 else? Is there any -- yes? If not, if no one is new, if  
3 anyone who already spoke for four minutes would like another  
4 chance at that, please feel free to come up and add to your  
5 time an additional four minutes. All you need to do is  
6 state your name for me. Thank you.

7 MR. THOMPSON: Terry Thompson again. Lincoln  
8 County Commissioner. There's a couple of areas in specific  
9 in the EIS I'd like to cover. One is there was -- when I  
10 examined the document, it looked like to me, like the Navy  
11 document did not have a very good understanding of the  
12 fishing industry. I'll give you an example.

13 It discussed in one area where salmon are  
14 trawlers and trollers fish for flat fish. Now, that's a  
15 basic error that shouldn't be in a document like this.  
16 Trollers fish with wires and they fish for salmon and  
17 Trawlers fish for bottom fish.

18 There were several things in there related to  
19 the commercial fishery and I suggest that you go back and  
20 get with some commercial fishermen and work this document a  
21 little better and the contact point may be through the  
22 Undersea Cable Committee. I mentioned that that exists on  
23 this coast. It's a group of trawlers that communicate up  
24 and down and that have probably been involved in every  
25 fishery and we have a contact point with the manager who

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1 really understands fisheries and could work with you to  
2 improve some of that information related to the fishing  
3 industry. It can only help.

4 Another area that bothered me wasn't in there  
5 was that today under our modern management system, we've  
6 made agreements in trawling which is the one you're going to  
7 most have a chance to have conflict with that I'll restate  
8 the comment. It's now closed outside of 700 fathoms. So  
9 that's a very important factor when you're working. The  
10 only boats that'll probably be outside of 700 fathoms are a  
11 very occasional whiting boat and a tuna fleet. So there's  
12 not a lot of activity out there beyond 700 fathoms by our  
13 fishing fleet. And that should do it, but good luck. I  
14 hope you'll try to rework that section related to the  
15 fishing industry.

16 MR. MICHAELSON: Thank you. Anyone else like  
17 to come back up?

18 MS. GARGANO: Marie Gargano, Depoe Bay. I  
19 heard the one lady say that she encourages you to have a  
20 rehearing, a second hearing. I think you have heard from a  
21 good number of speakers that the notification here along the  
22 coast was grossly inadequate and I know that's probably not  
23 your fault, but I think we need to have another hearing so  
24 just extending this by 30 days, I think, is inadequate, um,  
25 and to encourage that to happen, I'm going to be calling the

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1 Governor's Office tomorrow and also my two senators and ask  
 2 them to intercede with the Secretary of the Navy to try to  
 3 make that happen. So we may see your smiling faces back  
 4 here again, but I think that that's really what needs to  
 5 happen because you come back again and this room is going to  
 6 be filled to capacity. I can promise you. Thank you.

7 MR. MICHAELSON: Thank you.

8 MR. JINCKS: Yes. My name's David Jincks. I  
 9 spoke earlier. I'd like to make one more comment and that  
 10 has to do with the fishing fleet again and if this is --  
 11 does become a foregone fact and this is a reality for us,  
 12 we'd like to have in the records that hopefully you'll work  
 13 with us and our navigation programs as far as updating us on  
 14 these zones and areas.

15 There's several different navigation programs  
 16 that are used on these vessels. Some of us use Globe, Olex,  
 17 but local fleets around here use many different other types,  
 18 too. But most of the chart companies are -- and these  
 19 navigation companies are willing to update our nav.  
 20 programs for us with closures and these areas. We use them  
 21 quite a bit up in Alaska for closures and other areas, but  
 22 hopefully you will pay attention and look into this because  
 23 it is -- it would be very helpful to us. Thank you.

24 MR. MICHAELSON: Anyone else like a second  
 25 chance? Yes, sir.

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1 DR. MATE: Bruce Mate again and I just want to  
 2 add a few comments. One is that there are several other  
 3 noise makers in the ocean who are held to a different  
 4 standard of accountability and we understand why that would  
 5 be. But, for instance, the National Marine Fisheries  
 6 Service establishes 160 decibel level for the exposure of  
 7 marine mammals as an indication of where 50 percent of the  
 8 population is going to be behaviorally disturbed. And that  
 9 means cutting off feeding behaviors or doing something  
 10 different than they might normally be doing.

11 At 235 decibels and knowing that this is a  
 12 logarithmic scale, the kind of noise level that the Navy is  
 13 proposing to make in this area is substantially larger than  
 14 that which would be regulated in other industries. And I  
 15 guess it would be really nice to get some scaling for those  
 16 who are less physics oriented and the circles you have of  
 17 influence for temporary threshold shifts and permanent  
 18 threshold shifts, if you could provide for the more general  
 19 community some sense of what scale that is and the frequency  
 20 ranges you operate in so that we would be better informed as  
 21 a public to reflect back to you what we think of that, that  
 22 would be very helpful I think.

23 And when you look at something like the summary  
 24 table on effects on 3.9-13, most of that table is populated  
 25 with assessments that read either perhaps no effect in your

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1 judgment or as several of them are, MA or not enough data  
2 basically, or MA, may affect, I'd say that those kinds of  
3 sort of broad-sweeping three categorical choices don't leave  
4 a lot of leeway for people to make good interpretations for  
5 themselves about what you might really expect to happen.  
6 I'd like to see it quantified a little more.

7 I know you've done these things in terms of  
8 modeling in terms of the populations, the seasonality, their  
9 sensitivity and so forth and I commend you for the depth of  
10 detail that's in the Draft EIS, but I would like to see you  
11 go a bit further in this regard for people who are less  
12 familiar with that kind of information.

13 Thank you very, very much for coming. I do  
14 hope we see you again and whether it's in this kind of a  
15 forum or in an opportunity to have more dialogue with a  
16 community that feels very not only attached to this area  
17 aesthetically, but a livelihood and a connection with the  
18 wildlife that's here. Thank you.

19 MR. MILLER: Thanks again.

20 MR. MICHAELSON: Thank you. Anyone else who  
21 would like to speak for the first time or for the second  
22 time? If not, we will adjourn for now and if you'd like,  
23 you can go back to the poster stations. We are here till  
24 8:30. Thank you very much for coming tonight.

25 (Public hearing adjourned at 8:09 p.m.)

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AUTHENTICATION

1  
2  
3 This is to certify that the foregoing  
4 transcription of the proceedings held at the Northwest  
5 Training Range Complex, Draft EIS/OEIS Hearing held on  
6 Friday, January 30, 2009, at 7:00 p.m. is a true and correct  
7 transcription of said proceedings and the original thereof  
8 delivered to Katz & Associates mailed by Priority Mail on  
9 Thursday, February 12, 2009.

10  
11  
12  
13 \_\_\_\_\_  
14 Anne M. Duffey,  
15 Certified Shorthand Reporter for Oregon  
16 CSR No. 07-0405  
17 Notary Public for Oregon, Comm. No. 409050  
18 My Commission Expires August 13, 2010  
19  
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1 NORTHWEST TRAINING RANGE COMPLEX  
2 DRAFT ENVIRONMENTAL IMPACT STATEMENT/  
3 OVERSEAS ENVIRONMENTAL IMPACT STATEMENT

4  
5  
6 OPEN HOUSE

7  
8  
9  
10  
11  
12 TRANSCRIPT OF ORAL STATEMENT

13 VOLUME I -- PAGES 1 - 4

14  
15 DATE: Friday, January 30, 2009

16 TIME: 5:00 - 7:00 p.m.

17 LOCATION: Hatfield Marine Science Center  
18 Visitor Center  
19 2030 SE Marine Science Drive  
20 Newport, Oregon 97365

21  
22  
23  
24 REPORTED BY:  
25 ANNE M. DUFFEY  
OREGON CSR NO. 07-0405

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1 NEWPORT, OREGON, FRIDAY, JANUARY 30, 2009, 5:00 P.M.

2  
3 (Transcription of oral statement given at Open  
4 House as follows:)

5 COURT REPORTER: First, I need you to state  
6 your name and address.

7 MR. CARLSON: James H. Carlson, P.O. Box 47,  
8 Netarts, Oregon, 97143.

9 COURT REPORTER: Okay. Go ahead.

10 MR. CARLSON: I'm a resident of Tillamook  
11 County which is the county north of Lincoln. We're now in  
12 Lincoln County. I'm a little bit concerned about the  
13 outreach as far as having all coastal Oregon residents  
14 having, at least if nothing else, a basic understanding of  
15 what the Navy is proposing to make any significant or not  
16 significant changes.

17 So I'm real involved with land-use issues in  
18 Tillamook County as a chair of the Netarts Planning Advisory  
19 Council for Tillamook County. So we're advisory only, but  
20 we operate under the guise of county commissioners in the  
21 Tillamook County Planning Commission and so it's -- it would  
22 be nice if Tillamook County residents would have had an  
23 opportunity to give their input on these issues.

24 One of the -- one of your areas that is  
25 designated as a training area and that is W-570 is adjacent

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1 to Tillamook County. And so I'm here tonight to express my  
 2 concern that the timeline for deciphering all this  
 3 information and giving feedback back to the Navy is a pretty  
 4 short timeframe. And if I'm correct, the due date on any  
 5 comments is February 20th or sooner -- oh, February 11th.  
 6 So my -- that's a big concern and that's a pretty good  
 7 stretch of marine real estate that Tillamook County is next  
 8 to. And so I really do not have anything else to say. This  
 9 is all new to me.

10  
 11 (Oral statement of Mr. Carlson concluded. No  
 12 further oral statements given.)  
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 14  
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AUTHENTICATION

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 3 This is to certify that the foregoing  
 4 transcription of the oral statements taken during the Open  
 5 House held at the Northwest Training Range Complex, Draft  
 6 EIS/OEIS Hearing held on Friday, January 30, 2009, at 5:00  
 7 p.m. is a true and correct transcription of said proceedings  
 8 and the original thereof delivered to Katz & Associates  
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0001  
1 U.S. NAVY NORTHWEST TRAINING RANGE COMPLEX  
2 DRAFT ENVIRONMENTAL IMPACT STATEMENT/OVERSEAS  
3 ENVIRONMENTAL IMPACT STATEMENT  
4 EUREKA, CALIFORNIA  
5  
6  
7  
8

9 REPORTER'S TRANSCRIPT  
10 OF PROCEEDINGS  
11  
12 MONDAY, FEBRUARY 2, 2009  
13  
14  
15 7:00 P.M.  
16

17 Location: Eureka Women's Club  
18 1531 J Street  
19 Eureka, CA 95501  
20 5:00 P.M.

21 COURT REPORTER: MARLENE A. RAGAIN, CSR #11343  
22  
23  
24  
25

0002  
1 A P P E A R A N C E S

2  
3  
4 LEWIS MICHAELSON  
5 Moderator  
6

7 COMMANDER MATTHEW MILLER  
8 Executive Officer of Naval Air Station  
9 Whidbey Island  
10

11 JOHN MOSHER  
12 Project Manager from the Navy's Pacific  
13 Fleet  
14

15 KIMBERLY KLER  
16 Project Coordinator from Naval  
17 Facilities Engineering Command, Northwest  
18

19 PUBLIC SPEAKERS:  
20 Patrick Higgins  
21 Mary Bawden  
22 Gordon Anderson  
23  
24  
25

0003  
1 EUREKA, CALIFORNIA; MONDAY, FEBRUARY 2, 2009

2 7:00 P.M.  
3 . . .  
4

5 MODERATOR MICHAELSON: Good evening and thank  
6 you for coming tonight.

7 My name is Lewis Michaelson, and I will be  
8 the -- actually if I could ask the my poster station  
9 people to politely disengage, I would appreciate it.  
10 Thank you.

11 My name is Lewis Michaelson, and I will be  
12 the Moderator for tonight's hearing on the Navy's  
13 Northwest Training Range Complex Draft Environmental  
14 Impact Statement/Overseas Environmental Impact  
15 Statement, or Draft EIS.

16 If I could ask everyone to please turn off or  
17 turn down your cell phones at this point, I would  
18 appreciate it.

19 Here to receive your comments are Matthew  
20 Miller, Executive Officer of Naval Air Station Whidbey  
21 Island; Mr. John Mosher, the project manager from the  
22 Navy's Pacific Fleet; Mrs. Kimberly Kler, standing to  
23 my right, your left -- she's raising her hand -- is  
24 the project coordinator from Naval Facilities  
25 Engineering Command, Northwest, is here as the primary

0004  
1 point of contact for sharing your written comments  
2 about the project.

3 Let's look at the agenda for tonight.  
4 Hopefully you all had the opportunity to talk  
5 to the many knowledgeable experts and program  
6 officials who were staffing exhibits during the open  
7 house. The primary purpose for this portion of the  
8 hearing is for the panel members to listen to your  
9 comments firsthand. They will not be answering  
10 questions during this phase of the proceedings.  
11 Comments and questions will be addressed in the Final  
12 EIS.

13 After I finish this introduction, Commander  
14 Miller will give a brief overview of the Navy's  
15 activities in the Northwest Range Complex.

16 Next, Mr. John Moser will brief you on the  
17 environmental impact analysis process and summarize  
18 the results reported in the Draft EIS.

19 The last item on the agenda, however, is the  
20 most important. The public comment session is your  
21 opportunity to provide information and make statements  
22 for the record.

23 Your input ensures that the decision makers  
24 can benefit from your knowledge of the local area and  
25 any environmental effects you think may result from

0005  
1 the Proposed Action or alternatives.  
2 Keep the mind the EIS process is intended to  
3 ensure that decision makers will be fully informed  
4 about the potential environmental impacts associated  
5 with the various alternatives before they decide on a  
6 course of action.

7 Please remember the comments on issues  
8 unrelated to this EIS are beyond the scope of this  
9 hearing.

10 To request an opportunity to make a verbal  
11 comment during tonight's hearing, please fill out a  
12 verbal comment card, such as the one that Allison is  
13 holding up over there in front.

14 Every speaker, including public officials,  
15 organizational spokespersons and private individuals  
16 will have four minutes each to provide his or her  
17 comment.

18 If you don't feel comfortable standing up  
19 here tonight to make a statement, you have until  
20 February 11, 2009, to submit a written statement for  
21 consideration in the Final EIS, or you can wait till  
22 tonight's presentation of public comment session is  
23 over and provide your comments privately to the court  
24 reporter, one-on-one.

25 Keep in mind that written comments are given  
0006

1 the same consideration as verbal comments offered here  
2 tonight.

3 Now it is my pleasure to introduce Commander  
4 Miller.

5 COMMANDER MILLER: Thank you, Lewis.  
6 Welcome to the public hearings for the  
7 Northwest Training Range Complex Draft Environmental  
8 Impact Statement. My name is Commander Matt Miller,  
9 and I am the Executive Officer of Naval Air Station  
10 Whidbey Island.

11 I want to thank you on behalf of the United  
12 States Navy for attending this evening. This is one  
13 of the five public hearings the Navy is holding in  
14 Washington, Oregon and Northern California for the  
15 Northwest Training Range Complex Draft EIS.

16 As Lewis mentioned, we hope that you've had a  
17 chance to visit the poster stations this evening and  
18 meet with Navy project team members.

19 Before we proceed, a little bit of my  
20 personal and professional background. I've been  
21 wearing the Navy uniform for 26 years. I've been on  
22 active duty for 21 years. I'm a career carrier  
23 aviator. I flew the A-6 Intruder and the EA6B  
24 Prowler.

25 I'm originally from Silver Springs, Maryland;  
0007

1 went to the University of Maryland.

2 I've been the Executive Officer for about a  
3 year. Before that, I was the operations officer. And  
4 before that, I was assigned to the USS Abraham Lincoln  
5 Aircraft Carrier stationed in Everett, Washington, and  
6 a year before that, another West Coast tour as an  
7 Electronic Attack Weapons Instructor. So I've been on  
8 the West Coast for almost ten years and transplanted  
9 from the East Coast, and I don't plan to back. I just  
10 like the Northwest. So that's me.

11 As Lewis stated before, you will have the

12 opportunity to make oral comments regarding the  
13 content of the environmental analysis. Written  
14 comments will be accepted tonight and throughout the  
15 public comment period, which closes on February 11,  
16 2009.

17 The Northwest Training Range Complex is a  
18 military training area that has been in use by the  
19 Navy since World War II. It is comprised of two  
20 primary components: The offshore component -- the  
21 offshore area and the inshore area.

22 The mission of the Northwest Training Range  
23 Complex is to serve as the principal backyard training  
24 range for those units homeported in the Pacific  
25 Northwest area, including surface ship, submarine,

0008

1 aviation and Explosive Ordnance Disposal units located  
2 at Naval Air Station Whidbey Island, Naval Station  
3 Everett, Puget Sound Naval Shipyard, Naval Base  
4 Kitsap-Bremerton and Naval Base Kitsap-Bangor.

5 The Range Complex also supports military  
6 units from outside the range complex area, such as  
7 Naval Special Warfare units.

8 The Range Complex includes ranges, training  
9 areas and air space that extend west to 250 nautical  
10 miles beyond the coast of Washington, Oregon and  
11 Northern California and east to the Washington/Idaho  
12 border.

13 The offshore component of the Range Complex  
14 encompassed 122,400 square nautical miles of air,  
15 surface and subsurface ocean training areas. The  
16 inshore component includes about 875 acres of land on  
17 Whidbey Island and Indian Island, more than 12,000  
18 square nautical miles of special use airspace, and  
19 surface and subsurface training areas within the Puget  
20 Sound.

21 Military activities currently conducted in  
22 the Northwest Training Range Complex can be divided  
23 into the primary mission areas listed here.

24 To accomplish its mission in the Pacific  
25 Northwest, it is critical for the Navy to maintain and  
0009

1 operate the necessary facilities and to provide these  
2 critical training areas to U.S. Navy commands so that  
3 forces can train realistically.

4 Realistic training ensures U.S. Navy  
5 personnel maintain the highest level of readiness and  
6 capability and is the single greatest asset the  
7 military has in preparing and protecting American  
8 service men and women to defend the nation. There is  
9 no such thing as routine training when it comes to  
10 practicing combat skills.

11 To ensure Navy forces are fully ready prior  
12 to deployments requires specialized ranges where  
13 military personnel can learn, through practical  
14 hands-on experience, the technical skills necessary to  
15 effectively plan and conduct operations. Continuing  
16 technological advancements also require more complex

17 and varied testing and training scenarios to be able  
18 to combat new threats.

19 The ranges, facilities and installations of  
20 the Northwest Training Range Complex are unique and  
21 provide training opportunities essential for the  
22 safety and readiness of military personnel and the  
23 success of the military mission.

24 Environmental stewardship is a priority goal  
25 of the Navy during mission training activities.

0010

1 The Navy is committed to protecting the  
2 physical and natural environment and has established a  
3 successful track record of environmental stewardship  
4 while completing our mission.

5 To accomplish our environmental stewardship  
6 goals, the Navy implements protective measures on land  
7 and at sea to reduce potential effects to the  
8 terrestrial and marine environment and ensure public  
9 safety and accessibility.

10 I will now turn the presentation over to John  
11 Mosher from the U.S. Pacific Fleet who will tell you  
12 about the Navy's Proposed Action for the Northwest  
13 Training Range Complex and give you an overview of the  
14 Draft EIS and the environmental analysis process.

15 MR. MOSHER: Thank you, Commander.

16 My name is John Mosher, and I am the project  
17 manager for the Northwest Training Range Complex EIS.  
18 I am here tonight to give you an overview of the  
19 findings contained in the Draft EIS.

20 The Draft EIS was prepared by the U.S. Navy  
21 to comply with both the National Environmental Policy  
22 Act, or NEPA, and Executive Order 12114, which  
23 requires federal agencies to consider the  
24 environmental effects of their activities that occur  
25 outside of territorial waters. The Draft EIS

0011

1 represents compliance with these environmental  
2 statutes and is an important part of the Navy's  
3 overall commitment to environmental stewardship as it  
4 tests and trains.

5 The Navy is the lead agency for the EIS. The  
6 National Marine Fisheries Service is a cooperating  
7 agency, in addition to their role as a regulator. As  
8 a cooperating agency, they provide early review of the  
9 proposed action, alternatives and analysis methods.  
10 As a regulator, they help ensure that the EIS and the  
11 Proposed Action are in full compliance with  
12 environmental laws and regulations.

13 This slide lists the actions that the Navy is  
14 proposing to conduct that are analyzed in the Draft  
15 EIS. Not all of the actions are included in each  
16 alternative. Over the next three slides, I will  
17 discuss which actions are included in each  
18 alternative.

19 The Proposed Action is needed to provide a  
20 training environment consisting of ranges, training  
21 areas and range instrumentation, with the capacity to

22 fully support required training tasks for operational  
23 units and military schools. The Proposed Action  
24 supports the overall Navy mission as required by  
25 federal law.

0012

1 Under the No Action Alternative, training and  
2 testing activities would continue at current levels.  
3 This alternative would not accommodate increased or  
4 new training activities, and range investments and  
5 enhancements would not be implemented.

6 The No Action Alternative provides a baseline  
7 for assessing the potential environmental effects of  
8 the other alternatives.

9 Alternative One is a proposal designed to  
10 meet Navy and Department of Defense near-term training  
11 requirements.

12 This alternative includes an increase in  
13 training activities currently conducted and  
14 accommodates force structure changes associated with  
15 the introduction of new weapon systems, vessels and  
16 aircraft. These include the EA-18G Growler Aircraft,  
17 SSGN Guided Missile Submarine, P-8A Multimission  
18 Maritime Aircraft and Unmanned aerial systems.

19 Alternative Two is also designed to meet  
20 current and near-term training requirements.

21 It includes all activities identified under  
22 Alternative One, plus an increase in the level of  
23 training activities identified in Alternative One. In  
24 addition Alternative Two provides for the  
25 implementation of range enhancements including: New

0013

1 air and sea surface targets, the operation of air  
2 target services for locally-based aircraft and  
3 vessels, the development of an additional electronic  
4 signal emitter, the development of an underwater  
5 training minefield, and use of a portable undersea  
6 tracking range.

7 Alternative Two is the Navy's preferred  
8 alternative because it fully supports the type and  
9 frequency of activities required to achieve complete  
10 fleet readiness and carry out its mission in the  
11 Northwest Training Range Complex.

12 In preparing the Draft EIS, the Navy  
13 evaluated the potential effects of the alternatives to  
14 marine, terrestrial and human environment.

15 We have taken a comprehensive approach in  
16 assessing the potential effects to physical,  
17 biological and socioeconomic resources.

18 We encourage you, if you haven't already, to  
19 review the Draft EIS which presents the findings of  
20 the Navy's environmental analysis for each of these  
21 resource areas.

22 The Navy's use of active sonar and explosives  
23 puts sound into the marine environment. While  
24 preparing the EIS, Navy scientists analyzed the  
25 potential effects of sound in the water to marine

0014

1 life, including marine mammals, sea turtles, fish,  
2 seabirds and marine invertebrates.  
3 The method for determining potential sound  
4 exposures to a marine animal was jointly developed by  
5 Navy and the National Marine Fisheries Service, and  
6 represents the best currently available science.  
7 Marine mammal species have widely varying  
8 sensitivities to sound based on frequency. This is a  
9 reflection of how different species have evolved to  
10 cope with life in marine environment, including  
11 differences in size, prey, habitats, and the predators  
12 they try to avoid.  
13 Using the five general steps listed here, the  
14 Navy was able to calculate the number of potential  
15 marine animal exposures to sound from active sonar and  
16 explosives. Section 3.9 of the Draft EIS provides the  
17 results from the computer model as it relates to  
18 potential exposures to marine animals.  
19 Marine mammal sensitivity was determined by  
20 biologists from the National Oceanic and Atmospheric  
21 Administration, and that information was entered into  
22 the computer model. Marine animals can react  
23 differently to sounds. For example, the harbor  
24 porpoise found off the coast is very skittish.  
25 Therefore, sounds at a lower volume will cause them to  
0015  
1 startle much sooner than other cetaceans.  
2 While there is the possibility for non-lethal  
3 impacts and the altered behavior from the use of  
4 active sonar and sound associated with explosives, no  
5 mortality to marine mammals is anticipated. In  
6 addition, the estimation of sound exposures does not  
7 consider the use of protective measures, such as sonar  
8 safety zones, which would reduce the likelihood of  
9 exposures at the highest sound levels.  
10 No significant impact to sea turtles, fish or  
11 seabirds or marine invertebrates are anticipated from  
12 active sonar use.  
13 The use of explosives in Navy activities may  
14 result in injury or mortality to individual fish or  
15 seabirds in the immediate area or training; however,  
16 these activities would not result in significant harm  
17 to overall bird or fish populations or habitat.  
18 Given the relatively low number of explosive  
19 detonations associated with the Proposed Action, no  
20 significant impacts to marine invertebrates are  
21 anticipated. Also, the low occurrence of sea turtles  
22 in the Range Complex area makes the potential for  
23 significant impacts to sea turtles unlikely.  
24 The Navy does not expect to harm marine  
25 mammal populations, but it does recognize that there  
0016  
1 may be potential effects to individual marine mammals.  
2 To help guard against harming individual  
3 whales or other marine mammals during training, the  
4 Navy has developed protective measures, including:  
5 Posting a minimum of three well-trained lookouts 24

6 hours per day, conducting aerial sweeps of training  
7 areas used during air operations, establishing safety  
8 zones during training exercises using mid-frequency  
9 active sonar. Sonar is powered down if a marine  
10 mammal enters the 1,000-yard safety zone, and sonar is  
11 powered off if a marine mammal enters within 200 yards  
12 of the sonar dome.  
13 The Navy also coordinates with the National  
14 Marine Fisheries Service and reports marine mammals  
15 sited during major exercises.  
16 Over the past five years, the Navy has funded  
17 more than 100 million dollars in marine mammal  
18 research.  
19 A summary of the findings of the Draft EIS  
20 are presented here, using language required by  
21 environmental regulations.  
22 For most of the resources analyzed in the  
23 Draft EIS, we found no significant impacts. In your  
24 review of the Draft EIS, the four areas you may want  
25 to examine in more detail for species that may be  
0017  
1 affected by the Proposed Action are endangered  
2 species-listed fish, sea turtles, marine mammals and  
3 bird species.  
4 The Navy is in consultation with the National  
5 Marine Fisheries Service and the U.S. Fish and  
6 Wildlife Service to ensure the effects to endangered  
7 or threatened species are minimized.  
8 The Range Complex EIS also analyzed the  
9 potential effects of Navy training on the human  
10 environment. The resource areas and issues are  
11 analyzed include: Cultural resources, traffic,  
12 socioeconomics, environmental justice and the  
13 protection of children, and public safety.  
14 The findings in the EIS show that no  
15 significant impacts to the human environment are  
16 likely from the implementation of the Proposed Action.  
17 In addition, the Navy has initiated  
18 consultations with federally recognized Native  
19 American Tribes in the Northwest Training Range  
20 Complex area.  
21 In addition to complying with NEPA, the Navy  
22 also complies with other applicable federal  
23 environmental laws, including those listed here and  
24 all other applicable laws and regulations.  
25 The Navy has completed the first three steps  
0018  
1 of the NEPA process, and we are now in the phase  
2 providing for public review of the Draft EIS. To  
3 review the progress so far: The EIS was initiated on  
4 July 31, 2007, and the Navy held public scoping  
5 meetings in Washington, Oregon and Northern California  
6 in September 2007.  
7 Government agencies, organizations and the  
8 public were encouraged to submit comments at the  
9 scoping meetings or to provide written comments  
10 throughout the public comment period. The comments

11 received were considered in the preparation of the  
12 Draft EIS that we've discussed here tonight.  
13 We are now in the public hearing and  
14 documentation review step of the NEPA process. This  
15 phase is an essential parts of the NEPA process,  
16 because it allows the public to review the document  
17 and comment on the Navy's analysis of environmental  
18 effects.  
19 We encourage you to provide your input by  
20 February 11th so it may be considered for  
21 incorporation during the development of the final EIS.  
22 All comments received will be considered.  
23 The Navy is committed to keeping the  
24 community informed throughout the continued  
25 development of the Northwest Training Range EIS.

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1 These public hearings are just one of many  
2 opportunities to share information about the EIS and  
3 more importantly, to encourage your feedback and  
4 comments.

5 I will now turn over to Lewis Michaelson to  
6 describe how to obtain more information and how to  
7 comment on the Draft EIS.

8 MODERATOR MICHAELSON: Thank you.  
9 In addition to holding these public hearings,  
10 the Navy has established a Web site to make it easy  
11 for you to find and comment on environmental  
12 documents. The Draft EIS is posted to the Web site.  
13 The Web site also has additional background  
14 information and links to the fact sheets that are  
15 available here tonight.

16 You can also review the Draft EIS and other  
17 publicly available documents related to the Training  
18 Range Complex EIS by visiting the designated  
19 information repositories. The addresses of these  
20 repositories are provided in the fact sheet you can  
21 see tonight. Both the information repositories and  
22 the project Web site contain project documents, fact  
23 sheets and background information for you to review.

24 The Navy welcomes your review and input on  
25 the analysis contained in the Draft EIS, and there are  
0020

1 several ways for you to submit comments. Obviously,  
2 we are accepting oral comments tonight immediately  
3 after this presentation.

4 In addition, written comments can be  
5 submitted by filling out a comment form and either  
6 dropping it in the drop box located at the  
7 registration table or mailing it to the address  
8 provided here, which is also listed on the fact sheet.

9 Comments may also be submitted via the  
10 project Web site at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com). That  
11 address is also on the fact sheet.

12 Keep in mind, comments must be received by  
13 February 11th, 2009, to be considered in the Final  
14 EIS.

15 We will now begin the oral comment portion of

16 the public hearing.

17 To ensure that we get an accurate record of  
18 what you have to say, and so the court reporter can  
19 capture it, please help me by respecting the following  
20 ground rules: First, please speak clearly and slowly  
21 into the microphone over at the lectern to my left,  
22 starting with your name and any organization you  
23 represent, if that applies.

24 Secondly, each person, as we have in all of  
25 our other four hearings that we've held, this is our  
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1 fifth and last hearing, will be allotted four minutes  
2 to speak. Depending on the number of speakers, and we  
3 know that's a fairly short list tonight, there will be  
4 a second opportunity as well, if you'd like to come  
5 back for a second helping.

6 Third, if you have prepared a written  
7 statement, you may turn it in at the registration  
8 table or you may read it out loud if you can do so  
9 within the four-minute time limit.

10 Finally, please honor the request that I make  
11 for you to stop speaking. In order to make it easy  
12 for you to know when your four minutes will be up, I  
13 will hold up this sign when you have thirty seconds  
14 left in your four minutes (indicating), and it will  
15 enable you to find a comfortable place to wrap it up.  
16 And that will be the sign you will see when you've  
17 reached the four-minute time limit (indicating).

18 With that, we are now ready to begin calling  
19 speakers.

20 At this point, I believe I have one card.  
21 And so Patrick Higgins, if you would give us the  
22 honor. Step up to that microphone and again all you  
23 need to do is state your name. Appreciate it.

24 MR. PATRICK HIGGINS: My name's Pat Higgins.  
25 MODERATOR MICHAELSON: Go ahead. We had to  
0022

1 adjust it. It's on. We can hear you.

2 MR. PATRICK HIGGINS: Okay. I'm an elected  
3 official. I'm with the Humboldt Bay Harbor Recreation  
4 and Conservation District. We concern ourselves not  
5 just with development and health of the bay and  
6 recreational opportunities but also with fisheries  
7 near shore. So we've been working with the State of  
8 California and the Ocean Protection Council here to  
9 try to get them to better assess rock fish  
10 populations out here so that we aren't shut off from  
11 fishing for conservation reasons when in fact there is  
12 no need.

13 This -- my interest here this evening is in  
14 marine mammals. We have four submarine canyons here  
15 from the Trinity Canyon to the Eel River Canyon off --  
16 directly offshore here -- to the La Gorda Canyon and  
17 the Mendocino Canyon, so that's very, very  
18 extraordinary rich area in the ocean. And, therefore,  
19 also very, very well populated with marine mammals of  
20 all different types.

21 And I'm going to register concerns about,  
22 you know, when those exercises would be conducted  
23 because of the frequency of use and the richness of  
24 the biological fauna offshore here and in near-shore  
25 areas. We have, you know, thousands of ten thousands

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1 of marine mammals that are potentially affected. And  
2 I'm a little concerned that you want to reserve the  
3 right to train anywhere in this geographic area when  
4 in fact I would think that maybe some of these areas  
5 should be off limits because there's too great a risk  
6 and mitigations still may not be sufficient in terms  
7 of major disruptions to these populations.

8 I need to study this question more.  
9 I'm surprised there aren't more people here,  
10 though, because I think that there is a substantial  
11 disfavor in this community as a whole with the  
12 inordinate amount of money we're spending on the  
13 military. And we think that at some point there  
14 should be some reconsideration because certainly  
15 there's risk, but if we live in a fear-based culture,  
16 we may bankrupt ourselves with these military  
17 expenditures if they're unlimited.

18 Also, we're troubled by the Supreme Court's  
19 decision that you guys set precedent over whether or  
20 not the Endangered Species Act is enforced.

21 I'm here tonight to see that this is properly  
22 mitigated and trust that we can negotiate here with  
23 you and make sure that it doesn't have undue harm on  
24 our local resources.

25 But the question here, too, is, you know, we

0024

1 can always trump the Endangered Species Act by saying,  
2 There's a dire need because, otherwise, we're going to  
3 be attacked and, you know, I -- I think if we live in  
4 a fear-based culture, it won't lead to enrichment  
5 necessarily or longevity.

6 The last part was just Pat Higgins. That  
7 wasn't anything to do with the Harbor District. I  
8 wasn't representing anyone but myself.

9 MODERATOR MICHAELSON: Thank you.

10 Anyone else who's been inspired to come up  
11 and speak tonight?

12 MR. PATRICK HIGGINS: Aren't you glad I came?

13 MODERATOR MICHAELSON: That was your full  
14 four minutes. If you've got anything else to say, I  
15 think it's time for a second helping. If not, I think  
16 we'll go into recess.

17 MS. MARY BAWDEN: I have one.

18 THE MODERATOR: Would you like to come up?

19 Sure. Go ahead.

20 I do need to have you come up to the  
21 microphone. We'll have you fill out a card  
22 afterwards. How's that?

23 All right.

24 MS. MARY BAWDEN: Thanks for coming tonight  
25 to the Navy.

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1 My name's Mary Bawden, and I am -- I live  
2 here in Eureka. And I've worked 29 years at DMV. I  
3 worked a few years at Fish and Game just as a clerk,  
4 but I just -- I guess I'm just curious: Has there  
5 been any -- any studies that show that this type of --  
6 you know, the ordnance and blowing up things, does  
7 that cause -- anything like those dead zones that you  
8 hear about places where, you know, nothing -- nothing  
9 lives.

10 And I was just wondering if there's any -- if  
11 there's any -- if there's any correlation there  
12 between a lot of, you know, bombs and stuff and just  
13 where, you know, there's no fish anymore, just --  
14 something like that.

15 That is my question.

16 MODERATOR MICHAELSON: Thank you very much  
17 for your comments.

18 MS. MARY BAWDEN: Okay. Thank you.

19 MODERATOR MICHAELSON: And anyone else who  
20 would like to come up for the first time?

21 Anyone else for the second time?

22 Go ahead. Give us your name.

23 MR. PATRICK HIGGINS: Pat Higgins coming back  
24 for the second time.

25 Some lethal effects -- you know, if we don't

0026

1 radio tag these marine mammals -- I guess I'll have to  
2 dig into -- it's a hundred million dollars' worth of  
3 studies that you guys have done. Is that all public?

4 I'd like to read to see whether you got  
5 marine mammals tagged because you can -- just because  
6 you don't kill them, doesn't mean you're not  
7 disrupting social behaviors and therefore,  
8 inordinately affecting their ability to reproduce  
9 which then ultimately has the same effect on a  
10 population level and not on an individual level.

11 So I'm very concerned about disruption of  
12 social grouping and behavioral patterns because these  
13 things have tried and true, tested patterns that have  
14 worked for millions of years, and, if you knock them  
15 out of their with sound, then they're no longer in the  
16 environment with which they go along.

17 MODERATOR MICHAELSON: Thank you, very much.

18 We'll go into recess. And the people  
19 staffing stations will go back there, see if there's  
20 any other individual questions that they can answer  
21 for you.

22 Thank you very much.

23 (At 7:35 p.m., a recess was taken.)

24 MODERATOR MICHAELSON: Okay. We're going to  
25 go back on the record here.

0027

1 We have another member of the public to  
2 present himself who would like to make a comment,  
3 so we'll dispense with most of the formalities here  
4 except that -- to explain we do have a consistent

5 way of taking comments. We allow four minutes for  
6 everybody, and -- but we also allow second helpings.  
7 This might seem a little perfunctory, but  
8 we'll just go through it to make sure it's consistent  
9 with all the hearings. At three and a half minutes,  
10 I'll hold up this sign letting you know you have  
11 thirty seconds left (indicating). And then when you  
12 get to four, I'll hold up this one (indicating).  
13 And then I'll ask if anyone else has any  
14 comments, if not, I'll give you another four  
15 minutes.  
16 So that's how we'll do it.  
17 So give us your name.  
18 MR. GORDON ANDERSON: My name's Gordon  
19 Anderson. I've lived here locally for the last 35  
20 years.  
21 And I'm just very concerned about -- in this  
22 assessment of whether this is environmentally  
23 positive. I'm very concerned for the marine mammals  
24 and the sonar relationship to them because of -- it's  
25 known that there -- it's very highly likely -- there's  
0028  
1 correlation with the use of it and beaching and the  
2 death of many whales.  
3 So after talking with the gentleman here, he  
4 -- your placement of the -- your stance is that you're  
5 studying it. You're concerned that mammals and all.  
6 I -- one thing that comes to me is that I  
7 would like to see good, good records of the times and  
8 intensities of the use of the sonar so that if  
9 something does happen, it's detectable -- that there  
10 could be correlations of it would be usable and  
11 documentation of the science of it and the  
12 connection.  
13 I know you guys are going to do what you're  
14 going to do, but it would be nice if it was, you  
15 know -- the rest of the animals on this planet are  
16 more important than our national security, which is  
17 being used to take away safeguards of late, so --  
18 by the Supreme Court -- so I'm just very concerned  
19 with the marine mammals, and that's longevity.  
20 I hope that you'll take that into  
21 consideration, the documentation and making it so it  
22 is available so that it could be used -- not just  
23 certain testing at certain times.  
24 Okay. That's it.  
25 MODERATOR MICHAELSON: All right. Thank you  
0029  
1 very much.  
2 I think we are officially adjourned at  
3 eight-fourteen.  
4 Thank you.  
5 (The proceedings were concluded at 8:14 p.m.)  
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0030  
1 STATE OF CALIFORNIA )  
2 ) ss.  
3 COUNTY OF HUMBOLDT )  
4  
5  
6 I, Marlene A. Ragain, Certified Shorthand  
7 Reporter No. 11343 for the State of California, do  
8 hereby certify:  
9 That said hearing was taken down by me in  
10 shorthand at the time and place therein named and  
11 thereafter reduced to typewriting under my direction  
12 and the same is a true, correct and complete  
13 transcript of said proceedings.  
14 I further certify that I am not interested in  
15 the outcome of the action.  
16 Witness my hand this 20th of February,  
17 2009.  
18  
19  
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21  
22  
23  
24  
25  
MARLENE A. RAGAIN, Certified  
Shorthand Reporter No. 11343  
for the State of California

	022609 navy hearing	1
1	NORTHWEST TRAINING RANGE COMPLEX	
2	DRAFT ENVIRONMENTAL IMPACT STATEMENT/ OVERSEAS ENVIRONMENTAL IMPACT STATEMENT	
5	PUBLIC HEARING	
6	AND	
7	PUBLIC COMMENT SESSION	
9	TRANSCRIPT OF PROCEEDINGS	
10	Volume I --- Pages 1 - 57	
12	DATE: February 26, 2009	
13	TIME: 7:00 - 8:30 p.m.	
14	LOCATION: Tillamook County Fairgrounds Auditorium 4603 E. 3rd Street Tillamook, Oregon 97141	
17	MODERATOR: Commander Sherry King	
24	REPORTED BY: KATHERINE SHELLEY SHORTHAND REPORTER	
		2
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7	PUBLIC TESTIMONY INTRODUCTION Commander Sherry King.....	19
9	PUBLIC TESTIMONY	
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1	TILLAMOOK, OREGON, FEBRUARY 26, 2009, 7:07 P.M.	
2		
3	COMMANDER KING: Good evening. Thank you for	
4	coming tonight. My name is Commander Sherry King, and	
5	I'm the moderator for this hearing on the Northwest	
6	Training Range Complex draft environmental impact	
7	statement or draft EIS.	
8	The acoustics in here aren't the best, so if	
9	you can't understand me or hear us, just say so, and	
10	we'll try to do something different. Also, if you have	
11	cell phones, make sure they are turned to silent so	
	Page 2	

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12 that people don't have to listen to your phone. That  
13 would probably be good.

14 The purpose of this hearing tonight is to  
15 receive public comments on the draft EIS. Before  
16 moving forward I would like to explain my role in this  
17 hearing. I'm a United States Navy Reservist, I'm a  
18 member of the judge advocate's court, and a military  
19 judge. I have not been involved in the development of  
20 this draft EIS, and I am not here to act as a legal  
21 adviser to the Navy or a representer of this proposal.  
22 My role as a moderator is for this to be a fair,  
23 orderly, and impartial hearing and that all who wish to  
24 be heard have the opportunity to speak.

25 Here to receive your comments tonight are <sup>4</sup>

1 Captain Gerral David, commanding officer of Naval  
2 Station Whidbey Island, and Mr. John Mosher, the  
3 project manager from the Navy sonar fleet.  
4 Ms. Kimberly Kler, the project coordinator for the  
5 Naval Facilities Engineering Command Northwest, is also  
6 present. And she is the primary point of contact for  
7 sharing your written comments about the project.

8 Let's look at the agenda for tonight.  
9 Hopefully, you all have had an opportunity to talk to  
10 the experts and program officials who were staffing the  
11 exhibits in the back of the building during the open  
12 house. The primary purpose of this portion of the  
13 hearing is for the panel to listen to your comments  
14 firsthand. They will not be answering questions during  
15 this phase of the proceedings. Comments and questions  
16 will be addressed in the final EIS.

17 After I finish this introduction, Captain

Page 3

022609 navy hearing  
18 David will give you a brief overview of the Navy's  
19 activities in the Northwest Training Range Complex.  
20 Next, Mr. Mosher will brief you on the environmental  
21 impact process and summarize the results reported in  
22 the draft EIS. Mr. Mosher is the EIS project manager  
23 for the U.S. Navy.

24 The last item on the agenda, however, is the  
25 most important. The public comment session is your <sup>5</sup>

1 opportunity to provide information and make statements  
2 for the record. Your input ensures that the  
3 decision-makers can benefit from your knowledge of the  
4 local area and the environment and any environmental  
5 effects that you think may result from the proposed  
6 action or the alternatives.

7 Keep in mind that the EIS process is intended  
8 to ensure that the decision-makers will be fully  
9 informed about the potential environmental impact  
10 associated with the various alternatives before they  
11 decide on a course of action. Please remember that  
12 comments and issues unrelated to this EIS or beyond the  
13 scope of this hearing will not be addressed.

14 If you haven't already done so, to request an  
15 opportunity to make a verbal comment, you'll need to  
16 fill out the verbal comment card. They're available at  
17 the registration desk, and it looks like this. If you  
18 could turn it into a staff person, then we'll add you  
19 to the list of speakers.

20 Every speaker including public officials,  
21 organizational spokespersons, and private individuals  
22 will have five minutes each to provide his or her  
23 comments. If you don't feel comfortable standing up

Page 4

24 there tonight to make a statement, you have until March  
25 11, 2009, to submit a written statement for

6

1 consideration in the final EIS. Or you can wait until  
2 the public comment session is over and provide your  
3 comments privately to the court reporter at the side of  
4 the room. She is over on the left side of the room  
5 here. Keep in mind that written comments are given the  
6 same consideration as the verbal comments offered here  
7 tonight.

8 Now, it is my pleasure to introduce Captain  
9 Gerral David.

10 CAPTAIN DAVID: Thank you. Welcome to the  
11 public hearing for the Northwest Training Range Complex  
12 draft environmental impact statement. My name is  
13 Captain Gerral David. I'm the commanding officer of  
14 Naval Air Station Whidbey Island. I want to thank you  
15 on behalf of the United States Navy for attending this  
16 evening.

17 This is one of about six public hearings that  
18 the Navy has held in Washington, Oregon, Northern  
19 California for the Northwest Training Range Complex  
20 draft EIS. As Commander King mentioned, we hope you  
21 had the chance to visit and meet with the Navy project  
22 team.

23 I became commanding officer of Naval Air  
24 Station Whidbey Island in July 2007. As commander of  
25 the Navy's sole aviation installation in the Pacific

7

1 Northwest, I'm responsible for providing the shore  
2 infrastructure that ensures the people and aircraft of  
3 thirteen electronic attack air squadrons, five patrol  
4 squadrons, two fleet air squadrons, one fleet logistics

5 squadron, and two helicopter search and rescue  
6 attachments are ready for deployment to fight in our  
7 nation's war.

8 So you've got a little personal background on  
9 me, I'm a P-3 Naval flight officer with about 3,300  
10 flight hours, so I've done a whole bunch. I've been  
11 deployed worldwide on the squadron. I was in the  
12 commander squadron in Hawaii. I was in the squadron  
13 when 9/11 happened, and I have crews that have flown in  
14 Afghanistan and Iraq. I had a crew that flew over the  
15 Philippines when Gracia Burnham, the missionary, was  
16 rescued. I've been around a little bit.

17 The other part of my Navy life is, my wife is  
18 an engineer and for the last fourteen years has done  
19 environmental work. Based on that background and what  
20 I've done, I want you to know, personally, I'm proud of  
21 the Navy and the Department of Defense and our  
22 environmental record and things that we do, trying to  
23 do the right thing.

24 At the conclusion of this presentation,  
25 you'll have an opportunity to make oral comments

8

1 regarding the content of the environmental analysis.  
2 Written comments will be accepted tonight and  
3 throughout the public comment period, which closes  
4 March 11, 2009. We aren't authorized to address your  
5 comments tonight, but they will be addressed in the  
6 final project.

7 I'm proud of the involvement our country  
8 played in the active role and that the issues are  
9 discussed openly. And I'm glad you all are here, even  
10 if they make me keep my mouth shut.

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11 The Northwest Training Range Complex military  
12 training area has been in use by the Navy since World  
13 War II. It is comprised of two primary components: the  
14 offshore area and the in-shore area. The mission of  
15 the Northwest Training Range Complex is to serve as the  
16 principal backyard training range for those units  
17 homeported in the Pacific Northwest area including  
18 surface ships, submarine, aviation, and explosive  
19 ordnance disposal units located at the Naval Air  
20 Station Whidbey Island, the Naval Station Everett,  
21 Puget Sound Naval Shipyard, Naval Base Kitsap at  
22 Bremerton and the Naval Base Kitsap at Bangor. The  
23 Range Complex also supports military units from outside  
24 the Range Complex area, such as Naval Special Warfare  
25 Units and their training requirements.

9

1 The Range Complex includes ranges, training  
2 areas, and air space that extends west 250 nautical  
3 miles beyond Washington, Oregon, and Northern  
4 California and east to the Washington/Idaho border.  
5 The offshore component of the Range Complex encompasses  
6 122,400 square nautical miles of air, surface, and  
7 subsurface ocean training areas. The in-shore  
8 component includes about 875 acres of land on Whidbey  
9 Island and Indian Island, more than 12,000 square  
10 nautical miles of special-use air space as well as  
11 surface and subsurface training areas within Puget  
12 Sound.

13 I'm not going to read this list of mission  
14 areas to you, but I want you to know I've personally  
15 flown on about 70 percent in these mission areas on  
16 training flights in these ranges. I personally have  
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17 been involved in ensuring realistic, worthwhile,  
18 effective, and basic training while mitigating  
19 environmental impacts. To accomplish its mission in  
20 the Pacific Northwest, it is critical for the Navy to  
21 maintain and operate the necessary facilities to  
22 provide these critical training areas to the U.S. Navy  
23 commands so that the forces can train realistically.

24 Realistic training ensures that U.S. Navy  
25 personnel maintain the highest level of readiness and  
10

1 capability and is the single greatest asset that the  
2 military has in preparing and protecting the servicemen  
3 and women who defend our nation. There is no such  
4 thing as routine training when it comes to practicing  
5 combat skills. To ensure the Navy is fully ready for  
6 deployment requires specialized ranges for military  
7 personnel to learn through practical hands-on  
8 experience the technical skills necessary to  
9 effectively plan and conduct operations. Continuing  
10 technological advances also require more complex and  
11 varying testing and training scenarios to be able to  
12 combat new threats.

13 The Range's facilities and installations in  
14 the Northwest Training Range Complex are unique and  
15 provide training opportunities essential for the safety  
16 of military personnel, the success of the military  
17 mission, and the security of the United States. That  
18 allows us to have meetings like this one.

19 Environmental stewardship is a priority goal  
20 to the Navy during mission-training activities. We  
21 live here, too. It matters to us. The Navy is  
22 committed to protecting the physical and natural  
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022609 navy hearing

23 environment and has established a successful track  
24 record of environmental stewardship while completing  
25 our mission. To accomplish our environmental

11

1 stewardship goals, the Navy implements protective  
2 measures on land and sea to reduce potential effects to  
3 terrestrial and marine environment and ensure public  
4 safety and accessibility.

5 Now, I will turn over the presentation to  
6 John Mosher from the U.S. Pacific Fleet who will tell  
7 you about the Navy's proposed actions for the Northwest  
8 Training Range Complex and give you an overview of the  
9 draft EIS and the environmental analysis process.

10 MR. MOSHER: Thank you, Captain. My name is  
11 John Mosher, and I'm the project manager for the  
12 Northwest Training Range Complex. I'm the Pacific  
13 fleets' liaison to the Northwest and the environmental  
14 area. I'm here tonight to give you the overview and  
15 the findings of the draft EIS.

16 The draft EIS was prepared by the U.S. Navy  
17 to comply with both the National Environmental Policy  
18 Act, or NEPA, and Executive Order 12114, which requires  
19 federal agencies to consider the environmental effects  
20 of their activities that occur outside the U.S.  
21 territorial waters.

22 The draft EIS represents compliance with  
23 these environmental statutes and is an important part of  
24 the Navy's overall commitment to environmental  
25 stewardship as it tests and trains. The Navy is the

12

1 lead agency for the EIS, and the National Marine  
2 Fisheries Service is a cooperating agency, in addition

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3 to their role as regulator. As a cooperating agency,  
4 they provide early review of the proposed action, and  
5 they provide analysis of the Navy's alternatives and  
6 its methods. As regulator, they also ensure the EIS  
7 and the proposed action are in full compliance with the  
8 environmental laws and regulations.

9 This slide lists the actions that the Navy's  
10 been proposing to conduct that are analyzed in the  
11 draft EIS. Not all the actions are included and each  
12 alternative. Over the next three slides, I will  
13 discuss which actions are included and each  
14 alternative. The proposed action is needed to provide  
15 a training environment consisting of ranges, training  
16 areas, and range instrumentation with the capacity to  
17 fully support the required training tasks for operation  
18 units and military schools. The proposed actions  
19 support the overall mission of the Navy as required by  
20 federal law.

21 Under the no-action alternative, training and  
22 testing activities will continue at current levels.  
23 This alternative will not accommodate an increase for  
24 new training activities and range investments, and  
25 enhancements will not be implemented. The no-action

13

1 alternative provides a baseline for assessing potential  
2 environmental effects of the other alternatives.

3 Alternative 1 is a proposal designed for the  
4 Navy and Department of Defense near-term training  
5 requirement. This alternative includes an increase in  
6 training activities currently conducted and  
7 accommodates force-structure changes associated with  
8 the introduction of new weapon systems, vessels, and

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9 aircraft. These include the EA-18G Growler Aircraft,  
10 the SSGN Guided Missile Submarine, PA-8 Multimission  
11 Maritime Aircraft, and unmanned aerial systems.

12 Alternative 2 is also designed to meet  
13 current and near-term training requirements. It  
14 includes all activities identified under Alternative 1  
15 plus an increase in the level of training activities  
16 identified in Alternative 1. In addition, Alternative  
17 2 provides for the implementation of potential range  
18 enhancements including new air and sea surface targets,  
19 the operation of air target surfaces, services for  
20 locally based aircraft and vessels, the development of  
21 additional electronic signal emitter, the development  
22 of an underwater nonexplosive training mine field, and  
23 the use of portable undersea tracking range.

24 Alternative 2 is the Navy's preferred  
25 alternative because it fully supports the training<sup>14</sup>  
1 activities required to achieve complete fleet readiness  
2 and allows the Navy to carry out its mission in the  
3 Range Complex.

4 In preparing the draft EIS, the Navy  
5 evaluated potential effects of the alternatives to the  
6 marine, terrestrial, and human environment. We have  
7 taken a comprehensive approach in assessing potential  
8 effects to physical, biological, and socioeconomic  
9 resources. We encourage you, if you haven't already,  
10 to review the draft EIS which presents the findings of  
11 the Navy's environmental analysis for each of these  
12 resource areas.

13 The Navy's use of active sonar and explosives  
14 puts sound in the marine environment. While preparing

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15 the EIS, Navy scientists analyzed the potential effects  
16 of sound in the water to marine life, including marine  
17 mammals, sea turtles, fish, sea birds, and marine  
18 invertebrates. The method for determining potential  
19 sound exposures to marine mammals was jointly developed  
20 by the Navy and the National Marine Fisheries Service  
21 and represents the best science currently available.

22 Marine mammal species have widely varying  
23 sensitivity to sound based on frequency. This is a  
24 reflection of how different species have evolved to  
25 cope with life in the marine environment, including<sup>15</sup>

1 differences in size, prey, habitat, and the predators  
2 they try to avoid. Using the five general steps listed  
3 here, the Navy was able to calculate the number of  
4 potential marine animal exposures to sounds from active  
5 sonar and explosives. Section 3.9 of the Draft EIS  
6 provides the results of the computer model as it  
7 relates to the potential exposures to marine animals.

8 Marine mammal sensitivity was determined by  
9 biologists from the National Oceanic and Atmospheric  
10 Administration and that information was entered into  
11 the computer model. Marine animals react differently  
12 to sounds. For example, the harbor porpoise found off  
13 the coast is very skittish. Therefore, sounds at a  
14 lower-level volume will cause him to startle much  
15 sooner than other cetaceans.

16 While there is a possibility for non-lethal  
17 impacts and altered behavior from these active sonars  
18 and sounds associated with explosives, no mortality to  
19 marine animals is anticipated. In addition, the  
20 estimation of sound exposures does not consider the use

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21 of protective measures such as sonar safety zones,  
22 which will reduce the likelihood of exposures to sound  
23 at the highest levels. No significant impacts of sea  
24 turtles, fish, sea birds, or marine invertebrates are  
25 anticipated from the use of active sonar.

16

1 The use of explosives may result in injury or  
2 mortality to individual fish or sea birds in the area,  
3 however, these activities would not result in  
4 significant harm to overall bird or fish populations  
5 and habitat. Given the relatively low number of  
6 explosive detonations associated with the proposed  
7 action, no significant impacts to marine invertebrates  
8 are anticipated. The low occurrence of sea turtles in  
9 the Range Complex area makes the potential for  
10 significant impacts to the sea turtles unlikely.

11 The Navy does not expect to harm marine  
12 mammal populations, but does recognize that there may  
13 be potential effects to individual marine animals. To  
14 help guard against harm to whales or other mammals  
15 during training, the Navy has developed protective  
16 measures, including posting a minimum of three  
17 well-trained lookouts 24 hours a day, conducting aerial  
18 sweeps of the training area during air operations,  
19 establishing a sonar safety zone during training  
20 exercises, and using mid-frequency active sonar.

21 In this situation, the sonar is powered down  
22 if the marine mammal enters the 1,000-yard safety zone  
23 and sonar is powered off if the marine mammal enters  
24 within 200 yards of the sonar dome. The Navy also  
25 coordinates with the National Marine Fisheries Service

17

1 and reports marine mammals sighted during major

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2 exercises.

3 Over the past five years, the Navy has spent  
4 over \$100 million in marine mammal research. Some of  
5 the findings of the draft EIS are presented here using  
6 language required by environmental regulations. For  
7 most of the resources analyzed in the draft EIS, we  
8 found no significant impacts.

9 In your review of the draft EIS, the four  
10 areas you may want to examine in more detail for  
11 species that may be affected by the proposed actions  
12 include endangered species of fish, sea turtles, marine  
13 mammals, and bird species. The Navy is in consultation  
14 with the National Marine Fisheries Service and the U.S.  
15 Fish and Wildlife Service to ensure the effects to  
16 endangered or threatened species are minimized.

17 The Range Complex EIS also analyzed the  
18 potential effects of Navy training on the human  
19 environment. This resource area analysis included  
20 cultural resources, traffic, socioeconomics,  
21 environmental justice in the protection of children,  
22 and public safety. Although there is no potential  
23 for -- although there is potential for negative  
24 economic impacts from implementation of the undersea  
25 tracking range and the undersea explosive mine fields,

18

1 the findings in the EIS show that no significant  
2 impacts to the human environment are likely from the  
3 implementation of the proposed action.

4 In addition, the Navy has initiated  
5 consultations with federally recognized Native American  
6 tribes in the Northwest Training Range area. In  
7 addition to complying with NEPA, the Navy also complies

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8 with other applicable federal and environmental laws  
9 including those listed here and all other applicable  
10 laws and regulations.

11 The Navy has completed the first three steps  
12 of the NEPA process and is now in the phase for  
13 providing public review and comments of the draft EIS.  
14 To review progress so far, the EIS was initiated on  
15 July 31, 2007, and held public scoping meetings in  
16 Washington, Oregon, and Northern California in  
17 September of 2007. Government agencies and  
18 organizations and the public were encouraged to submit  
19 comments at the scoping meetings or provide brief  
20 written comments throughout the public comment period.  
21 The comments received were considered in the  
22 preparation of the draft EIS that we discussed tonight.

23 We are now in the public hearing and document  
24 review step of the NEPA process. This phase is an  
25 essential part of the NEPA process because it allows  
19

1 the public to review the document and comment on the  
2 Navy's analysis of the environment effects. We  
3 encourage you to provide your input by March 11th so it  
4 can be considered in appropriation in the development  
5 of the final EIS. All comments received will be  
6 considered.

7 The Navy is committed to keeping the  
8 community informed throughout the continued development  
9 of the Northwest Training Range Complex EIS. These  
10 public hearings are just one of many opportunities to  
11 share information about the EIS and more importantly to  
12 produce your feedback and comments.

13 I'll now turn you back to Commander King to  
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14 describe how to obtain more information and how to  
15 comment on the draft EIS. Thank you.

16 COMMANDER KING: Thank you. In addition to  
17 holding these public hearings, the Navy has established  
18 a website to make it easy for you to find and comment  
19 on the environmental documents. The draft EIS is  
20 posted on the website. The website also has additional  
21 background information and links to the fact sheets  
22 that are available here tonight.

23 You may also review the draft EIS and other  
24 publically available documents related to the Northwest  
25 Training Range Complex EIS by visiting the designated  
20

1 information repositories. The addresses of the  
2 repositories are listed in the NEPA progress and  
3 community involvement fact sheet that I think most of  
4 you got. We've also sent the information to an  
5 additional repository. Those additional repositories  
6 are listed on the website. Both the information  
7 repositories and the project website contain project  
8 information and background information for you to  
9 review.

10 The Navy welcomes your comments and input  
11 into the analysis containing the draft EIS, and there  
12 are several ways for to you submit your comments.  
13 First and foremost, we will be accepting your comments  
14 here tonight immediately after this presentation.  
15 Written comments can be submitted by filling out a  
16 comment form and either dropping it off here tonight at  
17 the registration table or mailing it to the address  
18 provided to the form. Comments may be submitted via  
19 the website at [www.NWTRangeComplexEIS.com](http://www.NWTRangeComplexEIS.com). The address  
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20 is there on the screen and it is also in the fact sheet  
21 that you picked up tonight. All comments must be  
22 received by March 11, 2009 to be considered in the  
23 final EIS.

24 We will now begin the public comment portion  
25 of this hearing. If there is anybody that did not fill  
21

1 out one of these comment sheets, but would like to make  
2 an oral comment, please raise your hand and we can get  
3 you a form.

4 We have a stenographer here tonight who will  
5 report each speaker's comments. To ensure she gets it  
6 accurately, if you would please speak clearly into the  
7 microphone provided and speak one person at a time. At  
8 the start of your comments please state and spell your  
9 name so the court reporter can record it accurately.  
10 If you are reading from a document, please read slowly  
11 and clearly. If you provide us with a copy of that  
12 written statement, that will ensure that it's accurate  
13 when it's reported.

14 Each person will be allotted five minutes to  
15 speak. Depending on the number of speakers and the  
16 time remaining in this public hearing, I may be able to  
17 offer individuals a second opportunity to speak.

18 Third, if you have prepared a written  
19 statement and you would like to turn it in instead of  
20 reading it out loud, you can do that. Or you can also  
21 read it out loud if you can do so within the  
22 five-minute time limit.

23 And, finally, I ask please honor any request  
24 I make for you to stop speaking when you have reached  
25 the five-minute time limit. I have some cards that I  
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1 will hold up. They may be kind of hard to see when  
2 you're speaking, but the green is one minute left,  
3 yellow is thirty seconds left, and when I hold up the  
4 red sign, had means your five minutes are up. I would  
5 ask that you finish at that time and take your seat so  
6 the next person can make their comments.

7 If you still have more to say, the court  
8 reporter will be here afterwards and you can privately  
9 give her the information and she'll take it down for  
10 you, write it down. All comments are considered,  
11 however made, as long as they are given by March 11th.  
12 Keep in mind the written comments are given the same  
13 consideration as verbal comments. So if you really do  
14 have something to say and don't want to say it publicly  
15 tonight, certainly feel free to take one of those forms  
16 with you or fill it out here or go to the website.

17 Do you have a question?

18 UNIDENTIFIED SPEAKER: Is there going to be a  
19 question-and-answer period at all?

20 COMMANDER KING: If there is time afterwards  
21 and you would like to talk to some of the people here,  
22 but there is not a public question-and-answer session  
23 during this portion. This portion is for you to give  
24 your comments to the Navy officials. Those questions  
25 will be reviewed and commented on in the final EIS.  
23

1 Now, for all of those people who have signed  
2 up to speak, have completed their comments before our  
3 meeting ends at 8:30, a second opportunity will be  
4 given to those who wish to do so a second time. And at  
5 that time, once we reach 8:30, we will adjourn.

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6 Before I start taking comments from the  
7 public, I want to offer public officials or  
8 representatives of public officials an opportunity to  
9 make a comment, if you wish. Are there any public  
10 officials or representatives of public officials who  
11 wish to make a comment?  
12 UNIDENTIFIED SPEAKER: I'll take my turn with  
13 everybody else.  
14 COMMANDER KING: We'll start with Linda  
15 Buell.  
16 MS. BUELL: My name is Linda Buell, L-i-n-d-a  
17 B-u-e-l-l. I represent the Fisherman's Advisory Group  
18 for Tillamook. And I'd like to thank the Navy for  
19 coming here tonight and giving us the opportunity to  
20 ask questions.  
21 You answered almost all my questions. I have  
22 one comment to make, and that would be, if you're in  
23 our area and going to deploy ships, that they don't  
24 affect fishermen very much. Did you contact, perhaps,  
25 the Oregon Department of Fish and Wildlife and the  
24  
1 local fishermen's committees up and down the coast.  
2 There is a fishermen's committee in Newport and so  
3 forth, to ask about our seasons? As an example, we  
4 have a halibut season that is only about twelve days in  
5 the spring. If you were going to do some activities on  
6 those days and didn't let us get out for halibut, that  
7 would cost a significant part of our wage. That is the  
8 only comment that I have to make. Thank you. I'm  
9 sorry, I should add that there are other seasons, too,  
10 so that is why you should contact the local agencies.  
11 COMMANDER KING: Thank you very much. The

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12 next speaker I have is Mick Buell.  
13 Edna Kenney.  
14 MS. KENNEY: My name is Edna Kenney, E-d-n-a  
15 K-e-n-n-e-y. I thank you, the Navy, for coming  
16 tonight.  
17 I just want you to know we're in favor of all  
18 this. I'm very pleased that they are doing the studies  
19 and all to make sure everything is all right. But I  
20 feel that our Navy, our troops, they need proper  
21 training and proper exercise. The equipment that we  
22 have today is so different from what we used to have,  
23 and I feel that they need to be trained with the  
24 equipment so they can do the jobs they are asked to do.  
25 We do have four children that are in the Navy  
25  
1 at this time. They travel all over the world. We  
2 never know where they are until they're back. Their  
3 lives are in danger many, many times, and it's nice to  
4 know that they know what they are doing when they are  
5 there and do have the equipment to use while they're  
6 there and they know how to use it properly. Thank you.  
7 COMMANDER KING: And Robert Kenney, do you  
8 want to make a statement?  
9 MR. KENNEY: My name is Robert Kenney,  
10 K-e-n-n-e-y, and I'm a Navy veteran.  
11 As my wife just said, we have four kids in  
12 the Navy. If they don't get the proper training, their  
13 lives are in danger. We need them to have the best and  
14 the proper training.  
15 We were fortunate in that we rode a destroyer  
16 up from San Diego to Everett, Washington, on a family  
17 cruise. It was very impressive to see how they were

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18 environmentally conscious from the polish to the brass.  
19 The grandson got a chance to view that. Material was  
20 not thrown overboard, it was put into containers for  
21 when they got to the dock to go into dumpsters. When  
22 we did pull into the docks, the first thing that went  
23 around that ship was an absorbing boom so if there was  
24 any spills, leakage, on that Navy ship it would have  
25 been contained. I was very impressed with how the Navy  
26

1 was environmentally friendly.

2 we need to have the best training that you  
3 guys can possibly give them, and we support you 100  
4 percent. Thank you.

5 COMMANDER KING: Thank you. And the next  
6 speaker I have is Lorraine Vandecovering.

7 MS. VANDECOVERING: welcome to the Navy. And  
8 I thank all of you for coming. I'm Lorraine  
9 Vandecovering from Garibaldi.

10 My family was in the fishing business since  
11 1957 from Alaska to California. And I would like to  
12 have the Navy know how much we appreciate them here  
13 working so well with the environment. That is very  
14 important to us because our food production off the  
15 ocean depends on the environment. And, also, I would  
16 like to say that our fishermen are very environmentally  
17 conscious. They bring a lot of the -- they bring all  
18 that they possibly can and some of the stuff doesn't --  
19 it's irretrievable.

20 And we were at one time also in the charter  
21 business. We had the largest family-owned fishing  
22 fleet on the Oregon coast for a number of years. And  
23 during that time we were -- well, Teddy Roosevelt

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24 established Three Arch Rocks as a national game  
25 preserve. And for a while we would very carefully take  
27

1 tourists around to Three Arch Rocks to see all the rare  
2 birds and the common birds. It was an enormous draw  
3 for people all over the world. And all of a sudden we  
4 were restricted from going over there. I'm retired, so  
5 it's been a few years.

6 we were restricted from going very close to  
7 the rocks. Now, my question is, how would the -- how  
8 would the sonar and activity not affect our seafood if  
9 it -- if we were restricted from going too close to the  
10 rocks? And, there again, our tourist business really  
11 benefited by having these international guests be  
12 treated to such a sight. Thank you.

13 COMMANDER KING: Thank you. The next speaker  
14 will be Jim Carlson.

15 MR. CARLSON: Thank you so much for coming to  
16 Tillamook.

17 I was at the meeting in Newport last month,  
18 and I basically found out about that meeting the day,  
19 the morning, of the meeting, and unfortunately was a  
20 little bit disappointed that there either wasn't  
21 appropriate outreach for this meeting. In this part of  
22 the world, we usually give people at least a week,  
23 usually a couple weeks lead time in the newspaper and  
24 radio and whatnot in order to put their schedules  
25 together so they can come to an important meeting like  
28

1 this.

2 Unfortunately, I believe the newspaper came  
3 out yesterday with an ad informing the public to this  
4 meeting. I obtained a postcard, I suppose from the

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5 mailing list that I got on from the last meeting this  
6 morning, so I would hope that other meetings that you  
7 have take into consideration that people need a little  
8 bit more lead time so they know that it's an important  
9 issue to calendar and speak to or get informed on.

10           which brings me to the fact that this, the  
11 EIS report, is a large document, it's very complicated  
12 and technical. And it usually takes the average person  
13 quite a while to decipher what you folks may seem to be  
14 pretty straightforward information.

15           But I am a little bit concerned about how  
16 operations will affect, number one, the tuna fleet. I  
17 didn't notice in any of the information or the slide  
18 show that there were references to tuna. I know  
19 they'll be fishing for tuna out in this part of your  
20 designated area.

21           And I also want to encourage you to be very  
22 cognizant of our whale population. This is a  
23 destination area, and we have a lot of people that come  
24 out to this part of the world to do whale watching.  
25 That would have a desiccating effect on some of the

1 operations and hotels and whatnot that use that as a  
2 money-making opportunity.

3           So three things I would recommend. Number  
4 one, I didn't mention before, but I think you should be  
5 aware that the state of Oregon is in the process of  
6 amending the Territorial Sea Plan, which incorporates  
7 some areas of what you're talking about. So I would  
8 hope you can work and inform the Governor's office, and  
9 specifically the people working, the working group that  
10 is working on the Territorial Sea Plan, so that there

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11 can be a cooperative involvement and shared information  
12 on that.

13           Secondly, hopefully, we'll have more time for  
14 folks that have gained information tonight to respond.  
15 So I would hope that you would, rather than have the  
16 March 11th date for public comment, push that out a  
17 couple more weeks at the very least.

18           And, thirdly, I recommend that you stay with  
19 the current activities. Thank you so much.

20           COMMANDER KING: The next speaker will be  
21 Charlotte Mills.

22           MS. MILLS: My name is Charlotte Mills. I  
23 live in Lincoln County in Tidewater, 480 Buck Creek  
24 Road.

25           And I -- read the name for the second time,  
30

1 like Jim, I attended the January 30th meeting in  
2 Newport and I came as an individual, then, and I come  
3 tonight as a member of a group, who after that 30th  
4 meeting, because of the low attendance, called the  
5 newspaper and the library and found out the NEPA  
6 compliance. Did the newspaper in Oregon get notified?  
7 Did the library get a copy of the environmental  
8 statement? Did even one Oregon citizen get properly  
9 notified of that 30th meeting? They did not.

10           And we have contacted the congressional  
11 delegation five days in a row recently to report those  
12 incidents, and I think that is why this meeting here in  
13 Tillamook has been scheduled. Because our  
14 congressional delegation said -- they said -- because  
15 we reported to them the Navy has not complied with  
16 NEPA, with the National Environmental Policy Act, which

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17 meant that they were to inform -- because they only  
18 scheduled one meeting in Oregon, at least one  
19 newspaper.

20 For some strange reason, they said they  
21 informed the Lincoln City News Guard and that they  
22 placed a copy of the environmental impact statement at  
23 the Driftwood Library in Lincoln city. That is a good  
24 paper and a good library, but that wasn't where the  
25 meeting was held. It was held in Newport at the

31

1 Hatfield Marine Science Center.

2 When we called the News Guard, the News Guard  
3 said, "we didn't know anything about it." Five days  
4 later after we asked the questions, they found out on  
5 their own that there was a meeting, and then they  
6 properly published that story.

7 When we called the library we said, "we want  
8 to read the environmental impact statement, is it  
9 available?" The librarian said, "I have no idea." So  
10 he called back later and said, "well, it's in a box,  
11 but there is no cover letter with it saying what it is  
12 for or if it's time related." And so he called back  
13 later and said -- on the 13th of February, fifteen days  
14 after the 30th meeting, that it is now available for  
15 the public.

16 So believe me, bear with me, I'm not a public  
17 speaker, and I'm not sure I'm going to make this in  
18 five minutes, but I'll attempt to. When I moved my  
19 comments up in front to say, we found out similar  
20 things happened because of Tillamook. I called the  
21 Antler at Tillamook, the Lighthouse, and I said, "when  
22 did you get a notice of this meeting?" She said, "It's

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23 too late for last week's edition, so we'll put it in  
24 the 25th." That was yesterday. So the people in  
25 Tillamook, at least in print media, were only informed

32

1 yesterday.

2 By the way, I enjoyed this beautiful postcard  
3 I got in my mail box yesterday, the 25th, one day  
4 before this meeting that this was to happen.

5 So when we called Sarah at the Tillamook  
6 Library we said, "Is there a copy of the environmental  
7 impact statement so people in this area can read it and  
8 see what the Navy has planned?" So the librarian said,  
9 this is bizarre, she said, "It did come in a box some  
10 time ago, I don't remember the date. The address said  
11 our Tillamook Library but it was addressed to the  
12 Newport public library, so I sent it on to the Newport  
13 library," where they now have two copies and Tillamook  
14 has none.

15 So I'm going to say at the risk -- and I can  
16 talk to you about the fifteen newspapers on the Oregon  
17 coast. We understood one was forty-five pages, and  
18 I'll give you the score that eight of these coastal  
19 newspapers got no notice at all; eight of them, weekly  
20 papers, got it too late for last week; and it only  
21 was published yesterday for this meeting.

22 I'll end there. And I hope we can complete  
23 giving you the evidence why we believe this is an  
24 illegal and invalid meeting, as the 30th in Newport  
25 was.

33

1 COMMANDER KING: The next speaker is Darus  
2 Peake.

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3 MR. PEAKE: My name is Darus Peake, D-a-r-u-s  
4 P-e-a-k-e. Thank you for inviting us. We appreciate  
5 it.

6 My name is Darus Peake. I'm an attorney with  
7 the Oregon Salmon Commission and the Oregon Albacore  
8 Commission, an industry-funded state commodity. We  
9 represent approximately 1,400 vessels or 1,400 small  
10 businesses. Salmon and tuna are two of the most  
11 valuable fish on the Oregon coast and also the most  
12 sound and temperature sensitive. Fishermen will tell  
13 you that any sound created by a vessel will kill any  
14 biting and also drives fish from the area. We're  
15 talking about sounds caused by vibrations or other  
16 sounds generated by the boat.

17 In the past years we've used legal seal bombs  
18 that have been used offshore to keep the sea lions away  
19 from the vessel. You seal the bomb and detonate it in  
20 the water, it drove the fish from the area.

21 Our fish are also temperature sensitive, and  
22 will change the migratory pattern to follow such  
23 temperatures. We look at the internet and see where to  
24 change our fishing to follow for the ocean heat

25 patterns. If the Navy has that area closed and the

34

1 fish are migrating through that area, we will lose  
2 parts of our really short season. We only have a few  
3 days for our fishing season. Salmon is now counted in  
4 days. The Navy testing could have a serious effect on  
5 the economy, and we're worried about it.

6 Right now, after these meetings today, we  
7 found out that with no mortality rate being minimal, we  
8 can't condone this relationship. Thank you.

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9 COMMANDER KING: Thank you. And the next  
10 speaker is Rick Goche.

11 MR. GOCHE: I'm a commercial fisherman, my  
12 name is Rick Goche, G-o-c-h-e.

13 I'm a sheriff of the Oregon Outdoor  
14 Commission and I'm a member of the Southern Oregon  
15 Ocean Resource Council that is involved in the  
16 Territorial Sea Plan. The Oregon Outdoor Commission is  
17 charged with allocating for albacore, and those  
18 families and businesses that depend on them, the  
19 albacore.

20 As Darus mentioned, albacore and tuna are  
21 really sensitive to noise. I actually have an acoustic  
22 specialist come to my boat every year and test it to  
23 make sure it's not putting off noise that the albacore  
24 will be driven away from the boat by. Even a small  
25 noise, like he said, can shut off the bite.

35

1 So one of the -- one of the hopes that we  
2 would have is that if you are going to introduce  
3 surface or subsurface detonations, that you, in effect,  
4 fire a warning shot so that the area will clear itself  
5 from fish and sea life and that will help.

6 Some of the concerns that we have are the  
7 size of the operation of the area. The area of  
8 operation, if it's a very large area, that -- that  
9 we're going to ask that it be excluded. Like Darus  
10 said, the wrong time or place it can have a devastating  
11 impact on our economy and the families, et cetera. The  
12 length of time of the operation is also a concern.

13 And the lead time that we get -- get  
14 notification of the area. Many times we might be in

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15 rough weather that you guys can operate in, but we're  
16 shut down, we're dead in the water. We can't pick up  
17 and drive away, it's too dangerous, we can sink our  
18 boats. So that needs to be considered, too. If the  
19 operation comes into the area and we can't move, sorry.

20 We're also concerned about any intended use  
21 of the depleted uranium with the munitions being used  
22 in the area and the potential for impact on our  
23 livelihoods.

24 I also wanted to echo Ms. Buell's comments  
25 regarding coordinating with the different fisheries.

36

1 Every fishery has representation, like I represent the  
2 albacore fishery, Darus represents the salmon fishery.  
3 Each fishery has someone representing it that you --  
4 that you can interface with so you can know what is  
5 going to be happening in that area. We appreciate that  
6 cooperation.

7 So I don't have any illusions that the Oregon  
8 Albacore Fishery is going to boss the Navy around, but  
9 I would like you to consider the no-action option. I  
10 think that would be best for our fishery. Thank you.

11 COMMANDER KING: Thank you. And then the  
12 next speaker will be Frank Bohannon.

13 MR. BOHANNON: It's B-o-h-a-n-n-o-n.

14 Good evening. I'm kind of a semi-retired  
15 fisherman, but I've been a vessel owner and captain  
16 since 1962. I've fished on every ocean on the planet  
17 except for the Indian Ocean. I spent most of my time  
18 in the Bearing Sea, a lot of it off the West Coast,  
19 fished for almost all the fisheries, so I have some  
20 experience. And the one thing I'm concerned about is

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21 the whiting fish, one of the fisheries I helped  
22 pioneered in the late '70s.

23 Your area of operation takes up an awful lot  
24 of this coast, and I didn't think you realize that the  
25 whiting fishery starts in the spring somewhere around  
37

1 Fort Bragg, California -- and that's 40 North, 41  
2 North, I don't have a chart with me -- and goes clear  
3 to Cape Flattery, which is 48; from 25 fathoms, and  
4 that could be anywhere from two to ten miles off the  
5 coast, out to 400 fathoms.

6 And there is -- what that fleet includes is  
7 thirty-seven boats, 85 to 100 long, 150 long delivering  
8 to short plants. Another -- that is fifteen short  
9 plants from Eureka, Crescent City, Coos Bay, Newport,  
10 Columbia Ridge, and Westport. And it's twenty-four  
11 fishing vessels, same size, 85 to 150 feet delivering  
12 to the processors, the mother ship. There is five  
13 mother ships, they're 250 to 630 feet long. There is  
14 ten different processors, and they're 250 to 350. It's  
15 a total of ninety-one vessels with approximately 1,700  
16 personnel aboard. The shore plants have another 1,500  
17 people. These are all people in the coastal  
18 communities.

19 Most of the time the fishing is spread out  
20 and each individual fleet is working -- working  
21 together but spread out. There are other times that  
22 the fish are concentrated in one area and most of the  
23 fleet is on that spot.

24 When fishing, each individual fishing boat,  
25 whatever the size, has three times the depth of water  
38

1 they're fishing in and the amount of cable they have on  
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2 them. They also have a net that measures about 100,000  
3 feet. That translates, related here, to a value of up  
4 to one million bucks. This isn't just a part-time  
5 deal, it's a year-around operation. It is high end and  
6 costs a lot of money.

7 If you take a look at the diagram, we're  
8 operating vessels that are spread over a mile long,  
9 there is lots of fish. But they've got a mile here,  
10 and some of that gearing is worth a million bucks.  
11 And, of course, the vessel is worth quite a bit more.  
12 So it's pretty important fishing.

13 We took 270,000 tons of that fish last year,  
14 and the value of that was \$60 million. When you put  
15 the -- add the value to the process it was 250 million,  
16 and when you put the coastal multiplier on, and it's  
17 somewhere four to five billion dollars of value to this  
18 community.

19 The fishery is sensitive to loud detonations.  
20 I have personal experience. When we had oil  
21 exploration down here in the '60s, a lot of people  
22 claimed a lot of things were or weren't happening, but  
23 one thing is for sure, that detonation happened and  
24 that scattered the fish. I don't know how much it  
25 killed, I'm not here to talk about that. what it does  
39

1 do is spread that fish out and all of a sudden you've  
2 got a fleet that costs a lot of money to operate or  
3 having to go somewhere else.

4 I've got this written up if it will help.  
5 I'm not here to stop you, we need you, obviously. I'm  
6 a good American, love the Navy, but I think you've got  
7 to get a liaison to work with this fleet during the

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8 summertime, and not be doing this like you did the  
9 Santa Barbara channel and not being able to transit it.  
10 To use the vessels, you can't do it in a small lane.  
11 We cover a lot of space. There is other fish that I'm  
12 concerned about, too. I think that is the main one,  
13 and one of the most valuable in this coast, and  
14 something you should consider.

15 COMMANDER KING: Thank you. The next speaker  
16 will be Linda Parks.

17 MS. PARKS: L-i-n-d-a P-a-r-k-s.

18 Well, this is kind of new for me. But this  
19 is really important, I think. And as quite a few of  
20 the people have said before, our lifestyle and  
21 livelihoods are very, very fragile. And I can't see  
22 how this won't impact incredibly a lot. And I implore  
23 you to take the no-action. And I understand that --  
24 it's twelve miles out from the shore, and that's pretty  
25 close. And I gather that at this time most of the  
40

1 sonar is happening in California, and I would like to  
2 ask that that continue in California and our fish and  
3 sea life up here hopefully won't be impacted any more  
4 than they have been.

5 So I ask that you also consider our -- we're  
6 trying the Oregon Energy Camp plant out here, and  
7 please take that into consideration. That is very,  
8 very important for Oregon right now. And take the  
9 no-action plan, please. Thank you very much.

10 COMMANDER KING: Thank you. And the next  
11 speaker will be Dr. Bruce Mate.

12 MR. MATE: Good evening, Commander King,  
13 Captain David, Mr. Mosher.

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14 Thank you for returning to Oregon. We  
15 appreciate you being here and the serious nature of  
16 your business, all of us, and keeping us safe. And I  
17 want to assure you that we're very grateful for your  
18 honest opinion and paying attention to the  
19 environmental aspects of what you're doing.

20 I'm here as a private citizen today, but I  
21 have some credentials. I've been studying marine  
22 mammals here in Oregon for forty years. I direct the  
23 Oregon State University Marine Mammal Institute. I'm  
24 going to make a number of comments quickly and I'll be  
25 a little erratic. The 165 decimal level is the level<sup>41</sup>

1 at which the National Fisheries Service determines that  
2 about half the individuals will have a behavioral  
3 reaction and will have a detriment. Your signals are  
4 set at 235, seventy decimals above that. And, of  
5 course, we know that this is a long distance scale and  
6 we know that the animals are going to be right on top  
7 of this source.

8 It sounds like the 165 level most generally  
9 should be out there about two kilometers away. So some  
10 of the mediation that you have in place will be very  
11 helpful and others you may need a little more attention  
12 to, perhaps.

13 I'll make some specific suggestions. As I  
14 came tonight, I wondered why anybody might have  
15 predicted the impact on the harbor seal and the matter  
16 of similar impacts on shallow-water species which are  
17 harbor porpoises and sea lions. I must admit that the  
18 model is a bit daunting, even for me. And I can't  
19 imagine some of the other people struggling with it.

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20 What I learned this evening, actually, you  
21 use the randomizing process sort of sandwiched through  
22 the entire operation area, sort of a mathematical model  
23 to spread around where the operation may be at  
24 different times and places. And that in most cases you  
25 also considered marine mammals in the area. This is,<sup>42</sup>

1 of course, not a realistic aspect how your operations  
2 work with marine mammals. They are, in fact, sometimes  
3 passing your ships in time and space because of  
4 migrations. Your operations also are not uniform nor  
5 equally spread out, so I'd also have you give us the  
6 details that are blind to us, a realistic expectation  
7 of where you're going to do these things, and have you  
8 work through that model and give us a more realistic  
9 appraisal of what you think the impact is going to be,  
10 rather than give us something that we know is going to  
11 be strongly off balanced in character.

12 With regard to the detonations, we see  
13 fourteen animals may have a 50 percent tympanic  
14 membrane rupture. This is likely going to dramatically  
15 affect their ability to feed and forage effectively, if  
16 not their sounds and predators. Not that fourteen  
17 animals is a large number but I think we ought to be  
18 forthright in the EIS about communications and consider  
19 the effects. I think there are other areas in which  
20 Level A impacts may occur. I think we ought to make  
21 some of those observations as well.

22 When the table summarizes all this  
23 information and says "may effect," what does that  
24 really mean? I suspect there is no significant impact  
25 in population levels actually, but is it likely that  
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1 that doesn't mean it won't cost the individuals. And I  
2 think what we're looking at here is the baseline for  
3 the first time. We're looking at honestly trying to  
4 figure out what happens when you do the operations  
5 which you've been doing for a number of years. Even  
6 the Level 2 assessments you have here, the sonar  
7 operations will not change dramatically.

8           What we'd like to know, both historically,  
9 and when your operations are been going on, so we can  
10 look at correlations of things like stranding events,  
11 beached whales. We would also like to know a close  
12 period of time, if you can't tell us ahead of time,  
13 when you'll operate. We'd like to know as a scientific  
14 community and interested public when you're doing  
15 operations and when you've completed those so we can  
16 look at correlations and other events. Mind you, we  
17 know they're not cause and effect relationships,  
18 necessarily. This is the way science approaches the  
19 issue of what may or may not have effects on the  
20 wildlife.

21           With regard to detonation, I'd suggest that  
22 you spend a little more time looking at the area to  
23 ensure it's clear and that you actually spend some  
24 dedicated time on the active follow-up to see if  
25 animals appear in the area and particularly if their  
44

1 behavior is abnormal. It's those kind of recap  
2 assessments that are going to be important to us.

3           I'd like you to think seriously about this  
4 five-year authorization period of coming back with  
5 another EIS that provides us with an analysis of what

7 particularly, to share with the public, and have a  
8 better understanding of how your operations affect  
9 offshore issues.

10           When you have a chance, I hope you will  
11 possibly develop your technical protocols and training  
12 in areas where they have the least amount of impact. I  
13 recognize what you're doing is extremely important.  
14 Thank you.

15           COMMANDER KING: The next speaker will be  
16 Garet Lavheis.

17           MR. LAVHEIS: G-a-r-e-t L-a-v-h-e-i-s. I'm a  
18 scientist as well from Portland, Oregon, and I only  
19 found out about this a few days ago. I study  
20 vocalizations and acoustic communications in mice.

21           So I just want to bring up a few things that  
22 concern me a little bit. I certainly realize the  
23 importance of the work that you do, especially now with  
24 the two wars. But I think there are a couple things we  
25 should do with regard to the sonar. The level of

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1 sonar, the sound will be, what I understand, will be at  
2 140 decibels at about fifty-one to 130 kilometers out,  
3 that is about eighty miles. Eighty miles out, there is  
4 going to be a constant sound of about 140 decibels.

5           The reason I think that is important, is that  
6 if you look in your EIS in another place, you've got a  
7 very nice -- done a very nice job of the source level  
8 of sound coming from different species of marine  
9 mammals. And at the source when the sound is the  
10 loudest and they're emitting their vocalizations, their  
11 communication for collecting food, et cetera, this is

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12 about the same decibel.  
13 The way I read it here, we're talking for  
14 eighty miles in any direction, which is a lot more than  
15 twelve miles off the coast. This is a substantial  
16 amount of area. You're essentially flooding this area  
17 with constant sonar sound that is going to essentially  
18 wipe out communication between the species for an  
19 extended period of time: five, six, seven hundred  
20 hours, the time the sonar is going on in a given year.  
21 Again, I've only had a few hours to look at  
22 this environment impact statement because I just found  
23 out about this meeting. The concern is really simply  
24 that when humans interact, when we communicate, we're  
25 used to hearing sounds go up and down, and we're very  
46  
1 sensitive to the frequency at which we talk. If we  
2 were always being blasted, essentially, at levels  
3 equivalent to shouting at each other for several hours,  
4 I can't imagine that that would not have some pretty  
5 substantial impact on marine mammals. And I have no  
6 idea about fish. I think it's a valid question.  
7 I don't see anything addressed in this EIS  
8 about how this constant or mechanical sonar would  
9 essentially disrupt -- essentially -- we already know  
10 communications for these animals can be seen several  
11 tens of miles. To be giving such a loud sound  
12 essentially blanketing the whole region. Its got to  
13 have an effect.  
14 I know as a scientist that there is a lot  
15 more that we don't know than we do know. I think one  
16 thing we do is try to make the best judgment with the  
17 little bit of information we have. I think there is a

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18 fair amount here that we really don't know about what  
19 is going on. I think if we do this, there is a  
20 potential to disrupt things a lot more than what we  
21 think. So as much as I respect what the Navy is doing,  
22 I think that the no alternative to would be ideal  
23 because mostly because this would be a lot more  
24 disruption. I think scientists could adequately  
25 predict what would happen. Thank you very much, and  
47  
1 thanks for listening.  
2 COMMANDER KING: Thank you. And the next  
3 speaker will be Loren Goddard.  
4 MR. GODDARD: L-o-r-e-n G-o-d-d-a-r-d.  
5 Good evening. Thank you for giving us this  
6 opportunity to speak to you and let us know -- let you  
7 know what is on our minds.  
8 I represent a group from Depot Bay, the Depot  
9 Bay Near Shore Action Team. And we have recently  
10 finished conducting a number of public outreach  
11 meetings regarding a relatively small marine preserve  
12 proposal, a mere 731 acres. The public outreach that  
13 we did for that marine preserve, just the small city of  
14 Depot Bay, a couple thousand people, constituted four  
15 different public outreach meetings. I find it pretty  
16 amazing that the Navy schedules six public outreach  
17 meetings for something of this scope. And my feeling  
18 is that that is woefully inadequate.  
19 I've further had concerns given the nature of  
20 how the notification was handled regarding the  
21 meetings, that there may be a correlation between  
22 notice of these public outreach meetings and any notice  
23 of any information that may impact us. Thank you.

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24 COMMANDER KING: The next is Lars Robison.  
25 MR. ROBSON: My name is name is Lars Robison  
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1 I have a charter boat company in Depot Bay, Oregon, and  
2 we are involved in every fishery we can be from the  
3 tuna offshore to the halibut. And, as well, I make --  
4 probably over 50 percent of my business comes from  
5 whale watching, watching gray whales, orca whales, and  
6 on some great days, the humpback whales.  
7 And, of course, my concerns are for my  
8 company as well as the rest of the Depot Bay fleet,  
9 that we not be financially impacted by these Navy  
10 exercises out here. We have, of course, tuna fishing,  
11 halibut, salmon, rock fish, albacore. So I'd like to  
12 have the Navy be in touch with the Oregon Department of  
13 Fish and Wildlife and some of other local groups, Depot  
14 Bay Near Shore Action Team group, a fine committee out  
15 of Newport, Oregon. And we do have quite a few of  
16 them. The Fact Group, which is another coastal  
17 fisheries group, the Very Concerned Citizens of  
18 Tillamook County, they are all people in the mix, and  
19 be notified when you are doing these exercises.  
20 And also these groups are available to help  
21 you guys avoid impacts on the economics of the  
22 fishermen out here in the coastal waters as our tuna  
23 fish is generally from twelve miles out to, say, fifty  
24 to sixty miles. And, also, I'd probably -- I'm not a  
25 member of the Salty Dog Team here. But I know that  
49

1 there is a group -- a website, ifish.net -- which has a  
2 tremendous amount of sport fishermen, and the saltwater  
3 component of that is the Salty Dogs. They have quite a  
4 website or a blog that they readily give out  
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5 information to each other, it's quite a site and there  
6 is a -- I'm sure there will be a lot of comments on  
7 that as well.  
8 We'd like to help the Navy in any way we can  
9 to avoid impacts on fishing in this area. And we're  
10 available -- the Depot Bay Near Shore Action Team is  
11 available all the time under the auspices of the Depot  
12 Bay City Council in Depot Bay, Oregon. That is it.  
13 I'm worried about the impacts as well as the delayed  
14 impacts. That is all I have. Thank you.  
15 COMMANDER KING: Thank you very much. The  
16 next speaker is David Adams. Mr. Adams is apparently  
17 not here.  
18 Terry Thompson.  
19 MR. THOMPSON: Thanks for coming back to the  
20 Oregon coast. I addressed most of you in Newport and  
21 my comments were aimed at the safety issues that  
22 existed between submarine vessels and the offshore  
23 trawling industry.  
24 There have been several contacts over the  
25 years. I've had a chance to do some research into and  
50

1 I haven't been able to find that information. I'll try  
2 to in the future get information and pass it to one of  
3 you, from the insurance companies. There is no  
4 evidence that it was a U.S. Navy vessel, but there is  
5 evidence that these vessels had made contact with  
6 submarines.  
7 So in order to make this short, I tried to  
8 think about how we could minimize the potential  
9 conflicts that have existed in the past. And by doing  
10 that, I think by -- and you heard other fishing  
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11 organizations say that they're ready and willing to  
12 help you. After thinking about it for a while, it  
13 seems that Sea Grants around the United States has a  
14 pretty good knowledge of every fishery around the  
15 coastal United States. Seems that would be the natural  
16 contact point since Sea Grants is a federally managed  
17 organization.

18 Here on this coast, we have Heath Hildebrand  
19 which coordinates all of our commodity fishing and all  
20 the different fishing groups and is quite familiar with  
21 all the action committees. That would be the logical  
22 point of contact if somebody was to contact them to  
23 take this information, to learn about the fleet.

24 Then I think you need to come together, with  
25 probably Scott McClennen for Undersea Cable, Brad

51

1 Metzger from the trawlers organization, David Jenkins  
2 from Midwater Trawlers, maybe myself, to actually  
3 convene a meeting with a representative from the Navy  
4 to try to understand what we're doing. It's this  
5 understanding, this communication, which will minimize  
6 the potential damage to our vessels and conflicts with  
7 your operations.

8 We do not want to interfere with your  
9 operations, and I know for sure we absolutely don't  
10 want you to interfere with our operations. My comment  
11 is, that is how I would go about trying to solve a  
12 potential safety problem here. I don't think we  
13 require a lot of time on the Navy's part, but some  
14 development of coordination might help. Our industry  
15 will change, and if we have that coordination set up,  
16 we could show you how it was going to change so it may

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17 reduce any potential conflicts.

18 Thank you, again. Really, I never thought  
19 I'd see you in Oregon. I was worried about what had  
20 happened. I mean, it was a perception that the Navy is  
21 it might have tried to sneak one under us. I am  
22 absolutely convinced today that that is not the case.  
23 You had never tried to come to Oregon before. Since I  
24 represent Oregon citizens, it's a challenge to get  
25 people in the room. You don't realize how difficult it

52

1 is to get this roomful of people. Thank you.

2 COMMANDER KING: Just one more time, is David  
3 Adams here? That is the last card I have.

4 Is there anyone else who would like to make a  
5 statement at this time who has not had the opportunity  
6 to do so? We have a couple of minutes, is there anyone  
7 who has made a statement who would like to make a very  
8 brief second statement?

9 Ma'am, go ahead. If you could do it in five  
10 minutes or less.

11 MS. MILLS: Charlotte Mills from Tidewater,  
12 Oregon.

13 Just to briefly continue what I left off with  
14 a while ago. What our group in Oregon, has Lincoln  
15 County, has recommended to our congress people is that  
16 because these two meetings have not been in compliance  
17 with NEPA mandates, that the Navy reschedule three  
18 hearings in the state of Oregon as they scheduled in  
19 the state of Washington. Why they only scheduled one  
20 originally in this state, it's unknown. But those  
21 meetings should be correctly -- should be correctly  
22 given timely notice and copies of the environment

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23 impact statement should be available to them in a  
24 timely way.

25 Probably one of the most disturbing things<sup>53</sup>

1 that our group found out since the last meeting was, of  
2 this \$15 million lawsuit that the Navy has settled just  
3 last December in the state of California. Not for  
4 exactly these reasons, but for similar reasons of  
5 noncompliance. That is with citizens. And the Natural  
6 Resource Defense Council had settled with the Navy, \$15  
7 million. So we hope the Navy is not entertaining  
8 another false appearance in the state of Oregon for  
9 those reasons.

10 The last thing is, we don't hold the Navy  
11 personnel in Silverdale, Washington, altogether  
12 responsible for failing to notify the public or provide  
13 these impact statements. They hired a PR firm called  
14 Katz who has no Oregon office, they are in Seattle and  
15 California. And they have placed ads in the eight  
16 papers that did get notified only yesterday, so those  
17 ads appeared. So that PR firm obviously did not  
18 understand about the most basic Journalism 101,  
19 understand about weeklies, bi-weeklies, and daily  
20 newspaper deadlines.

21 The other thing we did bring up is about  
22 budget. Our group would like to know what the budget  
23 was for this extravagant posters, graphics, and  
24 brochures and why the ads in papers were so tiny. Then  
25 we'd like to know what the budget was for the eight-day<sup>54</sup>

1 excursion that nineteen presenters and panelists took  
2 from Oregon, Washington, and California, back again.

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3 More important, we asked at the last meeting, what does  
4 the budget the Navy proposes for this entire operation  
5 that the taxpayers -- and just this sort of  
6 interruption of economic chaos. We'd like those  
7 figures in about ten days. We've already prepared a  
8 freedom of information request to submit if we don't  
9 get some budget figures in ten days.

10 And, lastly, our group in Lincoln County sat  
11 around and talked about it and asked the question, If  
12 the Navy will be able to conduct activities and place  
13 installments safely and in compliance, if they'd not  
14 been able to simply notify the public of the hearing or  
15 provide copies of the environmental study. Thank you.

16 COMMANDER KING: Is there anyone else who  
17 would like to make a final statement, very briefly?

18 MR. MATE: I'll make this quite brief. Bruce  
19 Mate, again.

20 I noticed that under one of the tables  
21 3.9-113 in the last paragraph it said: Alternative to  
22 390 hours mostly new, high-frequency active sonar, not  
23 in the no-action, no Alternative 1 categories. So then  
24 it says: The high frequency and mid-frequency  
25 emissions were not included in the sonar modeling. So<sup>55</sup>

1 potential mammal exposures to these sources were not  
2 investigated. I can't think of a good reason why you  
3 wouldn't have estimated those in the appropriate  
4 places. So I think that is something that deserves  
5 attention in the final EIS.

6 And then, finally, for the offshore areas in  
7 the EIS, page 3.9.55, it says: For offshore areas,  
8 predicted species habitat models were built with

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9 sufficient numbers of sightings to estimate densities  
10 in the study area. which means it took into account  
11 the more abundant animals. A lot of the animals that  
12 are ESA listed or for which you have non-sufficient  
13 information, are some of the ones of greatest concern  
14 in some of the areas. These include beak whale  
15 species, false killer whales, animals that we don't  
16 know very much about.

17 For those, I guess, I'd like you to probably  
18 make a little more effort. I understand you worked  
19 closely with the National Fisheries Service gathering  
20 available information. But because some of these  
21 species tend to be a little more sensitive on the sonar  
22 issues, they'll probably be -- perhaps wind up coming  
23 to shore. Thank you.

24 COMMANDER KING: Thank you very much. With  
25 that, it's past 8:30, which is our ending time for  
56

1 tonight. That is going to conclude the verbal public  
2 comment period. I want to thank all of you for  
3 attending. Thank you very much.

4 (Public hearing adjourned at 8:40 p.m.)  
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1 AUTHENTICATION

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4 This is to certify that the foregoing  
5 transcription of the proceedings held for the Northwest  
6 Training Range Complex draft EIS on Thursday, February  
7 26, 2009, at 7:00 at the Tillamook County Fairgrounds,  
8 Tillamook, Oregon, is a true and correct transcript of  
9 said proceedings and the original thereof delivered to  
10 Katz & Associates.

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Katherine Shelley  
Oregon Shorthand Reporter  
and Notary Public

21 022609 navy hearing  
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022609 navy private comments 1

1 NORTHWEST TRAINING RANGE COMPLEX  
2 DRAFT ENVIRONMENTAL IMPACT STATEMENT/  
3 OVERSEAS ENVIRONMENTAL IMPACT STATEMENT

4  
5 PUBLIC HEARING  
6 AND  
7 PUBLIC COMMENT SESSION  
8

9 TRANSCRIPT OF PRIVATE COMMENTS  
10 Volume II --- Pages 1 - 11  
11

12 DATE: February 26, 2009

13 TIME: 7:00 - 8:30 p.m.

14 LOCATION: Tillamook County Fairgrounds  
15 Auditorium  
16 4603 E. 3rd Street  
Tillamook, Oregon 97141

17 MODERATOR: Commander Sherry King

18 COMMENTS BY: Charlotte Mills  
19  
20  
21  
22  
23

24 REPORTED BY:  
KATHERINE SHELLEY  
25 SHORTHAND REPORTER

2

1 TILLAMOOK, OREGON, FEBRUARY 26, 2009, 7:07 P.M.  
2

3 MS. MILLS: I am a member of a Lincoln County  
4 group who attended the January 30 public hearing in

022609 navy private comments  
5 Newport at the Hatfield Marine Science Center. Few showed  
6 up to that hearing, only fifteen or sixteen people  
7 actually stayed for the slide show and public comments.

8 Later, our group tracked down any public notice  
9 of the 30th meeting. We found that the paper listed by  
10 the Navy to have been notified was the Lincoln City News  
11 Guard. Their editor told us that they received no notice  
12 but found out about it five days after the 30th hearing on  
13 their own. Our group then called the Lincoln City Public  
14 Library where the Navy said they'd placed the two-volume  
15 copy of the environmental impact statement.

16 The librarian there had to look for it. He  
17 later called to say he found it in a box with no cover  
18 letter indicating it was time related. He later called to  
19 say it got cataloged and shelved on February 13, fifteen  
20 days after the Newport public hearing on January 30th.

21 Our group and others researched these issues.  
22 They contacted the Oregon Congressional Delegation in  
23 Washington D.C. asking for an extended public comment  
24 time. The Navy, then, did extend the comment time two  
25 times after receiving many citizens' contacts about the

3

1 nature of what the Navy is proposing in the Northwest  
2 Range Complex plan. This hearing was then scheduled at  
3 the request of representatives of the Oregon Congressional  
4 Delegation.

5 Our group has notified the Congressional people  
6 that we hold that neither the January 30 or this February  
7 26th hearing is valid. The Newport meeting, because the  
8 Navy failed to comply with NEPA requirements to notify the  
9 public in a timely way and because they failed to provide  
10 any library in Oregon with a copy of the environmental

Page 2

022609 navy private comments

11 impact statement to review as required by federal law.

12 And we also contacted the Washington Delegates  
13 that we believe this 26th hearing is also invalid. The  
14 Tillamook Headlight-Herald got notice late and was only  
15 able to publish notice of this meeting yesterday, on  
16 February 25th, not a timely notice.

17 And we contacted the Tillamook Library and got  
18 this story: They received the boxed, environmental  
19 impact, two-volume statement some time ago. But although  
20 the box was addressed to Tillamook, the cover letter was  
21 addressed to the Newport Public Library. So the local  
22 librarian dutifully sent it to the Newport Public Library,  
23 which now has two copies, while the Tillamook community  
24 has no copy of the environmental impact statement to read  
25 and review what the Navy proposes to install and

4

1 activities they plan to conduct off your section of the  
2 Oregon coast.

3 We understand that the Navy says it has notified  
4 forty-two papers in Oregon of this hearing. So we called  
5 all sixteen of the coastal papers located in our seven  
6 coastal counties. Here's the score: Five received no  
7 notice; eight received notice, but too late for last  
8 week's weekly editions. So eight papers published notice  
9 in yesterday's paper, the 25th, one day before this  
10 hearing. Two papers did not receive notice in time to  
11 publish on the 20th and the 24th.

12 Therefore, again, the Navy has failed to comply  
13 with the National Environmental Policy Act about informing  
14 the public of hearings in a timely way. Therefore, this  
15 hearing is not valid.

Page 3

022609 navy private comments

16 All this research indicates that the Navy agents  
17 in Silverdale, Washington, or their hired public affairs  
18 company, Katz, do not understand the most basic lesson  
19 learned in community colleges and university schools of  
20 journalism, that is to be well-informed about publication  
21 deadlines for weekly, bi-weekly, and daily papers. This  
22 is Journalism 101.

23 We recommended to the Congressional delegation  
24 that they require the Navy to schedule three more public  
25 hearings in Oregon -- perhaps at Tillamook, Newport, and

5

1 Coos Bay -- as they provided three locations for the state  
2 of Washington when Washington has half the coastline and  
3 half the coastal population and probably half the coastal  
4 fishing, crabbing, and seafood industries, as well as  
5 recreational businesses to be impacted by the Navy's  
6 proposed activities. We recommended for the Navy to  
7 correct and revise its environmental impact statement  
8 because our readers found old science in most references.  
9 We recommended that they hire independent marine  
10 scientists to revise the environmental impact statement  
11 rather than rehire the authors of the current statement,  
12 who were hired on assignment to show the Navy's plans to  
13 be safe and in compliance with federal law.

14 Something we haven't yet recommended to the  
15 Congressional people is to have the Navy provide them and  
16 our Oregon group with budget figures. Budget for the  
17 extravagant giant posters, graphics, and brochures, and  
18 postcards; budget for the Navy's eight-day excursion from  
19 Washington to Oregon and California on their first public  
20 hearing trip for travel, lodging, and meals. Most  
21 important, what the Navy's budget is for the proposed

Page 4

022609 navy private comments

22 installations and activities they have planned for the  
23 Northwest Range Complex here on the Washington, Oregon,  
24 and California coastline.

25 We need those budget figures in ten days. If

6

1 not received, we have prepared a Freedom of Information  
2 request to be submitted so the citizens of Washington,  
3 Oregon, and California can learn what the Navy's plan will  
4 cost. Thank you.

5

6

7 Survey of Oregon's sixteen coastal newspapers re  
8 February 26 public hearing in Tillamook, Oregon. Score:  
9 Five received no notice, eight received notice late, two  
10 ran on the 20th and 24th.

11 Astoria Daily Astorian. Notice arrived on  
12 February 24, so it appeared on page 3 that day because  
13 this paper is a daily. Public got a two-day notice.

14 Bandon Western World editor said they received  
15 no ad nor news release.

16 Brookings Curry Coastal Pilot editor received an  
17 earlier story from their Washington D.C. news service,  
18 WestCom, which ran on February 18, but it was on the March  
19 11 extension for public comment. No ad and no notice on  
20 February 26 hearing.

21 Coos Bay World editor said they got notice too  
22 late for their weekly deadline, February 18, so notice ran  
23 on February 25, one day before the 26th hearing.

24 Coquille Sentinel is located twenty miles from  
25 coast but has readership in that coastal area. Our group

7

Page 5

022609 navy private comments  
1 gave the name and location of this paper to Silverdale  
2 staff on their request weeks ago. No ad and no notice.

3 Florence Siuslaw News received sometime the week  
4 of February 16 or 23rd, but did not get published in  
5 either of their bi-weekly editions of Wednesday and  
6 Saturday. Staff not sure of receiving an ad when we  
7 called.

8 Gold Beach Curry County Reporter did receive a  
9 notice too late for their weekly edition of the 18th. Did  
10 publish notice on 25th, one day prior to 26th hearing.  
11 Lincoln City News Guard did receive notice too late for  
12 their Wednesday edition, February 18, did publish on 25th,  
13 one day before 26th hearing.

14 Newport News Times did receive notice in time  
15 for their Friday edition on February 20 so readers could  
16 have read of hearing six days before the 26th hearing.  
17 Newport is 100 miles from Tillamook and has little  
18 readership there, only in the library, perhaps.

19 Port Orford News editor reports receiving no ad  
20 or notice. Says he is ex-Navy vet and would like for Navy  
21 to put this paper on its print media list.

22 Reedsport Umpqua Post. Tried three times to  
23 contact this paper. Was unable to have answering service  
24 at office to ever answer.

25 Rogue River Press received no ad and no notice. 8

1 Seaside Sun received an ad notice on 20th, ran  
2 ad on 26th, one day before the 26th hearing. It was  
3 placed by the public relations company, Katz. Editor did  
4 not say a story was notified or run.

5 Tillamook Headlight-Herald received notice too  
6 late for their February 18th edition. Notice story ran in  
Page 6

022609 navy private comments

7 25th edition, one day before the 26th hearing. Contact  
8 could find no ad was sent or published.

9 Warrenton Columbia Press, located only sixty  
10 miles from Tillamook, but received no ad or notice.  
11 South Lincoln County News received notice too late for  
12 18th edition. Ran ad and notice in their 25th edition,  
13 one day before the 26th hearing.

14  
15  
16 Special report on how the environmental impact  
17 statement meant for Tillamook library was handled.  
18 Tillamook librarian, Sarah Beeler, explained that the  
19 two-volume EIS did arrive at the Tillamook Library some  
20 time ago. When she examined the container box and  
21 correspondence, she discovered that the cover letter was  
22 addressed to the Newport Public Library but the address on  
23 the box and letter showed the address for the Tillamook  
24 Public Library. Consequently, Beeler forwarded the box  
25 and correspondence on to the Newport Public Library. 9

1 A call to the Newport Public Library today,  
2 2/26/09, indicated that this library received a two-volume  
3 copy of the EIS some time ago and then received a second  
4 EIS just a few days ago. So the Newport Public library  
5 now has two copies and the Tillamook Public Library has no  
6 copy for public review. That means the Tillamook  
7 community, where the 26th hearing is taking place, has had  
8 no opportunity to examine or review the EIS.

9 Newport librarian reports the first copy is  
10 available at the reference desk, can be used but not taken  
11 out. The second EIS is being cataloged and shelved as

Page 7

12 022609 navy private comments  
13 soon as possible. The librarian is eager to know if they  
14 should send the second copy back to the Tillamook Library.

15 It appears that either the Silverdale Navy staff  
16 or their public affairs agency, Katz, failed to provide  
17 the Tillamook Library or that community with the EIS as it  
18 is believed they were required to do according to NEPA  
19 requirements.

20 This compounds the problem with the Navy's  
21 failure to notify the sixteen Oregon coastal newspapers in  
22 a timely way. Five received no notice. Nine received  
23 notice too late for their weekly deadline during the week  
24 of February 16. Two papers, the Astoria Daily Astorian  
25 and the Newport News Times, received notice in time for  
the Astorian's 24th edition and the News Times' Friday the <sup>10</sup>

1 20th edition. Reedsport Post responded to no calls.  
2 Consequently, eight of the nine coastal papers did publish  
3 the notice in their 25th editions. The Florence Siuslaw  
4 News evidently received the notice too late for their  
5 Wednesday or Friday papers during the week of the 16th,  
6 received notice sometime during the week of the 23rd, but  
7 failed to run the story in their 25th edition.

8 (Conclusion of private comments.)  
9  
10  
11  
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13  
14  
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022609 navy private comments

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11

1 AUTHENTICATION  
2

3 This is to certify that the foregoing  
4 transcription of the private comments portion of the  
5 public meeting held for the Northwest Training Range  
6 Complex draft EIS on Thursday, February 26, 2009, at 7:00  
7 at the Tillamook County Fairgrounds, Tillamook, Oregon, is  
8 a true and correct transcript of said proceedings and the  
9 original thereof delivered to Katz & Associates.  
10  
11  
12

13 \_\_\_\_\_  
14 Katherine Shelley  
15 Oregon Shorthand Reporter  
16 and Notary Public  
17  
18  
19  
20  
21  
22

# Regulatory Compliance Communications



**APPENDIX J:**  
**REGULATORY COMPLIANCE COMMUNICATIONS**

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National Historic Preservation Act Section 106 .....J-1  
Marine Mammal Protection Act .....J-5  
Endangered Species Act Section 7 .....J-59  
Coastal Zone Management Act.....J-84  
Essential Fish Habitat.....J-103





**DEPARTMENT OF THE NAVY**  
COMMANDER  
UNITED STATES PACIFIC FLEET  
250 MAKALAPA DRIVE  
PEARL HARBOR, HAWAII 96860-3131

IN REPLY REFER TO:  
5090  
Ser N01CEL/1210  
29 Oct 09

Allyson Brooks, PhD  
State Historic Preservation Officer  
Washington Department of Archaeology and Historic Preservation  
PO Box 48343  
Olympia, WA 98504-8343

SUBJECT: NATIONAL HISTORIC PRESERVATION ACT SECTION 106  
CONSULTATION AND REQUEST FOR CONCURRENCE FOR THE  
ONGOING AND PROPOSED USE OF THE NORTHWEST TRAINING  
RANGE COMPLEX

Dear Dr. Brooks:

In accordance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470f), and its implementing regulation, 36 CFR 800, the U.S. Navy would like to consult with your office regarding the current and proposed activities in the Northwest Training Range Complex (NWTRC). A copy of the Draft Environmental Impact Statement/Overseas Environmental Impact Statement (DEIS/OEIS) was sent to your office for review in late December 2008. We are providing your office with information about this project specific to cultural resources, the eligible and potentially eligible historic properties within the area of potential effect, and our determination of "No Adverse Effect" to comply with Section 106 regulations.

The NWTRC is the principle backyard training area for surface, submarine and aviation units located at Naval Air Station (NAS) Whidbey Island, Naval Station Everett, and Naval Base Kitsap, WA, in addition to supporting other local and non-resident users. The on-going training conducted in the NWTRC is necessary to achieve and maintain Fleet readiness, as articulated in the DEIS/OEIS.

The Navy utilizes the sea, air and land areas of the NWTRC for a variety of training activities, and has proposed to add and increase certain training activities within the complex to address future force structure changes. From the DEIS/OEIS, the Purpose and Need of Proposed Action is provided (Enclosure 1).

SUBJECT: NATIONAL HISTORIC PRESERVATION ACT SECTION 106  
CONSULTATION AND REQUEST FOR CONCURRENCE FOR THE  
ONGOING AND PROPOSED USE OF THE NORTHWEST TRAINING  
RANGE COMPLEX

The Area of Potential Effect (APE) for the proposed action has been identified as the NWTRC in its entirety, and consists of numerous training areas in the Pacific Northwest, including airspace, sea space, subsurface space, and land areas. The Range Complex includes ranges that extend westward in the Pacific Ocean to 250 nautical miles beyond the coast of Washington, Oregon, and Northern California and east to Idaho. The Proposed Action does not include any land-based or at-sea construction, modifications to existing Navy infrastructure, nor does it involve a geographic expansion of the existing NWTRC area. The NWTRC is further discussed and mapped in the DEIS/OEIS Description of Proposed Action and Alternatives (Enclosure 2).

Cultural resources are found throughout the project APE. Specific discussion of resources and potential effects to resources can be found in the Cultural Resources section of the DEIS/OEIS (Enclosure 3). Resources and sites in the APE located on land and shore areas throughout the NWTRC are discussed, as well as near shore submerged resources. Over 1300 shipwrecks and submerged aircraft are present along the Washington Coast and in Puget Sound. Additionally, potentially eligible and eligible properties are located within the installations of NAS Whidbey Island, Naval Magazine Indian Island, and Naval Base Kitsap. Distant offshore activities will have no adverse effect to submerged cultural resources; therefore deeply submerged resources in the NWTRC are not discussed. Cultural resources located under special use airspace are also not addressed, as there is no potential to affect potentially eligible historic properties in these areas.

The proposed action consists mainly of increasing the frequency of some currently conducted training activities within the NWTRC, some activities in fact decrease. Therefore the effects on eligible historic properties are anticipated to remain the same as they are presently. The potential effects consist of changes in the special distribution of artifacts from water movement, minor disturbances, compaction and erosion from helicopter landings and foot traffic, and fragments from expended training materials possibly settling on submerged historic properties. All of these would have a negligible effect on cultural resources, and would not alter the characteristics of any property to be eligible for inclusion on the National Register of Historic Places.

SUBJECT: NATIONAL HISTORIC PRESERVATION ACT SECTION 106  
CONSULTATION AND REQUEST FOR CONCURRENCE FOR THE  
ONGOING AND PROPOSED USE OF THE NORTHWEST TRAINING  
RANGE COMPLEX

Twenty one potentially effected Native American tribes in Washington State were notified of the proposed action and provided copies of the DEIS/OEIS for comment in December 2008, as documented in the enclosed Distribution List (Enclosure 4).

Following notification, six tribes have provided comments on the proposed action or contacted the Navy to arrange further meetings after receipt of the DEIS/OIES: Quinault Indian Nation; Hoh Tribe; Quileute Tribe, Makah Tribe, Suquamish Tribe, and Upper Skagit Tribe.

The comments received from the tribes focused on the following areas: Biological effects, effects on fishing, safety concerns, concerns about expended materials/hazardous wastes, and concerns about future Navy weapons systems and platforms. All comments received from the tribes were individually addressed in Appendix G of the DEIS/OEIS.

Since the potential effects to historic properties from the current and proposed activities within the NWTRC will not alter any characteristics which make the properties eligible for inclusion on the National Register, there is no adverse affect as defined in 36 CFR 800.5. The Navy would like to invite you to concur on our determination of "No Adverse Effect" by November 30, 2009.

If you have questions on this determination, please feel free to contact Mr. John Mosher at 360-257-3234, e-mail: john.g.mosher@navy.mil, or Ms. Kimberly Kler at 360-396-0927, e-mail: Kimberly.kler@navy.mil.

Sincerely,



D. A. McNAIR  
Captain, U.S. Navy  
Deputy Fleet Engineer  
By direction

- Enclosures: 1. NWTRC DEIS/OEIS Purpose and Need  
2. NWTRC DEIS/OEIS Description of Proposed Action  
3. NWTRC DEIS/OEIS Cultural Resources  
4. NWTRC DEIS/OEIS Distribution List



STATE OF WASHINGTON

**DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION**

1063 S. Capitol Way, Suite 106 • Olympia, Washington 98501  
Mailing address: PO Box 48343 • Olympia, Washington 98504-8343  
(360) 586-3065 • Fax Number (360) 586-3067 • Website: www.dahp.wa.gov

November 5, 2009

Captain D.A. McNair  
US Pacific Fleet  
250 Makalapa Drive  
Pearl Harbor, Hawaii 96860-3131

Re: NWTRC Program  
Log No: 092308-10-USN

Dear Captain McNair:

Thank you for contacting our department. We reviewed the materials you provided for the proposed Northwest Training Range Complex (NWTRC) Program in Washington.

We concur with your determination of No Adverse Effect.

We would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(a)(4).

These comments are based on the information available at the time of this review and on the behalf of the State Historic Preservation Officer in conformance with Section 106 of the National Historic Preservation Act and its implementing regulations 36CFR800. Should additional information become available, our assessment may be revised.

In the event that archaeological or historic materials are discovered during project activities, work in the immediate vicinity must stop, the area secured, and the concerned tribes and this department notified. Thank you for the opportunity to comment and a copy of these comments should be included in subsequent environmental documents.

Sincerely,



Robert G. Whitlam, Ph.D.  
State Archaeologist  
(360) 586-3080  
email: [rob.whitlam@dahp.wa.gov](mailto:rob.whitlam@dahp.wa.gov)

cc: D. Grant



Notification letters based on the sample letter that follows were delivered to the following Native American Tribes:

First Name	Last Name	Title	Organization	City	State
W. Ron	Allen	Chair	Jamestown S'Klallam Tribe	Sequim	WA
Diana	Barg	Cultural Resources Program Manager	Samish Indian Nation	Anacortes	WA
Janine	Bowechop	THPO Cultural Resources	Makah Tribe	Neah Bay	WA
Pat	Brown	Cultural Resources Manager & Historian	Stillaguamish Tribe	Arlington	WA
Henry	Cagey	Chair	Lummi Nation	Bellingham	WA
Larry	Campbell	Cultural Resources	Swinomish Tribe	LaConner	WA
Frances G.	Charles	Chair	Lower Elwha Klallam Tribe	Port Angeles	WA
Brian	Cladoosby	Chair	Swinomish Tribe	LaConner	WA
Earl	Davis	Cultural Resources Specialist	Shoalwater Bay Tribe	Tokeland	WA
Kathy	Duncan	Cultural Specialist	Jamestown S'Klallam Tribe	Sequim	WA
Kelly	Easter	THPO Cultural Resources	Lummi Nation	Bellingham	WA
Daki	Fisher	Chair	Hoh Indian Tribe	Forks	WA
Leonard	Forsman	Chairman	Suquamish Tribal Center	Suquamish	WA
Billy	Frank	Chair	Northwest Indian Fisheries Commission	Olympia	WA
Henry	Gobin	Cultural Resources Manager	Tulalip Tribes of Washington	Tulalip	WA
Mike	Grayum	Executive Director	Northwest Indian Fisheries Commission	Olympia	WA
Randy	Harder	Executive Director	Point No Point Treaty Council	Kingston	WA
Carol	Hatch	Chair	Quileute Tribe	LaPush	WA
Marie	Hebert	Cultural Resources Director	Port Gamble S'Klallam Tribe	Kingston	WA
Deanna	Hobson	Cultural Resources	Quileute Tribe	La Push	WA
Justine	James	Cultural Resource Protectionist	Quinault Indian Nation	Taholah	WA
Norma	Joseph	Director of Cultural Resources	Sauk-Suiattle Tribe	Darrington	WA
Sandy	Klineburger	Chair	Stillaguamish Tribe	Arlington	WA
Michael	Lawrence	Chair	Makah Tribe	Neah Bay	WA
Dennis	Lewarch	THPO Cultural Resources	Suquamish Tribal Center	Suquamish	WA
Jan	Mabee	Chair	Sauk-Suiattle Tribe	Darrington	WA
Charles "Guy"	Miller	Chair	Skokomish Tribal Nation	Skokomish	WA
Kris	Miller	THPO Cultural Resources	Skokomish Tribal Nation	Skokomish	WA
Joe	Mullen	Chair	Snoqualmie Indian Tribe	Snoqualmie	WA
Steve	Mullen	Cultural Resource Director/Tribal Historic Preservation Officer	Snoqualmie Indian Tribe	Snoqualmie	WA
Charlene	Nelson	Chair	Shoalwater Bay Tribe	Tokeland	WA
Scott	Schuyler	Cultural Resources Manager	Upper Skagit Tribe	Sedro Woolley	WA
Fawn	Sharp	Chair	Quinault Indian Nation	Taholah	WA
Melvin R.	Sheldon, Jr.	Chair	Tulalip Tribes of Washington	Tulalip	WA
Jeromy	Sullivan	Chair	Port Gamble S'Klallam Tribe	Kingston	WA
Lena	Tso	THPO Cultural Resources	Lummi Nation	Bellingham	WA
Jennifer	Washington	Chair	Upper Skagit Tribe	Sedro Woolley	WA
Larry	Wasserman	Director of Environmental Services	Skagit River Cooperative	La Conner	WA
William S.	White	Cultural Resources	Lower Elwha Klallam Tribe	Port Angeles	WA
Thomas	Wooten	Chair	Samish Indian Nation	Anacortes	WA



DEPARTMENT OF THE NAVY

COMMANDER  
UNITED STATES PACIFIC FLEET  
250 MAKALAPA DRIVE  
PEARL HARBOR, HAWAII 96860-3131

IN REPLY REFER TO:  
5090  
Ser N01CE1/1233  
4 Nov 09



SUBJECT: THE NATIONAL HISTORIC PRESERVATION ACT SECTION 106  
DETERMINATION FOR THE PROPOSED ACTIVITIES IN THE  
NORTHWEST TRAINING RANGE COMPLEX

Dear [REDACTED]:

In accordance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470f), and its implementing regulation, 36 CFR 800, the U.S. Navy would like to inform you of our determination of "No Adverse Effect" to historic properties from the proposed actions in the Northwest Training Range Complex (NWTRC). A copy of the Draft Environmental Impact Statement/Overseas Environmental Impact Statement (DEIS/OEIS) was sent to your office for review in late December 2008. We are providing your office with information about this project specific to cultural resources, the eligible and potentially eligible historic properties within the area of potential effect, and the documentation supporting our finding of "No Adverse Effect" to comply with Section 106 regulations.

The NWTRC is the principle backyard training area for surface, submarine and aviation units located at Naval Air Station (NAS) Whidbey Island, Naval Station Everett, and Naval Base Kitsap, WA, in addition to supporting other local and non-resident users. The on-going training conducted in the NWTRC is necessary to achieve and maintain Fleet readiness, as articulated in the DEIS/OEIS.

The Navy utilizes the sea, air and land areas of the NWTRC for a variety of training activities, and has proposed to add and increase certain training activities within the complex to address future force structure changes. From the DEIS/OEIS, the Purpose and Need of Proposed Action is provided (Enclosure 1).

SUBJECT: THE NATIONAL HISTORIC PRESERVATION ACT SECTION 106  
DETERMINATION FOR THE PROPOSED ACTIVITIES IN THE  
NORTHWEST TRAINING RANGE COMPLEX

The Area of Potential Effect (APE) for the proposed action has been identified as the NWTRC in its entirety, and consists of numerous training areas in the Pacific Northwest, including airspace, sea space, subsurface space, and land areas. The Range Complex includes ranges and special use airspace that extend westward in the Pacific Ocean to 250 nautical miles beyond the coast of Washington, Oregon, and Northern California and east to Idaho. The Proposed Action does not include any land-based or at-sea construction, modifications to existing Navy infrastructure, nor does it involve a geographic expansion of the existing NWTRC area. The NWTRC is further discussed and mapped in the DEIS/OEIS Description of Proposed Action and Alternatives (Enclosure 2).

Cultural resources are found throughout the project APE. Specific discussion of resources and potential effects to resources can be found in the Cultural Resources section of the DEIS/OEIS (Enclosure 3). Resources and sites in the APE located on land and shore areas throughout the NWTRC are discussed, as well as near shore submerged resources. Over 1300 shipwrecks and submerged aircraft are present along the Washington Coast and in Puget Sound. Additionally, potentially eligible and eligible properties are located within the installations of NAS Whidbey Island, Naval Magazine Indian Island, and Naval Base Kitsap. Distant offshore activities will have no adverse effect to submerged cultural resources, therefore deeply submerged resources in the NWTRC are not discussed. Cultural resources located under special use airspace are also not addressed, as there is no potential to affect potentially eligible historic properties in these areas.

The proposed action consists mainly of increasing the frequency of some currently conducted training activities within the NWTRC, some activities in fact decrease. Therefore the effects on eligible historic properties are anticipated to remain the same as they are presently. The potential effects consist of minor disturbances, changes in the spatial distribution of artifacts from water movement, compaction and erosion from foot traffic, and fragments from expended training materials possibly settling on submerged historic properties. These negligible effects will not alter the characteristics of the property that make them eligible for inclusion into the National Register of Historic Places, or the integrity of any such property, and are therefore not considered adverse as defined in 36 CFR 800.5.

SUBJECT: THE NATIONAL HISTORIC PRESERVATION ACT SECTION 106  
DETERMINATION FOR THE PROPOSED ACTIVITIES IN THE  
NORTHWEST TRAINING RANGE COMPLEX

I would like to inform you of the Navy's determination of "No Adverse Effect" to historic properties from the proposed activities within the NWTRC. If you have any questions or concerns regarding this determination for the proposed action, we ask that you communicate them to the Navy by November 23, 2009 to conclude the Section 106 process of the National Historic Preservation Act.

Points of contact for this information are Mr. John Mosher at 360-257-3234, e-mail: john.g.mosher@navy.mil, or Ms. Kimberly Kler at 360-396-0927, e-mail: kimberly.kler@navy.mil.

Sincerely,



D. A. McNAIR  
Captain, U.S. Navy  
Deputy Fleet Engineer  
By direction

Enclosures: 1. NWTRC DEIS/OEIS Purpose and Need  
2. NWTRC DEIS/OEIS Description of Proposed Action  
3. NWTRC DEIS/OEIS Cultural Resources



DEPARTMENT OF THE NAVY  
OFFICE OF THE CHIEF OF NAVAL OPERATIONS  
2000 NAVY PENTAGON  
WASHINGTON, DC 20350-2000

IN REPLY REFER TO

5090  
Ser N456P/8U158319  
16 October 2008

Mr. P. Michael Payne, Division Chief  
Permits, Conservation and Education Division  
Office of Protected Resources  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service (NMFS)  
B-SSMC3 Room 13822  
1315 East-West Highway  
Silver Spring, MD 20910-3282

Dear Mr. Payne,

In accordance with the Marine Mammal Protection Act, as amended and 50 CFR Part 216.106, the U.S. Navy requests a five-year Letter of Authorization (LOA) for the incidental take of marine mammals associated with the proposed training operations under Commander, U.S. Pacific Fleet, that occur within the established Northwest Training Range Complex (NWTRC).

The proposed action may expose certain marine mammals that may be present within the NWTRC to sound from hull-mounted mid- or high- frequency active sonar or to pressure from explosive sources during training activities. Enclosure (1) focuses on the specific information required by the National Marine Fisheries Service for consideration of an incidental take request.

We appreciate your continued support in helping the Navy to meet its environmental responsibilities. My staff point of contact for this action is Ms. Linda S. Petitpas at (703) 604-1233, or e-mail [Linda.petitpas@navy.mil](mailto:Linda.petitpas@navy.mil). Commander, U.S. Pacific Fleets' point of contact in this matter is Ms. Carolyn Winter, (360) 315-5092 or email [carolyn.winter@navy.mil](mailto:carolyn.winter@navy.mil).

Sincerely,

RONALD E. TICKLE  
Head, Operational Environmental  
Readiness and Planning Branch  
Environmental Readiness Division  
(OPNAV N45)

Enclosure:

- (1) Request for Letter of Authorization for the Incidental Harassment of Marine Mammals Resulting from the Navy Training Activities Conducted Within the Northwest Training Range Complex (September 2008) delivered via FedEx under separate cover on 3 Sep 08.

Copy to (w/o enclosure):

DASN (E)  
CPF N01CE  
OPNAV N43  
ASN (I&E)

**Wauer, Brian D**

**From:** Petitpas, Linda S. CIV (OPNAV CNO) [linda.petitpas@navy.mil]  
**Sent:** Wednesday, November 05, 2008 7:20 AM  
**To:** Jolie.Harrison@noaa.gov  
**Cc:** Petitpas, Linda S. CIV (OPNAV CNO); Peters, Agnes CIV; Kler, Kimberly H CIV NAVFAC NW, EV1; Winters, Carolyn L CIV COMPACFLT, N01CE1CW  
**Subject:** FW: NWTRC - Replacement Pages for LOA  
**Attachments:** NWTRC LOA V4 10-8-08 track changes.pdf

**Importance:** High

Jolie,  
CPF identified some corrections that are required in the NWTRC LOA application. The track changes version here provides changes in harassment numbers as presented in Chapter 6. Navy would prefer that the corrected pages be inserted in the document posted on NMFS website when the NOR is issues. If this is acceptable to you, CPF has also provided the ftp site information where a completed Word version is available for you to download.

I have reviewed the changes and support the updated version.

This fell through the cracks in my inbox with everything else going on - my fault. Please let me know if this version can be used for the NOR. Thanks in advance.

Linda  
Linda S. Petitpas  
Chief of Naval Operations (CNO)  
Environmental Readiness (N45)  
2511 Jefferson Davis Highway  
Suite 2000  
Arlington, VA 22202  
Phone: 703-604-1233  
Fax: 703-602-2676  
e-mail: linda.petitpas@navy.mil  
SIPRNET: n45msg.fct@navy.smil.mil

-----Original Message-----  
From: Wauer, Brian [mailto:Brian.Wauer@wg.srs.com]  
Sent: Friday, October 24, 2008 14:18  
To: Petitpas, Linda S. CIV (OPNAV CNO); Winters, Carolyn L CIV COMPACFLT, N01CE1CW  
Cc: Peters, Agnes CIV; Phelps, Elizabeth I CIV OPNAV; Rios, Jorge P (Pat) CAPT COMPACFLT; Foster, Larry M CIV (CPF N01CE1); Diersing, Jere CIV NAVFAC SW, 09C; Eldredge, Daniel E CDR COMPACFLT N01CE1DE; Vavra, Randy LCDR COMPACFLT N01CE1RV; Kler, Kimberly H CIV NAVFAC NW, EV1; Johnson, Chip CIV COMPACFLT N01CE1CJ; Sheehan, Neil A CTR COMPACFLT N01CE1NS; ffc.record FLTFORCOM ADMINISTRATIVE RECORD REPOSITORY; ffc.record FLTFORCOM ADMINISTRATIVE RECORD REPOSITORY  
Subject: RE: NWTRC - Replacement Pages for LOA

Linda,

Same file I sent to Winters. See if this works when it's by itself.

- Brian

Brian Wauer  
SRS - Parsons Joint Venture  
440 Stevens Avenue Suite 200  
Solana Beach, CA 92075  
brian.wauer@mantech.com  
Phone: (858) 345-1947  
Cell: (619) 952-0301  
Fax: (858) 345-1959

-----Original Message-----  
From: Petitpas, Linda S. CIV (OPNAV CNO) [mailto:linda.petitpas@navy.mil]  
Sent: Friday, October 24, 2008 11:06 AM  
To: Wauer, Brian; Winters, Carolyn L CIV COMPACFLT, N01CE1CW  
Cc: Peters, Agnes CIV; Phelps, Elizabeth I CIV OPNAV; Rios, Jorge P (Pat) CAPT COMPACFLT; Foster, Larry M CIV (CPF N01CE1); Diersing, Jere CIV NAVFAC SW, 09C; Eldredge, Daniel E CDR COMPACFLT N01CE1DE; Vavra, Randy LCDR COMPACFLT N01CE1RV; Kler, Kimberly H CIV NAVFAC NW, EV1; Johnson, Chip CIV COMPACFLT N01CE1CJ; Sheehan, Neil A CTR COMPACFLT N01CE1NS; ffc.record FLTFORCOM ADMINISTRATIVE RECORD REPOSITORY; ffc.record FLTFORCOM ADMINISTRATIVE RECORD REPOSITORY  
Subject: RE: NWTRC - Replacement Pages for LOA

Brian,  
It didn't work for me. Please resend.  
Linda

-----Original Message-----  
From: Wauer, Brian [mailto:Brian.Wauer@wg.srs.com]  
Sent: Friday, October 24, 2008 13:04  
To: Petitpas, Linda S. CIV (OPNAV CNO); Winters, Carolyn L CIV COMPACFLT, N01CE1CW  
Cc: Peters, Agnes CIV; Phelps, Elizabeth I CIV OPNAV; Rios, Jorge P (Pat) CAPT COMPACFLT; Foster, Larry M CIV (CPF N01CE1); Diersing, Jere CIV NAVFAC SW, 09C; Eldredge, Daniel E CDR COMPACFLT N01CE1DE; Vavra, Randy LCDR COMPACFLT N01CE1RV; Kler, Kimberly H CIV NAVFAC NW, EV1; Johnson, Chip CIV COMPACFLT N01CE1CJ; Sheehan, Neil A CTR COMPACFLT N01CE1NS; ffc.record FLTFORCOM ADMINISTRATIVE RECORD REPOSITORY; ffc.record FLTFORCOM ADMINISTRATIVE RECORD REPOSITORY  
Subject: RE: NWTRC - Replacement Pages for LOA

Linda,

We've had this problem. Try closing the files and opening the one that says track changes again. Seemed to work for everyone else the second time they opened it.

- Brian

Brian Wauer  
SRS - Parsons Joint Venture  
440 Stevens Avenue Suite 200  
Solana Beach, CA 92075  
brian.wauer@mantech.com  
Phone: (858) 345-1947  
Cell: (619) 952-0301  
Fax: (858) 345-1959

-----Original Message-----  
From: Petitpas, Linda S. CIV (OPNAV CNO) [mailto:linda.petitpas@navy.mil]  
Sent: Friday, October 24, 2008 10:01 AM

To: Winters, Carolyn L CIV COMPACFLT, N01CE1CW  
Cc: Peters, Agnes CIV; Phelps, Elizabeth I CIV OPNAV; Rios, Jorge P (Pat) CAPT COMPACFLT;  
Foster, Larry M CIV (CPF N01CE1); Diarsing, Jere CIV NAVFAC SW, 09C; Eldredge, Daniel E CDR  
COMPACFLT N01CE1DE; Vavra, Randy LCDR COMPACFLT N01CE1RV; Kler, Kimberly H CIV NAVFAC NW,  
EV1; Johnson, Chip CIV COMPACFLT N01CE1CJ; Wauer, Brian; Sheehan, Neil A CTR COMPACFLT  
N01CE1NS; ffc.record FLTFORCOM ADMINISTRATIVE RECORD REPOSITORY; ffc.record FLTFORCOM  
ADMINISTRATIVE RECORD REPOSITORY  
Subject: RE: NWTRC - Replacement Pages for LOA

Carolyn,  
The track changes did not make it into the pdf version. Please provide a track changes  
version that I can view quickly to see the changes. Thanks in advance.

Linda

-----Original Message-----

From: Winters, Carolyn L CIV COMPACFLT, N01CE1CW  
Sent: Wednesday, October 22, 2008 20:01  
To: Petitpas, Linda S. CIV (OPNAV CNO)  
Cc: Peters, Agnes CIV; Phelps, Elizabeth I CIV OPNAV; Rios, Jorge P (Pat) CAPT COMPACFLT;  
Foster, Larry M CIV (CPF N01CE1); Diarsing, Jere CIV NAVFAC SW, 09C; Eldredge, Daniel E CDR  
COMPACFLT N01CE1DE; Vavra, Randy LCDR COMPACFLT N01CE1RV; Kler, Kimberly H CIV NAVFAC NW,  
EV1; Johnson, Chip CIV COMPACFLT N01CE1CJ; 'Brian.Wauer@wg.srs.com'; Sheehan, Neil A CTR  
COMPACFLT N01CE1NS; ffc.record FLTFORCOM ADMINISTRATIVE RECORD REPOSITORY; ffc.record  
FLTFORCOM ADMINISTRATIVE RECORD REPOSITORY  
Subject: RE: NWTRC - Replacement Pages for LOA

Linda:

Request your support to determine whether NMFS (Jolie) will accept the attached replacement  
pages for the NWTRC LOA, before the NOR is issued (also attached is a track changes version  
so you can see what the edits are). If Jolie will accept these, we can forward a complete  
.pdf file of the updated LOA immediately to you/her.

The changes are necessary due to the additional MFAS hours from the portable undersea  
tracking range (PUTR), one of the NWTRC range enhancements. These page changes (14 pages,  
double sided) amend the tables and discussion of take numbers due to a 10% increase in MFAS  
sonar hours over what was initially reported in the LOA. Our intention is that NMFS can print  
out and do a page-for-page replacement.

Please let me know if you have any questions or if we need to send the entire .pdf file of  
the updated LOA.

As usual, appreciate all your support.

Vr

Carolyn

NW TRAINING RANGE COMPLEX ADMINISTRATIVE RECORD ##CODE.NW TRAINING RANGE COMPLEX.AR##

-----Original Message-----

From: Winters, Carolyn L CIV COMPACFLT, N01CE1CW  
Sent: Tuesday, October 07, 2008 11:04  
To: Petitpas, Linda S. CIV (OPNAV CNO)

3

Cc: Peters, Agnes CIV; Phelps, Elizabeth I CIV OPNAV; Rios, Jorge P (Pat) CAPT COMPACFLT;  
Foster, Larry M CIV (CPF N01CE1); Diarsing, Jere CIV NAVFAC SW, 09C; Eldredge, Daniel E CDR  
COMPACFLT N01CE1DE; Vavra, Randy LCDR COMPACFLT N01CE1RV; Kler, Kimberly H CIV NAVFAC NW,  
EV1; Johnson, Chip CIV COMPACFLT N01CE1CJ; Brian.Wauer@wg.srs.com; ffc.record FLTFORCOM  
ADMINISTRATIVE RECORD REPOSITORY; ffc.record FLTFORCOM ADMINISTRATIVE RECORD REPOSITORY  
Subject: RE: NWTRC - Replacement Pages for LOA

Linda:

Good morning!

I need to get your advice on how you want us to proceed on updating our LOA.

We have changes to the acoustics effects modeling results due to the inclusion of the  
portable undersea tracking range (PUTR) as a range enhancement in our Preferred Alternative.

The PUTR use causes an annual 10% increase in ship MF sonar hours and subsequently an annual  
10% increase in Level B exposures from sonar. There is no change to mortalities (remains at  
zero) and Level A (remains at one).

Would you be able to speak to Jolie about the status of publishing the NOR and give us  
direction on proceeding? If we can submit replacement pages (vice an addendum post NOR),  
then we can get that to you via email this week.

Appreciate it!

Vr

Carolyn

NW TRAINING RANGE COMPLEX PROJECT FILE  
##CODE.NW TRAINING RANGE COMPLEX.PF##

-----Original Message-----

From: Petitpas, Linda S. CIV (OPNAV CNO)  
Sent: Wednesday, October 01, 2008 6:16  
To: Winters, Carolyn L CIV COMPACFLT, N01CE1CW  
Cc: Peters, Agnes CIV; Phelps, Elizabeth I CIV OPNAV; Rios, Jorge P (Pat) CAPT COMPACFLT;  
Foster, Larry M CIV (CPF N01CE1); Diarsing, Jere CIV NAVFAC SW, 09C; Eldredge, Daniel E CDR  
COMPACFLT N01CE1DE; Vavra, Randy LCDR COMPACFLT N01CE1RV; Kler, Kimberly H CIV NAVFAC NW,  
EV1; Johnson, Chip CIV COMPACFLT N01CE1CJ; Petitpas, Linda S. CIV (OPNAV CNO)  
Subject: RE: NWTRC - Any Feedback to Date on NWTRC LOA Application?

Carolyn,

The publication date of 17 Oct 08 was based on delivery of the document to NMFS on 26 Aug 08.  
The document was not delivered to NMFS until 2 Sep 08, therefore, I would not anticipate NMFS  
to provide the Notice of Receipt until 24 Oct 08. However, I have not heard anything on the  
subject from NMFS.

Linda

-----Original Message-----

From: Winters, Carolyn L CIV COMPACFLT, N01CE1CW  
Sent: Tuesday, September 30, 2008 19:29  
To: Petitpas, Linda S. CIV (OPNAV CNO)

4

Cc: Peters, Agnes CIV; Phelps, Elizabeth I CIV OPNAV; Rios, Jorge P (Pat) CAPT COMPACFLT; Foster, Larry M CIV (CPF N01CE1); Diersing, Jere CIV NAVFAC SW, 09C; Eldredge, Daniel E CDR COMPACFLT N01CE1DE; Vavra, Randy LCDR COMPACFLT N01CE1RV; Kler, Kimberly H CIV NAVFAC NW, EV1; Johnson, Chip CIV COMPACFLT N01CE1CJ  
 Subject: NWTRC - Any Feedback to Date on NWTRC LOA Application?

Linda:

With the NWTRC target LOA Federal Register publication date just a few weeks away (17 Oct 08), I am just curious if you have heard from or gotten any feedback from Jolie at all?

Thanks!

Carolyn

NW TRAINING RANGE COMPLEX ADMINISTRATIVE RECORD ##CODE.NW TRAINING RANGE COMPLEX.AR##

**Table ES-1. Summary of the physiological effects thresholds for TTS and PTS for cetaceans and pinnipeds (SONAR Exposure).**

Physiological Effects			
Animal	Criteria	Threshold (re 1μPa <sup>2</sup> -s)	MMPA Effect
Cetaceans	TTS	195	Level B Harassment
	PTS	215	Level A Harassment
<b>Pinnipeds</b>			
Northern Elephant Seal	TTS	204	Level B Harassment
	PTS	224	Level A Harassment
Pacific Harbor Seal	TTS	183	Level B Harassment
	PTS	203	Level A Harassment
California Sea Lion	TTS	206	Level B Harassment
	PTS	226	Level A Harassment
Steller Sea Lion	TTS	206	Level B Harassment
	PTS	226	Level A Harassment
Northern Fur Seal	TTS	206	Level B Harassment
	PTS	226	Level A Harassment

The analysis used to estimate the number of marine mammals that could be exposed annually by Navy training to the portion of the MMPA Level B harassment from the risk function will overestimate the number of potential exposures. This is due to the conservative assumptions used in the modeling. Post modeling analysis is undertaken to increase the accuracy of the estimate and includes reducing acoustic footprints where they encounter land masses (land mass elimination), accounting for acoustic footprints for sonar sources that overlap to accurately sum the total area when multiple ships are operating together (correction for multiple ships), and to better account for the maximum number of individuals of a species that could potentially be exposed to sonar within the course of one day or a discreet continuous sonar event (exercise reset times and density dilution). In addition, the Navy routinely employs a number of mitigation measures, outlined in Chapter 11, which will substantially decrease the number of animals potentially exposed and affected by high levels of sonar sound, however, a reduction in the potential number of marine mammals exposed as a result of these mitigation measures is not factored into the quantification of exposures as presented below.

The acoustic modeling estimates that ~~129,111~~ marine mammals will be exposed annually to levels of mid-frequency active (MFA) or high-frequency active (HFA) sonar that will result in MMPA Level B harassment. The risk function and Navy post-modeling analysis (exercise reset times, density dilution, land mass elimination, and correction for multiple ships) estimate that of these exposures, ~~128,583~~ animals will exhibit behavioral responses that NMFS will classify as MMPA Level B harassment from non-TTS. Additionally, ~~528~~ of these annual exposures will exceed the threshold for TTS. The modeling estimates one exposure to the harbor seal, which may be exposed annually to sound levels that may exceed the threshold for permanent threshold shift (MMPA Level A harassment).

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The potential explosive exposures outlined in Chapter 6 represent the maximum expected number of cetaceans and pinnipeds that could be affected from underwater explosives for mine countermeasures (MCMs), bombing exercises (BOMBEX), gunnery exercises (GUNEX), and ship sinking exercises (SINKEX). For underwater detonations, the dual criteria threshold for

potential Level B harassment is at 182 dB re 1  $\mu\text{Pa}^2$ -s or at 23 pounds per square inch (psi). For dual criteria, the criteria resulting in the greatest number of exposures is used. Level A thresholds are 50 percent tympanic membrane rupture, onset of slight lung injury at 205 dB or 13 psi-ms. In addition to Level A and B harassment is the onset of extensive lung injury and mortality at a threshold of 31 psi-ms. For multiple successive explosions potentially occurring during BOMBEX, SINKEK, and GUNEX (when using other than inert weapons), the acoustic criterion for a sub-TTS behavioral disturbance is used to account for behavioral effects significant enough to be judged as harassment, but occurring at lower sound energy levels that may cause TTS. The sub-TTS threshold is 177 dB re 1  $\mu\text{Pa}^2$ -s for multiple successive explosions.

Modeling estimates that 459 marine mammals may be exposed to pressure from explosive sources that could cause Level B harassment; 262 sub-TTS exposures and 197 exceeding 182 dB re 1  $\mu\text{Pa}^2$ -s or 23 psi). An additional 12 are predicted to be exposed to pressures that would cause injury (Level A harassment), and no marine mammals are predicted to be exposed to pressures that could cause severe injury or mortality. However, given range clearance procedures and standard mitigation measures, the Navy believes that in actuality, there will be no injuries resulting from these activities.

As with the acoustic impacts from sonar activities, the conservative analysis used to estimate the maximum number of marine mammals that could be affected by Navy activities will overestimate the potential number of exposures and their severity. In addition, the Navy routinely employs a number of mitigation measures, outlined in Chapter 11, which the Navy believes will substantially decrease the number of animals potentially affected.

Level B harassment in the context of military readiness activities is defined by the National Defense Authorization Act (NDAA) for Fiscal Year 2004 (Public Law 108-136) as any act that disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering to a point where such behavioral patterns are abandoned or significantly altered. This estimate of total predicted marine mammal sound exposures potentially constituting MMPA Level B harassment is presented without consideration of standard protective operating procedures. In addition, the assessment of whether temporary physiological effects or behavioral responses may cause behavioral patterns to be abandoned or significantly altered must be considered in the context of an analytical framework for active sonar. This framework acknowledges that only a subset of exposures are likely to result in MMPA Level B harassment, and that multiple exposures of the same individual will have a higher likelihood of disturbance than single exposures. All predicted acoustic exposures are presented in this analytical framework to support NMFS assessment of those exposures that may result in MMPA Level B harassment.

Based on the long history of conducting these ongoing activities using the same basic equipment in the same general areas for decades without any indications of effects to marine mammals (e.g. Hawaii and Southern California Range Complexes), the incidental harassment of marine mammals associated with the proposed Navy action will have no more than negligible impacts on marine mammal species or stocks. For species listed and protected under the Endangered Species Act (ESA), modeling estimates that seven species may be exposed to sound levels that may cause a behavioral response or reach the threshold for TTS and that may affect these species (384 exposures to sonar, and 52 exposures to explosions). The ongoing ESA Section 7 consultation will examine the anticipated responses and any associated fitness consequences for

Deleted: 350  
Deleted: explosions  
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## 6.6 Estimated ASW Effects on Marine Mammals

### 6.6.1 Model Results Explanation

Acoustic exposures are evaluated based on their potential direct effects on marine mammals, and these effects are then assessed in the context of the species biology and ecology to determine if there is a mode of action that may result in the acoustic exposure warranting consideration as a harassment level effect.

It is estimated that 129,111 marine mammals will exhibit responses NMFS will classify as behavioral harassment (MMPA Level B) as a result of MFA/HFA sonar use (128,583 using the Risk Function and 528 from TTS). One marine mammal (harbor seal) will be exposed to sonar in excess of permanent threshold shift (PTS) threshold indicative of MMPA Level A harassment. The modeled sonar exposure numbers by species are presented in Table 6-7.

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The modeling indicates 262 annual exposures (Table 6-8) to pressure or acoustics from explosive sources that could result in a sub-TTS behavioral response (threshold of 177 dB re 1  $\mu\text{Pa}^2$ -s) and 197 that could cause TTS (threshold of 182 dB re 1  $\mu\text{Pa}^2$ -s or 23 psi). The total number of exposures from explosives that NMFS would classify as MMPA Level B harassment would be 459. Modeling indicates 12 exposures from explosive sources that could cause slight injury, resulting in MMPA Level A harassment and no exposures causing mortality.

These exposure modeling results are estimates of marine mammal sonar exposures without consideration of standard mitigation and monitoring procedures. The implementation of the mitigation and monitoring procedures, as addressed in Chapter 11, will minimize the potential for marine mammal exposures to MFA and HFA sonar.

A large body of research on terrestrial animal and human response to airborne sound exists, but results from those studies are not readily applicable to the development of behavioral criteria and thresholds for marine mammals. Differences in hearing thresholds, dynamic range of the ear, and the typical exposure patterns of interest (e.g., human data tend to focus on 8-hour-long exposures), and the difference between acoustics in air and in water make extrapolation of human sound exposure standards inappropriate.

Behavioral observations of marine mammals exposed to anthropogenic sound sources exists, however, there are few observations and no controlled measurements of behavioral disruption of cetaceans caused by sound sources with frequencies, waveforms, durations, and repetition rates comparable to those employed by the tactical sonars described in this EIS/OEIS (Deecke 2006) or for multiple explosives. Controlled studies in the laboratory have been conducted to determine physical changes (TTS) in hearing of marine mammals associated with sound exposure (Finneran et al. 2001, 2003, 2005). Research on behavioral effects has been difficult because of the difficulty and complexity of implementing controlled conditions.

At the present time there is no general scientifically accepted consensus on how to account for behavioral effects on marine mammals exposed to anthropogenic sounds including military sonar and explosions (National Research Council [NRC] 2003, 2005). While the first elements in Figure 6-9 can be easily defined (source, propagation, receiver) the remaining elements (perception, behavior, and life functions) are not well understood given the difficulties in studying marine mammals at sea (NRC 2005). The NRC (2005) acknowledges "there is not one case in which data can be integrated into models to demonstrate that noise is causing adverse effects on a marine mammal population."

currently no information to suggest that if an animal has PTS, it decreases the survival rate or reproductive fitness of that animal. The distance to PTS from a MFA sonar's 235 dB source level one second ping is approximately 33 ft. (10 m) from the bow of the ship under nominal oceanographic conditions.

**6.6.1.4 Population Level Effects**

Some NWTRC training activities will be conducted in the same general areas, so marine mammal populations could be exposed to repeated activities over time. This does not mean, however, that there will be a repetition of any effects given the vast number of variables involved. The acoustic analyses assume that short-term non-injurious sound levels predicted to cause TTS or temporary behavioral disruptions qualify as Level B harassment from TTS. However, it is unlikely that most behavioral disruptions or instances of TTS will result in long-term significant effects. Mitigation measures reduce the likelihood of exposures to sound levels that would cause significant behavioral disruption (the higher levels of 7-9 in Figure 6-10), TTS or PTS. Based on modeling the Navy has estimated that ~~129,111~~ marine mammals per year might be exposed to activities that NMFS would consider Level B harassment under MMPA (risk function [or non-TTS] and TTS from active sonar) as a result of the Proposed Actions. The Navy does not anticipate any indirectly caused mortality to result from the Proposed Actions. It is unlikely that the short term behavioral disruption would adversely affect the species or stock through effects on annual rates of recruitment or survival.

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**6.6.2 Summary of Potential Mid or High-Frequency Acoustic Event Effects**

Table 6-6 represents the number of sonar hours, dipping sonar, or sonobuoys usage per year from different sonar sources including the AN/SQS-53C and AN/SQS-56C surface ships sonars, the AN/AQS-22 helicopter dipping sonar, the AN/SSQ-62 DICASS sonobuoy, and the MK-48 torpedo sonar.

Table 6-6: Number of Passive and Active Sonar Events in the NWTRC.

Warfare Area	Ordnance	Number of Annual Events
	SSQ-36 BT Sonobuoy	302
Antisubmarine Warfare Tracking Exercise – Maritime Patrol Aircraft	SSQ-53 DIFAR Passive Sonobuoy	6,618
	SSQ-62 DICASS Active Sonobuoy	886
	SSQ-77 VLAD Passive Sonobuoy	412
Antisubmarine Warfare Tracking Exercise - Extended Echo Ranging (EER)	SSQ-77 Passive Sonobuoy	241
Antisubmarine Warfare Tracking Exercise - Surface Ships	Hull-mounted Mid-frequency Active Sonar	<del>108</del> hours
Antisubmarine Warfare Tracking Exercise - Submarine	Hull-mounted Mid-frequency Active Sonar	0 hours
Intelligence, Surveillance, and reconnaissance (ISR).	SSQ-53 DIFAR Passive Sonobuoy	1,043

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Table 6-7 presents a summary of the estimated marine mammal exposures for potential non-injurious (MMPA Level B) harassment, as well as potential onset of injury (MMPA Level A) to cetaceans and pinnipeds. It is estimated that ~~129,111~~ marine mammals will exhibit

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responses NMFS will classify as behavioral harassment (MMPA Level B) as a result of MFA/HFA sonar use ~~128,583~~ using the Risk Function and ~~528~~ from TTS). One marine mammal (harbor seal) will be exposed to sonar in excess of permanent threshold shift (PTS) threshold indicative of MMPA Level A harassment.

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Table 6-7: Summary of Mid-Frequency Active Sonar Exposures

Species	Level B Sonar Exposures		Level A Sonar Exposures
	Risk Function	TTS	PTS
<b>ESA Species</b>			
Blue whale	<del>17</del>	0	0
Fin whale	<del>127</del>	2	0
Humpback whale	<del>13</del>	0	0
Southern resident killer whale	<del>13</del>	0	0
Sei whale	1	0	0
Sperm whale	<del>101</del>	2	0
Steller Sea Lion	<del>113</del>	0	0
Sea otter	N/A	N/A	N/A
<b>Mysticetes</b>			
Gray whale	4	0	0
Minke whale	<del>2</del>	0	0
<b>Odontocetes</b>			
Baird's beaked whale	<del>11</del>	0	0
Bottlenose dolphin	0	0	0
Cuvier's beaked whale	<del>12</del>	0	0
Dall's porpoise	<del>4,458</del>	<del>147</del>	0
Dwarf/ Pygmy sperm whale	3	0	0
Harbor porpoise*	<del>119,103</del>	<del>45</del>	0
Mesoplodon spp.	<del>13</del>	0	0
Northern right whale dolphin	<del>698</del>	<del>18</del>	0
Pacific white-sided dolphin	<del>521</del>	<del>23</del>	0
Risso's dolphin	<del>85</del>	2	0
Short beaked common dolphin	<del>1,142</del>	<del>42</del>	0
Short-finned pilot whale	2	0	0
Striped dolphin	<del>38</del>	1	0
<b>Pinnipeds</b>			
Northern elephant seal	<del>288</del>	0	0
Pacific harbor seal	<del>258</del>	<del>245</del>	1
California sea lion	<del>281</del>	0	0
Northern fur seal	<del>1,272</del>	1	0
<b>Total</b>	<del>128,583</del>	<del>528</del>	<b>1</b>

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N/A: Not applicable – Based on a few historic observations, its habitat preference or overall distribution, a species may occur rarely in the NWTRC, but no density estimates were available for modeling exposures

\* Threshold for MMPA Level B Harassment is based on 120 dB step function

These exposure numbers are generated by the model without consideration of mitigation measures that would reduce the potential for marine mammal exposures to sonar. It should be noted, however, that these exposure modeling results are statistically derived estimates of potential marine mammal sonar exposures without consideration of standard mitigation and monitoring procedures. It is highly unlikely that a marine mammal would experience any long-

the use of certain habitats. Whether an animal responds, the types of behavioral changes, and the magnitude of those changes may depend on the intensity level of the exposure and the individual animal's prior status or behavior. Little information is available to determine the response of animals to mid-frequency active sonar and its effects on ultimate and proximate life functions or at the population or species level.

### 6.7.2 Estimated Effects on ESA Species

The endangered species that may be affected as a result of implementation of the NWTRC activities include the blue whale, fin whale, humpback whale, North Pacific right whale, sei whale, and sperm whale.

#### 6.7.2.1 Blue Whale

The risk function and Navy post-modeling analysis estimates ~~17~~ blue whales will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be zero exposures to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No blue whales would be exposed to sound levels that could cause PTS.

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Modeling indicates there would one exposure to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would one exposure to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and zero exposures to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Given the large size (up to 98 ft [30 m]) of individual blue whales (Leatherwood et al. 1982), pronounced vertical blow, and aggregation of approximately two to three animals in a group (probability of track line detection = 0.90 in Beaufort Sea States of 6 or less; Barlow 2003), it is very likely that lookouts would detect a group of blue whales at the surface. Additionally, mitigation measures call for continuous visual observation during activities with active sonar; therefore, blue whales that migrate into the operating area would be detected by visual observers. Implementation of mitigation measures and probability of detecting a large blue whale reduces the likelihood of exposure, such that effects would be discountable.

In the unlikely event that blue whales are exposed to mid-frequency sonar, the anatomical information available on blue whales suggests that they are not likely to hear mid-frequency (1 kHz–10 kHz) sounds (Ketten 1997). There are no audiograms of baleen whales, but blue whales tend to react to anthropogenic sound below 1 kHz (e.g., seismic air guns), and most of their vocalizations are also in that range, suggesting that they are more sensitive to low frequency sounds (Richardson et al. 1995). Based on this information, if they do not hear these sounds, they are not likely to respond physiologically or behaviorally to those received levels.

Based on the model results, behavioral patterns, acoustic abilities of blue whales, results of past training, and the implementation of procedure mitigation measures presented in Section 11, the Navy finds that the NWTRC training events would not likely result in any death or injury to blue whales. Modeling does indicate the potential for MMPA Level B harassment, indicating the proposed ASW exercises may affect blue whales. An ESA consultation is ongoing, and includes the finding that the proposed ASW exercises **may affect blue whales**. Should consultation under the ESA conclude that the estimated exposures of humpback whales can be avoided via

mitigation measures or that the received sound is not likely to adversely affect blue whales, authorization for the predicted exposures would not be requested under MMPA. At this time, this application requests authorization for the annual harassment of ~~19~~ blue whales by MMPA Level B harassment (~~17~~ from mid-frequency active sonar and two from explosive sources) and one blue whale by MMPA Level A harassment from potential exposure to mid-frequency active sonar.

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#### 6.7.2.2 Fin Whale

The risk function and Navy post-modeling analysis estimates ~~122~~ fin whales will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be two exposures to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No fin whales would be exposed to sound levels that could cause PTS.

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Modeling indicates there would 12 exposure to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would be seven exposures to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and one exposure to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Given the large size (up to 78 ft [24m]) of individual fin whales (Leatherwood et al. 1982), pronounced vertical blow, mean aggregation of three animals in a group (probability of trackline detection = 0.90 in Beaufort Sea States of 6 or less; Barlow 2003) it is very likely that lookouts would detect a group of fin whales at the surface. Additionally, mitigation measures call for continuous visual observation during activities with active sonar, therefore, fin whales in the vicinity of activities would be detected by visual observers. Implementation of mitigation measures and probability of detecting a large fin whale reduces the likelihood of exposure, such that effects would be discountable.

In the unlikely event that fin whales are exposed to mid-frequency sonar, the anatomical information available on fin whales suggests that they are not likely to hear mid-frequency (1 kHz–10 kHz) sounds (Richardson et al. 1995; Ketten 1997). Fin whales primarily produce low frequency calls (below 1 kHz) with source levels up to 186 dB re 1  $\mu\text{Pa}$  at 1 m, although it is possible they produce some sounds in the range of 1.5 to 28 kHz (review by Richardson et al. 1995; Croll et al. 2002). There are no audiograms of baleen whales, but they tend to react to anthropogenic sound below 1 kHz, suggesting that they are more sensitive to low frequency sounds (Richardson et al. 1995). Based on this information, if they do not hear these sounds, they are not likely to respond physiologically or behaviorally to those received levels.

In the St. Lawrence estuary area, fin whales avoided vessels with small changes in travel direction, speed and dive duration, and slow approaches by boats usually caused little response (MacFarlane 1981). Fin whales continued to vocalize in the presence of boat sound (Edds and MacFarlane 1987). Even though any undetected fin whales transiting the NWTRC may exhibit a reaction when initially exposed to active acoustic energy, field observations indicate the effects would not cause disruption of natural behavioral patterns to a point where such behavioral patterns would be abandoned or significantly altered.

Based on the model results, behavioral patterns, acoustic abilities of fin whales, results of past training, and the implementation of procedure mitigation measures presented in Section 11, the Navy finds that the NWTRC training events would not likely result in any death or injury to fin whales. Modeling does indicate the potential for MMPA Level B harassment, indicating the proposed ASW exercises may affect fin whales. An ESA consultation is ongoing, and includes the finding that the proposed ASW exercises **may affect fin whales**. Should consultation under the ESA conclude that the estimated exposures of humpback whales can be avoided via mitigation measures or that the received sound is not likely to adversely affect fin whales, authorization for the predicted exposures would not be requested under MMPA. At this time, this application requests authorization for the annual harassment of ~~143~~ <sup>132</sup> fin whales by MMPA Level B harassment (~~124~~ from mid-frequency active sonar and 19 from explosive sources), and one fin whale by MMPA Level A harassment from potential exposure to underwater detonation.

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### 6.7.2.3 Humpback Whale

The risk function and Navy post-modeling analysis estimates ~~13~~ <sup>12</sup> humpback whales will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be no exposures to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No humpback whales would be exposed to sound levels that could cause PTS.

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Modeling indicates there would no exposures to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would zero exposures to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and zero exposures to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Given the large size (up to 53 ft [16m] of individual humpback whales (Leatherwood et al. 1982), and pronounced vertical blow, it is very likely that lookouts would detect humpback whales at the surface. Additionally, mitigation measures call for continuous visual observation during activities with active sonar, therefore, humpback whales that are present in the vicinity of ASW activities would be detected by visual observers reducing the likelihood of exposure, such that effects would be discountable.

There are no audiograms of baleen whales, but they tend to react to anthropogenic sound below 1 kHz, suggesting that they are more sensitive to low frequency sounds (Richardson et al. 1995). A single study suggested that humpback whales responded to mid-frequency sonar (3.1-3.6 kHz re 1  $\mu\text{Pa}^2\text{-s}$ ) sound (Maybaum 1989). The hand held sonar system had a sound artifact below 1,000 Hz which caused a response to the control playback (a blank tape) and may have affected the response to sonar (i.e., the humpback whale responded to the low frequency artifact rather than the mid-frequency active sonar sound). Humpback whales responded to small vessels (often whale watching boats) by changing swim speed, respiratory rates and social interactions depending on proximity to the vessel and vessel speed, with reponses varying by social status and gender (Watkins et al. 1981; Bauer 1986; Bauer and Herman 1986). Animals may even move out of the area in response to vessel noise (Salden 1988). Humpback whale mother-calf pairs are generally in the shallow protected waters. ASW mid-frequency active sonar activities takes place through out the extensive NWTRC but the areas inhabited by humpback whales is represents only a small portion of the NWTRC. Frankel and Clark (2000; 2002) reported that

there was only a minor response by humpback whales to the Acoustic Thermometry of Ocean Climate (ATOC) sound source and that response was variable with some animals being found closer to the sound source during operation.

Based on the model results, behavioral patterns, acoustic abilities of humpback whales, results of past training, and the implementation of procedure mitigation measures presented in Section 11, the Navy finds that the NWTRC training events would not likely result in any death or injury to humpback whales. Modeling does indicate the potential for MMPA Level B harassment, indicating the proposed ASW exercises may affect humpback whales. An ESA consultation is ongoing, and includes the finding that the proposed ASW exercises **may affect humpback whales**. Should consultation under the ESA conclude that the estimated exposures of humpback whales can be avoided via mitigation measures or that the received sound is not likely to adversely affect humpback whales, authorization for the predicted exposures would not be requested under MMPA. At this time, this application requests authorization for the annual harassment of ~~13~~ <sup>12</sup> humpback whales by MMPA Level B harassment (~~13~~ from mid-frequency active sonar and 0 from explosive sources) and no humpback whales by MMPA Level A harassment from potential exposure to mid-frequency active sonar or explosive sources.

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### 6.7.2.4 Sei Whale

The risk function and Navy post-modeling analysis estimates one sei whale will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be zero exposures to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No sei whales would be exposed to sound levels that could cause PTS.

Modeling indicates there would no exposures to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would zero exposures to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and zero exposures to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Given the large size (up to 53 ft [16m] of individual sei whales (Leatherwood et al. 1982), pronounced vertical blow, aggregation of approximately three animals (probability of trackline detection = 0.90 in Beaufort Sea States of 6 or less; Barlow 2003), it is very likely that lookouts would detect a group of sei whales at the surface. Additionally, mitigation measures call for continuous visual observation during activities with active sonar, therefore, sei whales that migrate into the operating area would be detected by visual observers. Implementation of mitigation measures and probability of detecting a large sei whale reduces the likelihood of exposure, such that effects would be discountable.

There is little information on the acoustic abilities of sei whales or their response to human activities. The only recorded sounds of sei whales are frequency modulated sweeps in the range of 1.5 to 3.5 kHz (Thompson et al. 1979) but it is likely that they also vocalized at frequencies below 1 kHz as do fin whales. There are no audiograms of baleen whales but they tend to react to anthropogenic sound below 1 kHz suggesting that they are more sensitive to low frequency sounds (Richardson et al. 1995). Sei whales were more difficult to approach than were fin whales and moved away from boats but were less responsive when feeding (Gunther 1949).

Based on the model results, behavioral patterns, acoustic abilities of sei whales, results of past training, and the implementation of procedure mitigation measures presented in Section 11, the Navy finds that the NWTRC training events would not likely result in any death or injury to sei whales. Modeling does indicate the potential for MMPA Level B harassment, indicating the proposed ASW exercises **may affect sei whales**. An ESA consultation is ongoing, and includes the finding that the proposed ASW exercises may affect sei whales. Should consultation under the ESA conclude that the estimated exposures of sei whales can be avoided via mitigation measures or that the received sound is not likely to adversely affect sei whales, authorization for the predicted exposures would not be requested under MMPA. At this time, this application requests authorization for the annual harassment of one sei whale by MMPA Level B harassment and no sei whales by MMPA Level A harassment from potential exposure to mid-frequency active sonar or explosive sources.

#### 6.7.2.5 Sperm Whales

The risk function and Navy post-modeling analysis estimates 101 sperm whales will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be two exposures to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No sperm whale would be exposed to sound levels that could cause PTS.

Modeling indicates there would 13 exposures to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would ten exposures to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and one exposure to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Given the large size (up to 56 ft [17m]) of individual sperm whales (Leatherwood et al. 1982), pronounced blow (large and angled), mean group size of approximately seven animals (probability of trackline detection = 0.87 in Beaufort Sea States of 6 or less; Barlow 2003; 2006), it is very likely that lookouts would detect a group of sperm whales at the surface. Sperm whales can make prolonged dives of up to two hours (Watwood et al. 2006) making detection more difficult. Additionally, mitigation measures call for continuous visual observation during activities with active sonar; therefore, sperm whales that migrate into the operating area would be detected by visual observers. Implementation of mitigation measures and probability of detecting a large sperm whale reduces the likelihood of exposure, such that effects would be discountable.

In the unlikely event that sperm whales are exposed to mid-frequency sonar, the information available on sperm whales exposed to received levels of active mid-frequency sonar suggests that the response to mid-frequency (1 kHz to 10 kHz) sounds is variable (Richardson et al. 1995). While Watkins et al. (1985) observed that sperm whales exposed to 3.25 kHz to 8.4 kHz pulses interrupted their activities and left the area, other studies indicate that, after an initial disturbance, the animals return to their previous activity. During playback experiments off the Canary Islands, André et al. (1997) reported that foraging whales exposed to a 10 kHz pulsed signal did not exhibit any general avoidance reactions. When resting at the surface in a compact group, sperm whales initially reacted strongly but then ignored the signal completely (André et al. 1997).

Based on the model results, behavioral patterns, acoustic abilities of sperm whales, results of past training, and the implementation of procedure mitigation measures presented in Section 11, the Navy finds that the NWTRC training events would not likely result in any death or injury to sperm whales. Modeling does indicate the potential for MMPA Level B harassment, indicating the proposed ASW exercises **may affect sperm whales**. An ESA consultation is ongoing, and includes the finding that the proposed ASW exercises may affect sperm whales. Should consultation under the ESA conclude that the estimated exposures of sperm whales can be avoided via mitigation measures or that the received sound is not likely to adversely affect sperm whales, authorization for the predicted exposures would not be requested under MMPA. At this time, this application requests authorization for the annual harassment of 126 sperm whales by MMPA Level B harassment (103 from mid-frequency active sonar and 23 from explosive sources) and one sperm whale by MMPA Level A harassment from potential exposure to explosive sources.

#### 6.7.2.6 Southern Resident Killer Whales

Due to the difficulty in determining particular stocks of killer whales in the wild, all stocks of killer whales were combined for modeling exposures. While overly conservative, all killer whales were assumed to belong to the southern resident killer whale stock. The risk function and Navy post-modeling analysis estimates 13 killer whales will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be no exposures to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No killer whales would be exposed to sound levels that could cause PTS.

Modeling indicates there would no exposures to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would zero exposures to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and zero exposures to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Given their size (up to 23 ft [7.0 m]), conspicuous coloring, pronounce dorsal fin and large mean group size of 6.5 animals (probability of trackline detection = 0.90 in Beaufort Sea States of 6 or less; Barlow, 2003). It is very likely that lookouts would detect a group of killer whales at the surface. Additionally, mitigation measures call for continuous visual observation during activities with active sonar, therefore, killer whales that migrate into the operating area would be detected by visual observers. Implementation of mitigation measures and probability of detecting large groups of killer whales reduces the likelihood of exposure.

Based on the model results, behavioral patterns, acoustic abilities of killer whales, results of past training, and the implementation of procedure mitigation measures presented in Section 11, the Navy finds that the NWTRC training events would not result in any population level effects, death or injury to killer whales. Modeling does indicate the potential for MMPA Level B harassment, indicating the proposed ASW exercises **may affect killer whales**. At this time, this application requests authorization for the annual harassment of 12 killer whales by MMPA Level B harassment (13 from mid-frequency active sonar and zero from explosive sources) and no killer whales by MMPA Level A harassment from potential exposure to mid-frequency active sonar or underwater detonation.

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### 6.7.2.7 Steller Sea Lion

The risk function and Navy post-modeling analysis estimates 113 Steller sea lions will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be no exposures to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No Steller sea lions would be exposed to sound levels that could cause PTS.

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Modeling indicates there would three exposures to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would three exposures to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and no exposures to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Based on the model results, behavioral patterns, acoustic abilities of Steller sea lions, results of past training, and the implementation of procedure mitigation measures presented in Section 11, the Navy finds that the NWTRC training events would not likely result in any death or injury to Steller sea lions. Modeling does indicate the potential for MMPA Level B harassment, indicating the proposed ASW exercises **may affect Steller sea lions**. An ESA consultation is ongoing, and includes the finding that the proposed ASW exercises may affect Steller sea lions. Should consultation under the ESA conclude that the estimated exposures of Steller sea lions can be avoided via mitigation measures or that the received sound is not likely to adversely affect Steller sea lions, authorization for the predicted exposures would not be requested under MMPA. At this time, this application requests authorization for the annual harassment of 119 Steller sea lions by MMPA Level B harassment (113 from mid-frequency active sonar and six from explosive sources) only.

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### 6.7.3 Estimated Exposures for Non-ESA Species

#### 6.7.3.1 Gray Whale

The risk function and Navy post-modeling analysis estimates four gray whales will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be zero exposures to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No gray whales would be exposed to sound levels that could cause PTS.

Modeling indicates there would no exposures to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would zero exposures to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and zero exposures to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Given the large size (up to 46 ft. [14 m]) of individual gray whales, pronounced blow, and group size of up to 16 animals (Leatherwood et al. 1982) and (probability of trackline detection = 0.87 in Beaufort Sea States of 6 or less; Barlow 2003; 2006), it is very likely that lookouts would detect a group of gray whales at the surface. Additionally, mitigation measures call for continuous visual observation during activities with active sonar, therefore, gray whales that migrate into the operating area would be detected by visual observers. Implementation of

mitigation measures and probability of detecting a gray whale reduces the likelihood of exposure, such that effects would be discountable.

Based on the model results, behavioral patterns, acoustic abilities of gray whales, results of past training, and the implementation of procedure protective measures presented in Section 11, the Navy finds that the NWTRC training events would not result in any population level effects, death or injury to gray whales. At this time, this application requests authorization for the annual harassment of four gray whales by MMPA Level B harassment from mid-frequency active sonar only.

#### 6.7.3.2 Minke Whale

The risk function and Navy post-modeling analysis estimates nine minke whales will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be no exposures to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No minke whales would be exposed to sound levels that could cause PTS.

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Modeling indicates there would no exposures to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would zero exposures to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and zero exposures to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Minke whales are difficult to spot visually but can be detected using passive acoustic monitoring. Additionally, mitigation measures call for continuous visual observation during activities with active sonar, therefore, minke whales that migrate into the operating area would be detected by visual observers. Implementation of mitigation measures and probability of detecting a minke whale reduces the likelihood of exposure, such that effects would be discountable.

Based on the model results, behavioral patterns, acoustic abilities of minke whales, results of past training, and the implementation of procedure protective measures presented in Section 11, the Navy finds that the NWTRC training events would not result in any population level effects, death or injury to minke whales. At this time, this application requests authorization for the annual harassment of nine minke whales by MMPA Level B harassment from mid-frequency active sonar only.

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#### 6.7.3.3 Baird's Beaked Whale

The risk function and Navy post-modeling analysis estimates 11 Baird's beaked whales will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be no exposures to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No Baird's beaked whales would be exposed to sound levels that could cause PTS.

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Modeling indicates there would one exposure to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would zero exposures to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and zero exposures to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Given the size (up to 15.5 ft. [4.7 m]) of individual Baird's beaked whales, aggregation of 2.3 animals, it is likely that lookouts would detect a group of Baird's beaked whales at the surface although beaked whales make prolonged dives that can last up to an hour (Baird et al. 2004). Implementation of mitigation measures and probability of detecting a large sei whale reduces the likelihood of exposure, such that effects would be discountable.

Based on the model results, behavioral patterns, acoustic abilities of Baird's beaked whales, results of past training, and the implementation of procedure protective measures presented in Section 11, the Navy finds that the NWTRC training events would not result in any population level effects, death or injury to Baird's beaked whales. At this time, this application requests authorization for the annual harassment of 12 Baird's beaked whales by MMPA Level B harassment (11 from mid-frequency active sonar and one from explosive sources) only.

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**6.7.3.4 Bottlenose Dolphin**

The risk function and Navy post-modeling analysis estimates no bottlenose dolphins will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be zero exposures to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No bottlenose dolphins would be exposed to sound levels that could cause PTS.

Modeling indicates there would no exposures to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would zero exposures to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and zero exposures to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Given the frequent surfacing, aggregation of approximately 9 animals (probability of trackline detection = 0.76 in Beaufort Sea States of 6 or less; Barlow 2003), it is very likely that lookouts would detect a group of bottlenose dolphins at the surface. Additionally, mitigation measures call for continuous visual observation during activities with active sonar, therefore, bottlenose dolphins that migrate into the operating area would be detected by visual observers. Implementation of mitigation measures and probability of detecting bottlenose dolphins reduces the likelihood of exposure, such that effects would be discountable.

Based on the model results, behavioral patterns, acoustic abilities of bottlenose dolphins, results of past training, and the implementation of procedure mitigation measures presented in Section 11, the Navy finds that the NWTRC training events would not result in any population level effects, death or injury to bottlenose dolphins. At this time, this application does not request authorization for the annual harassment bottlenose dolphins by MMPA Level B or MMPA Level A harassment from potential exposure to mid-frequency active sonar or explosive sources.

**6.7.3.5 Cuvier's Beaked Whale**

The risk function and Navy post-modeling analysis estimates 12 Cuvier's beaked whales will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be zero exposures to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No Cuvier's beaked whale would be exposed to sound levels that could cause PTS.

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Modeling indicates there would one exposure to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would one exposure to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and zero exposures to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Given the medium size (up to 23 ft. [7.0 m]) of individual Cuvier's beaked whales, aggregation of approximately two animals (Barlow 2006), it is likely that lookouts would detect a group of Cuvier's beaked whales at the surface although beaked whales make prolonged dives that can last up to an hour (Baird et al. 2004). Implementation of mitigation measures and probability of detecting a large sei whale reduces the likelihood of exposure, such that effects would be discountable.

Based on the model results, behavioral patterns, acoustic abilities of Cuvier's beaked whales, results of past training, and the implementation of procedure protective measures presented in Section 11, the Navy finds that the NWTRC training events would not result in any population level effects, death or injury to Cuvier's beaked whales. At this time, this application requests authorization for the annual harassment of 14 Cuvier's beaked whales by MMPA Level B harassment (12 from mid-frequency active sonar and two from explosive sources) only.

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**6.7.3.6 Dall's Porpoise**

The risk function and Navy post-modeling analysis estimates 4,458 Dall's porpoises will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be 147 exposures to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No Dall's porpoises would be exposed to sound levels that could cause PTS.

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Modeling indicates there would 62 exposures to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would 58 exposures to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and three exposures to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Given the frequent surfacing and aggregation of approximately 2-20 animals, it is very likely that lookouts would detect a group of Dall's porpoises at the surface. Additionally, protective measures call for continuous visual observation during activities with active sonar, therefore, Dall's porpoises that migrate into the operating area would be detected by visual observers. Implementation of mitigation measures and probability of detecting large groups of Dall's porpoises reduces the likelihood of exposure.

Based on the model results, behavioral patterns, acoustic abilities of Dall's porpoise, results of past training, and the implementation of procedure protective measures presented in Section 11, the Navy finds that the NWTRC training events would not result in any population level effects to Dall's porpoise. At this time, this application requests authorization for the annual harassment of 4,725 Dall's porpoise by MMPA Level B harassment (4,605 from mid-frequency active sonar and 120 from explosive sources) and three Dall's porpoise by MMPA Level A harassment from potential exposure to explosive sources.

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### 6.7.3.7 Dwarf or Pygmy Sperm Whale

The risk function and Navy post-modeling analysis estimates three dwarf or pygmy sperm whales will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be no exposures to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No dwarf or pygmy sperm whales would be exposed to sound levels that could cause PTS.

Modeling indicates there would be one exposure to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would zero exposures to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and zero exposures to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Given their size (up to 10 ft [3 m]) and behavior of resting at the surface (Leatherwood et al. 1982), it is very likely that lookouts would detect a dwarf or pygmy sperm whale at the surface. Additionally, mitigation measures call for continuous visual observation during activities with active sonar and explosive sources, therefore, dwarf or pygmy sperm whales that migrate into the operating area would be detected by visual observers. Implementation of mitigation measures and probability of detecting large groups of dwarf or pygmy sperm whales reduces the likelihood of exposure.

Based on the model results, behavioral patterns, acoustic abilities of dwarf or pygmy sperm whales, results of past training, and the implementation of procedure mitigation measures presented in Section 11, the Navy finds that the NWTRC training events would not result in any population level effects, death or injury to dwarf or pygmy sperm whale. At this time, this application requests authorization for the annual harassment of four pygmy sperm whales by MMPA Level B harassment (three from mid-frequency active sonar and one from explosive sources) only.

### 6.7.3.8 Harbor Porpoise

The 120 dB step function and Navy post-modeling analysis estimates ~~119,103~~ harbor porpoises will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be ~~45~~ exposures to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No harbor porpoises would be exposed to sound levels that could cause PTS.

Modeling indicates there would nine exposures to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would five exposures to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and one exposure to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Given the frequent surfacing with characteristic rooster tail and aggregation of approximately 2-20 animals, it is very likely that lookouts would detect a group of harbor porpoises at the surface (Leatherwood et al., 1982). Additionally, mitigation measures call for continuous visual observation during activities with active sonar and explosive sources, therefore, harbor porpoises that migrate into the operating area would be detected by visual observers. Implementation of

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ROP and probability of detecting large groups of harbor porpoises reduces the likelihood of exposure.

Based on the model results, behavioral patterns, acoustic abilities of harbor porpoises, results of past training, and the implementation of procedure mitigation measures presented in Section 11, the Navy finds that the NWTRC training events would not result in any population level effects, death or injury to harbor porpoises. At this time, this application requests authorization for the annual harassment of ~~119,162~~ harbor porpoises by MMPA Level B harassment (~~119,148~~ from mid-frequency active sonar and 14 from explosive sources) and one harbor porpoise by MMPA Level A harassment from potential exposure to explosive sources.

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### 6.7.3.9 Mesoplodont Whales

The risk function and Navy post-modeling analysis estimates ~~13~~ Mesoplodont whales will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be zero exposures to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No Mesoplodont whales would be exposed to sound levels that could cause PTS.

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Modeling indicates there would be one exposure to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would zero exposures to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and zero exposures to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Given the size (up to 15.5 ft. [4.7 m]) of individual Mesoplodont beaked whales, it is likely that lookouts would detect a group of Mesoplodont beaked whales at the surface although beaked whales make prolonged dives that can last up to an hour (Baird et al. 2004). Implementation of mitigation measures and probability of detecting a Mesoplodont whale reduces the likelihood of exposure, such that effects would be discountable.

Based on the model results, behavioral patterns, acoustic abilities of Mesoplodont beaked whales, results of past training, and the implementation of procedure protective measures presented in Section 11 for explosive sources, the Navy finds that the NWTRC training events would not result in any population level effects, death or injury to Mesoplodont beaked whales.

At this time, this application requests authorization for the annual harassment of ~~14~~ Mesoplodont whales by MMPA Level B harassment (~~13~~ from mid-frequency active sonar and one from explosive sources) and zero Mesoplodont whales by MMPA Level A harassment from potential exposure to mid-frequency active sonar or explosive sources.

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### 6.7.3.10 Northern Right Whale Dolphin

The risk function and Navy post-modeling analysis estimates ~~698~~ northern right whale dolphins will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be ~~18~~ exposures to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No northern right whale dolphins would be exposed to sound levels that could cause PTS.

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Modeling indicates there would be 11 exposures to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would seven exposures to impulsive sound or pressures from

explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and one exposure to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Given their large group size of up to 100 animals (Leatherwood et al. 1982), it is very likely, that lookouts would detect a group of northern right whale dolphins at the surface. Additionally, mitigation measures call for continuous visual observation during activities with active sonar and explosive sources, therefore, northern right whale dolphins that migrate into the operating area would be detected by visual observers. Implementation of protective measures and probability of detecting large groups of northern right whale dolphins reduces the likelihood of exposure.

Based on the model results, behavioral patterns, acoustic abilities of northern right whale dolphins, results of past training, and the implementation of procedure protective measures presented in Section 11 for explosive sources, the Navy finds that the NWTRC training events would not result in any population level effects, death or injury to northern right whale dolphins. At this time, this application requests authorization for the annual harassment of 734 northern right whale dolphins by MMPA Level B harassment (716 from mid-frequency active sonar and 18 from explosive sources) and one northern right whale dolphin by MMPA Level A harassment from potential exposure to explosive sources.

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### 6.7.3.11 Pacific White-sided Dolphin

The risk function and Navy post-modeling analysis estimates 521 Pacific white-sided dolphin will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be 23 exposures to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No Pacific white-sided dolphins would be exposed to sound levels that could cause PTS.

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Modeling indicates there would be eight exposures to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would three exposures to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and zero exposures to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Given their frequent surfacing and large group size of up to several thousand animals (Leatherwood et al. 1982), it is very likely that lookouts would detect a group of Pacific white-sided dolphins at the surface. Additionally, protective measures call for continuous visual observation during activities with active sonar and explosive sources, therefore, Pacific white-sided dolphins that migrate into the operating area would be detected by visual observers. Implementation of mitigation measures and probability of detecting large groups of Pacific white-sided dolphins reduces the likelihood of exposure.

Based on the model results, behavioral patterns, acoustic abilities of Pacific white-sided dolphins, results of past training, and the implementation of procedure protective measures presented in Section 11, the Navy finds that the NWTRC training events would not result in any population level effects, death or injury to Pacific white-sided dolphins. At this time, this application requests authorization for the annual harassment of 555 Pacific white-sided dolphins by MMPA Level B harassment (544 from mid-frequency active sonar and 11 from explosive sources) only.

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### 6.7.3.12 Risso's Dolphin

The risk function and Navy post-modeling analysis estimates 85 Risso's dolphins will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be two exposures to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No Risso's dolphins would be exposed to sound levels that could cause PTS.

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Modeling indicates there would be nine exposures to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would four exposures to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and zero exposures to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Given their frequent surfacing, light coloration and large group size of up to several hundred animals (Leatherwood et al. 1982), probability of trackline detection of 0.76 in Beaufort Sea States of 6 or less (Barlow 2006), it is very likely that lookouts would detect a group of Risso's dolphins at the surface. Additionally, mitigation measures call for continuous visual observation during activities with active sonar and explosive sources, therefore, Risso's dolphins that migrate into the operating area would be detected by visual observers. Implementation of mitigation measures and probability of detecting large groups of Risso's dolphins reduces the likelihood of exposure.

Based on the model results, behavioral patterns, acoustic abilities of Risso's dolphins, results of past training, and the implementation of procedure mitigation measures presented in Section 11, the Navy finds that the NWTRC training events would not result in any population level effects, death or injury to Risso's dolphins. At this time, this application requests authorization for the annual harassment of 100 Risso's dolphins by MMPA Level B harassment (87 from mid-frequency active sonar and 13 from explosive sources).

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### 6.7.3.13 Short-Beaked Common Dolphin

The risk function and Navy post-modeling analysis estimates 1,142 short-beaked common dolphins will exhibit behavioral responses NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be 42 exposures to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No short-beaked common dolphins would be exposed to sound levels that could cause PTS.

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Modeling indicates there would be 49 exposures to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would 23 exposures to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and two exposures to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Given the frequent surfacing and their large group size of up to 1,000 animals (Leatherwood et al. 1982), it is very likely, that lookouts would detect a group of short-beaked common dolphins at the surface. Additionally, mitigation measures call for continuous visual observation during activities with active sonar and explosive sources, therefore, common dolphins that migrate into the operating area would be detected by visual observers. Exposure of short-beaked common

dolphins to energy levels associated with MMPA Level A harassment would not occur because mitigation measures would be implemented, large groups of short-beaked common dolphins would be observed, and explosive sources result in a small zone of influence.

Based on the model results, behavioral patterns, acoustic abilities of short-beaked common dolphins, results of past training, and the implementation of procedure mitigation measures presented in Section 11, the Navy finds that the NWTRC training events would not result in any population level effects, death or injury to short-beaked common dolphins. At this time, this application requests authorization for the annual harassment of ~~1,256~~ short-beaked common dolphins by MMPA Level B harassment (~~1,184~~ from mid-frequency active sonar and ~~72~~ from explosive sources), and two short-beaked common dolphins by MMPA Level A harassment from underwater detonations).

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#### 6.7.3.14 Short-finned Pilot Whale

The risk function and Navy post-modeling analysis estimates two short-finned pilot whales will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be zero exposures to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No short-finned pilot whale would be exposed to sound levels that could cause PTS.

Modeling indicates there would be no exposures to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would zero exposures to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and zero exposures to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Given their size (up to 20 ft [6.1 m]), and large mean group size of 22.5 animals (probability of trackline detection = 0.76 in Beaufort Sea States of 6 or less; Barlow 2006). It is very likely that lookouts would detect a group of short-finned pilot whales at the surface. Additionally, mitigation measures call for continuous visual observation during activities with active sonar, therefore, short-finned pilot whales that migrate into the operating area would be detected by visual observers. Implementation of mitigation measures and probability of detecting groups of short-finned pilot whales reduces the likelihood of exposure.

Based on the model results, behavioral patterns, acoustic abilities of short-finned pilot whale, results of past training, and the implementation of procedure mitigation measures presented in Section 11, the Navy finds that the NWTRC training events would not result in any population level effects, death or injury to short-finned pilot whale. At this time, this application requests authorization for the annual harassment of two short-finned pilot whales by MMPA Level B harassment from mid-frequency active sonar.

#### 6.7.3.15 Striped Dolphin

The risk function and Navy post-modeling analysis estimates ~~38~~ striped dolphins will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be one exposure to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No striped dolphins would be exposed to sound levels that could cause PTS.

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Modeling indicates there would be no exposure to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would one exposure to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and zero exposures to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Given their frequent surfacing, aerobatics and large mean group size of 37.3 animals (probability of trackline detection = 1.00 in Beaufort Sea States of 6 or less; Barlow 2006), it is very likely that lookouts would detect a group of striped dolphins at the surface. Additionally, mitigation measures call for continuous visual observation during activities with active sonar, therefore, striped dolphins that migrate into the operating area would be detected by visual observers. Implementation of mitigation measures and probability of detecting groups of striped dolphins reduces the likelihood of exposure.

Based on the model results, behavioral patterns, acoustic abilities of striped dolphins, results of past training, and the implementation of procedure mitigation measures presented in Section 11 for explosive sources, the Navy finds that the NWTRC training events would not result in any population level effects, death or injury to striped dolphins. At this time, this application requests authorization for the annual harassment of ~~40~~ striped dolphins by MMPA Level B harassment (~~39~~ from mid-frequency active sonar and one from explosive sources).

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#### 6.7.3.16 Northern Elephant Seal

The risk function and Navy post-modeling analysis estimates ~~288~~ northern elephant seals will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be no exposures to accumulated acoustic energy above 204 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS for northern elephant seals. No northern elephant seals would be exposed to sound levels that could cause PTS.

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Modeling indicates there would be 53 exposures to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would 29 exposures to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and two exposures to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Northern elephant seals tend to dive for long periods, 20-30 minutes, and only spend about 10% of the time at the surface making them difficult to detect. Elephant seals migrate out of the southern California area to forage for several months at a time (Le Boeuf 1994).

Based on the model results, behavioral patterns, acoustic abilities of Northern elephant seals, results of past training, and the implementation of procedure mitigation measures presented in Section 11, the Navy finds that the NWTRC training events would not result in any population level effects, death or injury to Northern elephant seals. At this time, this application requests authorization for the annual harassment of ~~370~~ northern elephant seals by MMPA Level B harassment (~~288~~ from mid-frequency active sonar and ~~82~~ from explosive sources) and two northern elephant seals by MMPA Level A harassment from potential exposure to explosive sources.

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### 6.7.3.17 Pacific Harbor Seal

The risk function and Navy post-modeling analysis estimates ~~258~~ Pacific harbor seals will exhibit behavioral responses to sonar NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be ~~245~~ exposures to accumulated acoustic energy above 183 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS for Pacific harbor seals. One Pacific harbor seal would be exposed to sound levels that could cause PTS.

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Modeling indicates there would be two exposures to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would zero exposures to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and zero exposures to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Harbor seals forage near their rookeries (usually within 50 km) therefore they tend to remain in the southern California area most of the time in comparison to northern elephant seals.

Based on the model results, behavioral patterns, acoustic abilities of harbor seals, results of past training, and the implementation of procedure mitigation measures presented in Section 11, the Navy finds that the NWTRC training events would not result in any population level effects, death or injury to harbor seals. At this time, this application requests authorization for the annual harassment of ~~505~~ Pacific harbor seals by MMPA Level B harassment (~~503~~ from mid-frequency active sonar and two from explosive sources) and one Pacific harbor seal by MMPA Level A harassment from mid-frequency active sonar.

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### 6.7.3.18 California Sea Lion

The risk function and Navy post-modeling analysis estimates ~~281~~ California sea lions will exhibit behavioral responses NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be no exposures to accumulated acoustic energy above 206 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS for California sea lions. No California sea lions would be exposed to sound levels that could cause PTS.

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Modeling indicates there would be two exposures to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would one exposure to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and zero exposures to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

California sea lions make short duration dives and may rest at the surface (Feldkamp et al. 1989) making them easier to detect than other pinnipeds.

Based on the model results, behavioral patterns, acoustic abilities of California sea lions, results of past training, and the implementation of procedure mitigation measures presented in Sections 11, the Navy finds that the NWTRC training events would not result in any population level effects, death or injury to harbor seals. At this time, this application requests authorization for the annual harassment of ~~284~~ California sea lions by MMPA Level B harassment (~~281~~ from mid-frequency active sonar and three from explosive sources) only.

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### 6.7.3.19 Northern Fur Seal

The risk function and Navy post-modeling analysis estimates ~~1,277~~ northern fur seals will exhibit behavioral responses NMFS will classify as harassment under the MMPA (Table 6-7). Modeling also indicates there would be one exposure to accumulated acoustic energy above 195 dB re 1  $\mu\text{Pa}^2\text{-s}$ , which is the threshold established indicative of onset TTS. No northern fur seals would be exposed to sound levels that could cause PTS.

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Modeling indicates there would be 24 exposure to impulsive sound or pressures from explosive sources of 177 dB, which is the threshold indicative of sub-TTS behavioral disturbance. Modeling also indicates there would 44 exposures to impulsive sound or pressures from explosive sources of 182 dB or 23 psi, which is the threshold indicative of onset TTS, and one exposure to impulsive sound or pressures from explosive sources that would cause slight physical injury (Table 6-8).

Northern fur seals make short duration dives and often rest at the surface (Antonelis et al. 1990) making them easier to detect.

Based on the model results, behavioral patterns, acoustic abilities of northern fur seals, results of past training, and the implementation of procedure mitigation measures presented in Section 11, the Navy finds that the NWTRC training events would not result in any population level effects, death or injury to northern fur seals. At this time, this application requests authorization for the annual harassment of ~~1,346~~ northern fur seals by MMPA Level B harassment (~~1,278~~ from mid-frequency active sonar and 68 from explosive sources) and one northern fur seals by MMPA Level A harassment from explosive sources.

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## 7 IMPACTS TO MARINE MAMMAL SPECIES OR STOCKS

Overall, the conclusions in this analysis find that impacts to marine mammal species and stocks would be negligible for the following reasons:

- Most acoustic harassments are within the non-injurious temporary threshold shift (TTS) or behavioral effects zones (Level B harassment). Thirteen exposures to sound levels or pressure that could cause permanent threshold shift (PTS)/injury (Level A harassment) resulted from the summation of the modeling.
- Although the numbers presented in Tables 6-7 and 6-8 represent estimated harassment under the Marine Mammal Protection Act (MMPA), as described above, they are conservative estimates of harassment, primarily by behavioral disturbance. In addition, the model calculates harassment without taking into consideration standard mitigation measures, and is not indicative of a likelihood of either injury or harm.
- Additionally, the mitigation measures described in Chapter 11 are designed to reduce sound exposure of marine mammals to levels below those that may cause "behavioral disruptions" and to achieve the least practicable adverse effect on marine mammal species or stocks.

Consideration of negligible impact is required for National Marine Fisheries Service (NMFS) to authorize incidental take of marine mammals. By definition, an activity has a "negligible impact" on a species or stock when it is determined that the total taking is not likely to reduce annual rates of adult survival or recruitment (i.e., offspring survival, birth rates). Using each species' life history information, the expected behavioral patterns in the Northwest Training Range Complex (NWTRC) training and exercise locations, and an analysis of the behavioral disturbance levels in comparison to the overall population presented for each species, these species-specific analyses support the conclusion that proposed NWTRC training events would have a negligible impact on marine mammal populations.

This authorization request assumes that short-term non-injurious sound exposure levels predicted to cause TTS or temporary behavioral disruptions qualify as MMPA Level B harassment. As discussed, this will overestimate reactions qualifying as harassment under MMPA because there is no established scientific correlation between mid-frequency active sonar use and long term abandonment or significant alteration of behavioral patterns in marine mammals. As detailed in Table 6-7 and Table 6-8, there are 129,570 MMPA Level B takes (Risk Function and TTS), 13 MMPA Level A takes, and no takes for mortality in this authorization request.

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3. Salmon Bycatch: Final action on Bering Sea Chinook Salmon Bycatch Environmental Impact Statement (EIS).

4. Groundfish Issues: Review discussion paper on proposed Bristol Bay Trawl Closure and Walrus issues, and receive Council direction; Review discussion paper on GOA Tanner and Chinook Bycatch and receive Council direction.

5. Amendment 80 Cooperatives: Review annual report from cooperative; Final action on Amendment 80 Cooperative Formation criteria.

6. Marine Protection Act Nomination Process: Review NMFS letter and discuss next steps. (T)

7. Other Groundfish Issues: Review and approve halibut sorting Exempted Fishery Permit (TF); Review Habitat Area of Particular Concern (HAPC) evaluation criteria and Essential Fish Habitat (EFH) 5-year review methodology (SSC Only).

8. Scallop Issues: Receive Plan Team Report and review and approve Stock Assessment Fishery Evaluation (SAFE) Report.

9. Staff Tasking: Review Committees and tasking.

10. Other Business

The SSC agenda will include the following issues:

1. Salmon Bycatch
2. Halibut Sorting EFP
3. HAPC evaluation criteria and EFH 5 year review methodology
4. Scallop Issues

The Advisory Panel will address most of the same agenda issues as the Council, except for t1 reports. The Agenda is subject to change, and the latest version will be posted at <http://www.fakr.noaa.gov/npfmc/>.

Although non-emergency issues not contained in this agenda may come before these groups for discussion, in accordance with the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), those issues may not be the subject of formal action during these meetings. Actions will be restricted to those issues specifically identified in this notice and any issues arising after publication of this notice that require emergency action under Section 305 (c) of the Magnuson-Stevens Act, provided the public has been notified of the Council's intent to take final action to address the emergency.

### Special Accommodations

These meetings are physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Gail Bendixen at (907) 271-2809 at least 7 working days prior to the meeting date.

Dated: March 5, 2009.

**Tracey L. Thompson,**  
Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.  
[FR Doc. E9-5085 Filed 3-10-09; 8:45 am]  
BILLING CODE 3510-22-S

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

RIN: 0648-XN98

### North Pacific Fishery Management Council; Public Meeting

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice of a public meeting of the North Pacific Fishery Management Council's Pacific Northwest Crab Industry Advisory Committee (PNCIAC).

**SUMMARY:** The PNCIAC will meet in Seattle, WA. The meeting is open to the public.

**DATES:** The meeting will be held on Monday, March 23, 2009, from 9 a.m. to 1 p.m.

**ADDRESSES:** The meeting will be held at the Leif Erikson Hall, 2247 NW 57th Street, Suite 403, Seattle, WA 98107 (in Ballard); telephone: (206) 769-3474.

**Council address:** North Pacific Fishery Management Council, 605 W. 4th Ave., Suite 306, Anchorage, AK 99501-2252.

**FOR FURTHER INFORMATION CONTACT:** Dr. Diana Stram, Council Staff; telephone: (907) 271-2809.

**SUPPLEMENTARY INFORMATION:** The PNCIAC will review the Economic Data Reports: Review Alaska Fishery Science Center draft metadata and continue work on revisions of EDR forms; and discuss of Marine Stewardship Council/sustainable fisheries certification issues and take action as needed.

Although non-emergency issues not contained in this agenda may come before this group for discussion, in accordance with the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), those issues may not be the subject of formal action during this meeting. Actions will be restricted to those issues specifically identified in this notice and any issues arising after publication of this notice that require emergency action under Section 305 (c) of the Magnuson-Stevens Act, provided the public has been notified of the Council's intent to take final action to address the emergency.

### Special Accommodations

This meeting is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Gail Bendixen at (907) 271-2809 at least 7 working days prior to the meeting date.

Dated: March 5, 2009.

**Tracey L. Thompson,**  
Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.  
[FR Doc. E9-5104 Filed 3-10-09; 8:45 am]  
BILLING CODE 3510-22-S

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

RIN 0648-XN87

### Taking and Importing Marine Mammals; Navy Training and Research, Development, Testing, and Evaluation Activities Conducted within the Northwest Training Range Complex

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice; receipt of application for letter of authorization; request for comments and information.

**SUMMARY:** NMFS has received a request from the U.S. Navy (Navy) for authorization to take marine mammals incidental to military readiness training activities and research, development, testing and evaluation (RDT&E) to be conducted in the Northwest Training Range Complex (NWTRC) for the period beginning September 2009 and ending September 2014. Pursuant to the implementing regulations of the Marine Mammal Protection Act (MMPA), NMFS is announcing our receipt of the Navy's request for the development and implementation of regulations governing the incidental taking of marine mammals and inviting information, suggestions, and comments on the Navy's application and request.

**DATES:** Comments and information must be received no later than April 10, 2009.

**ADDRESSES:** Comments on the application should be addressed to Michael Payne, Chief, Permits, Conservation and Education Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910-3225. The mailbox address for providing email comments is [PRI.0648-XN87@noaa.gov](mailto:PRI.0648-XN87@noaa.gov). NMFS is not responsible for e-mail comments sent to

addresses other than the one provided here. Comments sent via e-mail, including all attachments, must not exceed a 10-megabyte file size.

**FOR FURTHER INFORMATION CONTACT:** Jolie Harrison, Office of Protected Resources, NMFS, (301) 713-2289, ext. 166.

**SUPPLEMENTARY INFORMATION:**

**Availability**

A copy of the Navy's application may be obtained by writing to the address specified above

(See **ADDRESSES**), telephoning the contact listed above (see **FOR FURTHER INFORMATION CONTACT**), or visiting the internet at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>. The Navy's Draft Environmental Impact Statement (DEIS) for NWTRC was made available to the public on December 26, 2008, and may be viewed at <http://www.nwtrangecomplexeis.com/>. During the initial 45-day public comment period, the Navy hosted five public hearings. The comment period was subsequently extended 30 days and another public hearing was held at an additional location.

**Background**

In the case of military readiness activities, sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce (Secretary) to allow, upon request, the incidental, but not intentional taking of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) if certain findings are made and regulations are issued or, if the taking is limited to harassment, notice of a proposed authorization is provided to the public for review.

Authorization for incidental takings may be granted if NMFS finds that the taking will have no more than a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses, and that the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such taking are set forth.

NMFS has defined "negligible impact" in 50 CFR 216.103 as:

an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.

With respect to military readiness activities, the MMPA defines "harassment" as:

(i) any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild [Level A Harassment]; or (ii) any act that disturbs or

is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered [Level B Harassment].

**Summary of Request**

In September, 2008, NMFS received an application from the Navy requesting authorization to take individuals of 32 species of marine mammals (4 pinniped and 28 cetacean) incidental to upcoming training and RDT&E activities to be conducted in the NWTRC (off the coasts of Washington, Oregon, and northern California) over the course of 5 years. These training and RDT&E activities are classified as military readiness activities. The Navy states that these training activities may expose some of the marine mammals present in the area to sound from various mid-frequency and high-frequency active tactical sonar sources or to pressure from underwater detonations. The Navy requests authorization to take individuals of 32 species of marine mammals by Level B Harassment.

**Specified Activities**

In the application submitted to NMFS, the Navy requests authorization to take marine mammals incidental to conducting training events and RDT&E utilizing mid- and high frequency active sonar sources and explosive detonations. These sonar and explosive sources will be utilized during Anti-submarine Warfare (ASW) Tracking Exercises, Mine Avoidance Training, Extended Echo Ranging and Improved Extended Echo Ranging (EER/IEER) events, Missile Exercises, Gunnery Exercises, Bombing Exercises, Sinking Exercises, and Mine Warfare Training. Table 1-1 in the application lists the activity types, the equipment and platforms involved, and the duration and potential locations of the activities.

**Information Solicited**

Interested persons may submit information, suggestions, and comments concerning the Navy's request (see **ADDRESSES**). All information, suggestions, and comments related to the Navy's NWTRC request and NMFS' potential development and implementation of regulations governing the incidental taking of marine mammals by the Navy's NWTRC activities will be considered by NMFS in developing, if appropriate, the most effective regulations governing the issuance of letters of authorization.

Dated: March 6, 2009.

**P. Michael Payne,**  
Chief, Division of Permits, Conservation, and Education, Office of Protected Resources, National Marine Fisheries Service.  
[FR Doc. E9-5287 Filed 3-10-09; 8:45 am]

**BILLING CODE 3510-22-S**

**DEPARTMENT OF EDUCATION**

**Notice of Proposed Information Collection Requests**

**AGENCY:** Department of Education.  
**SUMMARY:** The Acting Director, Information Collection Clearance Division, Regulatory Information Management Services, Office of Management, invites comments on the proposed information collection requests as required by the Paperwork Reduction Act of 1995.  
**DATES:** Interested persons are invited to submit comments on or before May 11, 2009.

**SUPPLEMENTARY INFORMATION:** Section 3506 of the Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35) requires that the Office of Management and Budget (OMB) provide interested Federal agencies and the public an early opportunity to comment on information collection requests. OMB may amend or waive the requirement for public consultation to the extent that public participation in the approval process would defeat the purpose of the information collection, violate State or Federal law, or substantially interfere with any agency's ability to perform its statutory obligations. The Acting Director, Regulatory Information Management Services, Office of Management, publishes that notice containing proposed information collection requests prior to submission of these requests to OMB. Each proposed information collection, grouped by office, contains the following: (1) Type of review requested, e.g. new, revision, extension, existing or reinstatement; (2) Title; (3) Summary of the collection; (4) Description of the need for, and proposed use of, the information; (5) Respondents and frequency of collection; and (6) Reporting and/or Recordkeeping burden. OMB invites public comment.

The Department of Education is especially interested in public comment addressing the following issues: (1) Is this collection necessary to the proper functions of the Department; (2) will this information be processed and used in a timely manner; (3) is the estimate of burden accurate; (4) how might the Department enhance the quality, utility, and clarity of the information to be

**Wauer, Brian D**

**From:** Petitpas, Linda S. CIV (OPNAV CNO) [linda.petitpas@navy.mil]  
**Sent:** Monday, May 18, 2009 11:26 AM  
**To:** Jolie.Harrison@noaa.gov  
**Cc:** Petitpas, Linda S. CIV (OPNAV CNO); Mosher, John G CIV COMPACFLT N01CE1JM; MacDowell, Ken CONT COMPACFLT N77/N01CE1KM; Kler, Kimberly H CIV NAVFAC NW, EV1; Foster, Larry M CIV (CPF N01CE1); Sheehan, Neil A CIV COMPACFLT, N01CE1NS; Foskey, Karen CIV; Peters, Agnes CIV; Carmichael, Ronald B CIV OPNAV, CNO N45; Morrison, Jillian L CDR OPNAV, N45J  
**Subject:** NWTRC Admin Record Date Change

Jolie,

On 3 Sep 08 Navy submitted a request for a 5-year authorization to take marine mammals incidental to training activities conducted in the Northwest Training Range Complex (NWTRC) for the period October 2009 through September 2014.

Subsequent to submission of that request, Navy requests to slip the date of authorization to the period February 2010 through February 2015. The Navy does not anticipate any change to the proposed action or effects analysis presented in the original application.

This e-mail serves as the administrative record of the requested change.

Linda  
Linda S. Petitpas  
Chief of Naval Operations (CNO)  
Environmental Readiness (N45)  
2511 Jefferson Davis Highway  
Suite 2000  
Arlington, VA 22202  
Phone: 703-604-1233  
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# Federal Register

Monday,  
July 13, 2009

## Part III

## Department of Commerce

### National Oceanic and Atmospheric Administration

#### 50 CFR Part 218

#### Taking and Importing Marine Mammals; Navy Training Activities Conducted Within the Northwest Training Range Complex; Proposed Rule

33828

Federal Register / Vol. 74, No. 132 / Monday, July 13, 2009 / Proposed Rules

#### DEPARTMENT OF COMMERCE

#### National Oceanic and Atmospheric Administration

#### 50 CFR Part 218

[Docket No. 0906101030-91038-01]

RIN 0648-AX88

#### Taking and Importing Marine Mammals; Navy Training Activities Conducted Within the Northwest Training Range Complex

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Proposed rule; request for comments.

**SUMMARY:** NMFS has received a request from the U.S. Navy (Navy) for authorization to take marine mammals incidental to training activities conducted in the Northwest Training Range Complex (NWTRC), off the coasts of Washington, Oregon, and northern California, for the period of February 2010 through February 2015 (updated from initial request for October 2009 through September 2014). Pursuant to the Marine Mammal Protection Act (MMPA), NMFS is proposing regulations to govern that take and requesting information, suggestions, and comments on these proposed regulations.

**DATES:** Comments and information must be received no later than August 12, 2009.

**ADDRESSES:** You may submit comments, identified by 0648-AX88, by any one of the following methods:

- **Electronic Submissions:** Submit all electronic public comments via the Federal eRulemaking Portal <http://www.regulations.gov>.
- Hand delivery or mailing of paper, disk, or CD-ROM comments should be addressed to Michael Payne, Chief, Permits, Conservation and Education Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910-3225.

**Instructions:** All comments received are a part of the public record and will generally be posted to <http://www.regulations.gov> without change. All Personal Identifying Information (for example, name, address, etc.) voluntarily submitted by the commenter may be publicly accessible. Do not submit Confidential Business Information or otherwise sensitive or protected information.

NMFS will accept anonymous comments (enter N/A in the required fields if you wish to remain anonymous). Attachments to electronic comments will be accepted in Microsoft Word, Excel, WordPerfect, or Adobe PDF file formats only.

**FOR FURTHER INFORMATION CONTACT:** Jolie Harrison, Office of Protected Resources, NMFS, (301) 713-2289, ext. 166.

#### SUPPLEMENTARY INFORMATION:

##### Availability

A copy of the Navy's application may be obtained by writing to the address specified above (*See ADDRESSES*), telephoning the contact listed above (*see FOR FURTHER INFORMATION CONTACT*), or visiting the Internet at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications>. The Navy's Draft Environmental Impact Statement (DEIS) for NWTRC was published on December 29 2008, and may be viewed at <http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications>. NMFS is participating in the development of the Navy's EIS as a cooperating agency under NEPA.

##### Background

Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce (Secretary) to allow, upon request, the incidental, but not intentional taking of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) during periods of not more than five consecutive years each if certain findings are made and regulations are issued or, if the taking is limited to harassment, notice of a proposed authorization is provided to the public for review.

Authorization shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses, and if the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such taking are set forth. NMFS has defined "negligible impact" in 50 CFR 216.103 as:

"An impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival."

The National Defense Authorization Act of 2004 (NDAA) (Pub. L. 108-136) modified the MMPA by removing the "small numbers" and "specified geographical region" limitations and

amended the definition of "harassment" as it applies to a "military readiness activity" to read as follows (Section 3(18)(B) of the MMPA):

- (i) Any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild [Level A Harassment]; or
- (ii) Any act that disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered [Level B Harassment].

In January 2009, the Council on Environmental Quality requested that NOAA conduct a comprehensive review of the Navy's mitigation measures applicable to the use of sonar in its training activities.

#### Summary of Request

In September 2008, NMFS received an application from the Navy requesting authorization for the take of individuals of 26 species of marine mammals incidental to upcoming Navy training activities to be conducted within the NWTRC, which extends west to 250 nautical miles (nm) (463 kilometers [km]) beyond the coast of Northern California, Oregon, and Washington and east to Idaho and encompasses 122,400 nm<sup>2</sup> (420,163 km<sup>2</sup>) of surface/subsurface ocean operating areas. These training activities are military readiness activities under the provisions of the NDAA. The Navy states, and NMFS concurs, that these military readiness activities may incidentally take marine mammals present within the NWTRC by exposing them to sound from mid-frequency or high frequency active sonar (MFAS/HFAS) or underwater detonations. The Navy requests authorization to take individuals of 26 species of marine mammals by Level B Harassment and 14 individuals of 10 species by Level A Harassment. The Navy's model, which did not factor in any potential benefits of mitigation measures, predicted that 14 individual marine mammals would be exposed to levels of sound or pressure that would result in injury; thus, NMFS is proposing to authorize the take, by Level A Harassment of 14 individuals. However, NMFS and the Navy have determined preliminarily that injury can be avoided through the implementation of the Navy's proposed mitigation measures. NMFS neither anticipates, nor does it propose to authorize mortality of marine mammals incidental to naval exercises in the NWTRC.

**Background of Request**

The Navy's mission is to maintain, train, and equip combat-ready naval forces capable of winning wars, deterring aggression, and maintaining freedom of the seas. Section 5062 of Title 10 of the United States Code directs the Chief of Naval Operations to train all naval forces for combat. The Chief of Naval Operations meets that direction, in part, by conducting at-sea training exercises and ensuring naval forces have access to ranges, operating areas (OPAREAs) and airspace where they can develop and maintain skills for wartime missions and conduct research, development, testing, and evaluation (RDTE&E) of naval weapons systems.

The proposed action would result in selectively focused, but critical enhancements and increases in training that are necessary for the Navy to maintain a state of military readiness commensurate with the national defense mission. The Navy proposes to implement actions within the NWTRC to:

- Conduct training and Unmanned Aerial Systems (UAS) RDTE&E activities of the same types as currently conducted, but also;
- Increase training activities from current levels as necessary in support of the Fleet Response Training Plan (FRTP);
- Accommodate force structure changes (new platforms and weapons systems) and
- Implement range enhancements associated with the NWTRC.

The proposed action would result in the following increases (above those conducted in previous years, *i.e.*, the No Action Alternative in the Navy's DEIS) in activities:

- *Antisubmarine Warfare*—10% increase.
- *Gunnery Exercises*—100% increase (increased from 90 to 176 events).
- *Bombing Exercises*—25% increase (increased from 24 to 30 sorties).
- *Sinking Exercises*—100% increase (increased from 1 to 2 exercises).

**Overview of the NWTRC**

The U.S. Navy has been training and operating in the area now defined as the NWTRC for over 60 years. The NWTRC includes ranges and airspace that extend west to 250 nm (463 km) beyond the coast of Northern California, Oregon, and Washington and east to Idaho. The components of the NWTRC encompass 122,461 nm<sup>2</sup> (420,163 km<sup>2</sup>) of surface/subsurface ocean operating areas (OPAREAs), 46,048 nm<sup>2</sup> (157,928 km<sup>2</sup>) of special use airspace (SUA), and 875 acres (354 hectares) of land. For range

management and scheduling purposes, the NWTRC is divided into numerous sub-component ranges or training areas used to conduct training and RDTE&E of military hardware, personnel, tactics, munitions, explosives, and electronic combat systems, as described in detail in the NWTRC DEIS. As the take of marine mammals is inherently tied to the surface/subsurface OPAREAs of the NWTRC, only those areas are discussed in more detail below.

The LOA application includes graphics (Figures 1-1, 2-1, and 2-2) that depict the sea, undersea, and air spaces used by the Navy. To aid in the description of the range complexes that will be addressed in this proposed rule, the ranges are divided into three major geographic and functional subdivisions. Each of the depicted individual ranges falls into one of these three major range subdivisions:

*The Offshore Area*—The Pacific Northwest (PACNW) OPAREA (same footprint as Offshore Area) serves as maneuver water space for ships and submarines to conduct training and to use as transit lanes. It extends from the Strait of Juan de Fuca in the north, to approximately 50 nm (93 km) south of Eureka, California in the south, and from the coast line of Washington, Oregon, and California westward to 130° W. longitude. The PACNW OPAREA is approximately 510 nm (945 km) in length from the northern boundary to the southern boundary, and 250 nm (463 km) from the coastline to the western boundary at 130° W longitude. Total surface area of the PACNW OPAREA is 122,400 nm<sup>2</sup> (420,163 km<sup>2</sup>).

Commander Submarine Force, U.S. Pacific Fleet (COMSUBPAC) Pearl Harbor manages this water space as transit lanes for U.S. submarines. While the sea space is ample for all levels of Navy training, no infrastructure is currently in place to support training. There are no dedicated training frequencies, no permanent instrumentation, no meteorological and oceanographic activities (METOC) system, and no Opposition Forces (OPFOR) or Electronic Combat (EC) target systems. In this region of the Pacific Ocean, storms and high sea states can create challenges to surface ship training between October and April. In addition, strong undersea currents in the PACNW make it difficult to place permanent bottom-mounted instrumentation such as hydrophones.

The Offshore Area undersea space lies beneath the PACNW OPAREA as described above. The bathymetry chart depicts a 100-fathom (182-m) curve parallel to the coastline approximately 12 nm (22 km) to sea, and in places 20

nm (37 km) out to sea. The area of deeper water of more than 100 fathoms (182 m) is calculated to be approximately 115,800 nm<sup>2</sup> (397,194 km<sup>2</sup>), while the shallow water area of less than 100 fathoms (600 ft, 182 m) is all near shore and amounts to approximately 6,600 nm<sup>2</sup> (22,638 km<sup>2</sup>).

*The Inshore Area*—This area includes all sea and undersea ranges and OPAREAs inland of the coastline, including Puget Sound. This area is composed of approximately 61 nm<sup>2</sup> of surface and subsurface area. NWTRC Inshore Areas include land ranges, airspace, and two surface/subsurface restricted areas—Navy 7 and 3. Activities conducted in each of these areas are not expected to take marine mammals, as defined by the MMPA and therefore, will not be discussed further in this proposed rule. Also included in the Inshore Area, Explosive Ordnance Disposal (EOD) Ranges are land, sea, and undersea ranges used by NSW and EOD forces specifically for EOD training and are composed of approximately 0.4 nm<sup>2</sup> of surface and subsurface area within the area identified as the Inshore Area. EOD units located in the NWTRC conduct underwater detonations as part of mine countermeasure training. This training is conducted at one of three locations: Crescent Harbor Underwater EOD Range, offshore from the Seaplane Base at Naval Air Station Whidbey Island; at the Floral Point Underwater EOD Range, located in Hood Canal near NAVBASE Kitsap-Bangor; and the Indian Island Underwater EOD Range, adjacent to Indian Island.

**Description of Specified Activities**

As mentioned above, the Navy has requested MMPA authorization to take marine mammals incidental to training activities in the NWTRC that would result in the generation of sound or pressure waves in the water at or above levels that NMFS has determined will likely result in take (see Acoustic Take Criteria Section), either through the use of MFAS/HFAS or the detonation of explosives in the water. These activities are discussed in the subsections below. In addition to use of active sonar sources and explosives, these activities include the operation and movement of vessels that are necessary to conduct the training, and the effects of this part of the activities are also analyzed in this document.

The Navy's application also briefly summarizes Anti-Air Warfare Training, Naval Special Warfare Training and Support Operations; however, these activities are primarily land and air based and do not utilize sound sources

or explosives for the portions that are in the water and, therefore, no take of marine mammals is anticipated from these activities and they are not discussed further.

**Activities Utilizing Active Sonar Sources**

For the NWTRC, the training activities that utilize active tactical sonar sources fall primarily into the category of Anti-submarine Warfare (ASW) exercises (MFAS/HFAS is also used in the mine avoidance exercises, which are considered Mine Warfare Training (MIW) activities; however, it is in such a small amount that impacts to marine mammals are minimal). This section includes a description of ASW, the active acoustic devices used in ASW exercises, and the exercise types in which these acoustic sources are used. Of note, the use of MFAS/HFAS in the NWTRC is minimal as compared to previous rules issued by NMFS (approximately 110 hours annual use of the most powerful surface vessel sonar versus approximately 2,500 hours annual use of AN/SQS-53C and AN/SQS-56C sonar in the Southern California Range Complex), does not include major exercises that involve the use of more than one surface vessel MFAS (AN/SQS-53C or AN/SQS-56C) at a time, and will not occur in the inshore area (*i.e.*, inland from the mouth of the Strait of Juan de Fuca).

**ASW Training and Active Sonar**

ASW involves helicopter and sea control aircraft, ships, and submarines, operating alone or in combination, to locate, track, and neutralize submarines. Various types of active and passive sonars are used by the Navy to determine water depth, locate mines, and identify, track, and target submarines. Passive sonar "listens" for

sound waves by using underwater microphones, called hydrophones, which receive, amplify and process underwater sounds. No sound is introduced into the water when using passive sonar. Passive sonar can indicate the presence, character and movement of submarines. However, passive sonar provides only a bearing (direction) to a sound-emitting source; it does not provide an accurate range (distance) to the source. Also, passive sonar relies on the underwater target itself to provide sufficient sound to be detected by hydrophones. Active sonar is needed to locate objects that emit little or no noise (such as mines or diesel-electric submarines operating in electric mode) and to establish both bearing and range to the detected contact.

Active sonar transmits pulses of sound that travel through the water, reflect off objects and return to a receiver. By knowing the speed of sound in water and the time taken for the sound wave to travel to the object and back, active sonar systems can quickly calculate direction and distance from the sonar platform to the underwater object. There are three types of active sonar: low frequency, mid-frequency, and high-frequency.

LFA sonar is not presently utilized in the NWTRC, and is not part of the Proposed Action.

MFAS, as defined in the Navy's NWTRC LOA application, operates between 1 and 10 kHz, with detection ranges up to 10 nm (19 km). Because of this detection ranging capability, MFAS is the Navy's primary tool for conducting ASW. Many ASW experiments and exercises have demonstrated that this improved capability for long range detection of adversary submarines before they are

able to conduct an attack is essential to U.S. ship survivability. Today, ASW is the Navy's number one war-fighting priority. Navies across the world utilize modern, quiet, diesel-electric submarines that pose the primary threat to the U.S. Navy's ability to perform a number of critical missions. Extensive training is necessary if Sailors, ships, and strike groups are to gain proficiency in using MFAS. If a strike group does not demonstrate MFAS proficiency, it cannot be certified as combat ready.

HFAS, as defined in the Navy's NWTRC LOA application, operates at frequencies greater than 10 kilohertz (kHz). At higher acoustic frequencies, sound rapidly dissipates in the ocean environment, resulting in short detection ranges, typically less than five nm (9 km). High-frequency sonar is used primarily for determining water depth, hunting mines and guiding torpedoes.

**Acoustic Sources Used for ASW Exercises in the NWTRC**

Modern sonar technology has developed a multitude of sonar sensor and processing systems. In concept, the simplest active sonars emit omnidirectional pulses ("pings") and time the arrival of the reflected echoes from the target object to determine range. More sophisticated active sonar emits an omni-directional ping and then rapidly scans a steered receiving beam to provide directional, as well as range, information. More advanced active sonars transmit multiple preformed beams, listening to echoes from several directions simultaneously and providing efficient detection of both direction and range. The types of active sonar sources employed during ASW active sonar training exercises in the NWTRC are identified in Table 1.

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Sonar Sources	Frequency (kHz)	Source Level (dB) re 1 µPa @ 1 m	Emission Spacing (m)*	Vertical Directivity	Horizontal Directivity	Associated Platform	System Description	Annual Amount	Unit
AN/SQS-53C	3.5	235	154	Omni	240° forward-looking	Cruiser (CG) and Destroyer (DDG) hull mounted sonar	ASW search, detection, & localization (approximately 120 pings per hour)	43	Hours
AN/SQS-56C	7.5	225	129	13°	30°	Frigate (FFG) hull mounted sonar	ASW search, detection, & localization (approximately 120 pings per hour)	65	Hours
AN/BQS-15	Classified (HF)	Classified				Submarine (SSN)	Submarine navigation and mine detection sonar	42	Hours
AN/SSQ-62 (sonobuoy, total)	8	201	450	Omni		Helicopter and maritime patrol aircraft (P3 and P8 MPA) dropped sonobuoy	Remotely commanded expendable sonar-equipped buoy (approximately 12 pings per use, 30 secs between pings, 8 buoys per hour)	886	Buoys
MK-48 torpedo sonar	Classified (>10)	Classified	144	Omni	Omni	Submarine (SSN) launched torpedo (used during SINKEX)	Recoverable and non-explosive exercise torpedo; sonar is active approximately 15 min per torpedo run	2	Torpedoes
AN/SSQ-110A (IEER)	Classified (impulsive, broadband)	Classified	n/a	Omni	Omni	MPA deployed	ASW system consists of explosive acoustic source buoy (contains two 4.1 lb charges) and expendable passive receiver sonobuoy	149	Buoys
AN/SSQ-125 (AEER)	MF	Classified	n/a	Omni	Omni	MPA deployed	ASW system consists of active sonobuoy and expendable passive receiver sonobuoy	Replaces SSQ-110A, same effects as SSQ-62	
Range Pingers	12.9	194				Ships, submarines, and ASW targets when ASW TRACKEX training is conducted on the PUTR	1-3 pingers used in each ASW exercise, average of 3 hours each during PUTR operational days	180	Hours
PUTR Uplink	8.8, 17, or 40	190				Portable Undersea Tracking Range, deployed on ocean floor	Used 10 days per month June-Aug, 5 hours/day. Deployed in at least 3m from shore in 300-12000 ft of water	150	Hours

**Table 1.** Active sonar sources in the NWTRC and parameters used for modeling them. Many of the actual parameters and capabilities of these sonars are classified. Parameters used for modeling were derived to be as representative as possible. When, however, there were a wide range of potential modeling values, a nominal parameter likely to result in the most impact was used so that the model would err towards overestimation. \*Spacing means distance between pings at the nominal speed

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ASW sonar systems are deployed from certain classes of surface ships, submarines, and fixed-wing maritime

patrol aircraft (MPA). Maritime patrol aircraft is a category of fixed-wing aircraft that includes the current P-3C

Orion, and the future P-8 Poseidon multimission maritime aircraft. No ASW helicopters train in the NWTRC. The

surface ships used are typically equipped with hull-mounted sonars (passive and active) for the detection of submarines. Fixed-wing MPA are used to deploy both active and passive sonobuoys to assist in locating and tracking submarines or ASW targets during the exercise. Submarines are equipped with passive sonar sensors used to locate and prosecute other submarines and/or surface ships during the exercise. The platforms used in ASW exercises are identified below.

**Surface Ship Sonars**—A variety of surface ships participate in training events. Of the ships that operate in the NWTRC, only two classes employ MFAS: the Fast Frigate (FFG) and the Guided Missile Destroyer (DDG). These two classes of ship are equipped with active as well as passive tactical sonars for mine avoidance and submarine detection and tracking. DDG class ships are equipped with the AN/SQS-53C sonar system (the most powerful system), with a nominal source level of 235 decibels (dB) re 1 µPa @ 1 m. The FFG class ship uses the SQS-56 sonar system, with a nominal source level of 225 decibels (dB) re 1 µPa @ 1 m. Sonar ping transmission durations were modeled as lasting 1 second per ping and omni-directional, which is a conservative assumption that will overestimate potential effects. Actual ping durations will be less than 1 second. The AN/SQS-53C hull-mounted sonar transmits at a center frequency of 3.5 kHz. The SQS-56 transmits at a center frequency of 7.5 kHz. Details concerning the tactical use of specific frequencies and the repetition rate for the sonar pings is classified but was modeled based on the required tactical training setting.

**Submarine Sonars**—Submarine active sonars are not used for ASW training in the NWTRC. However, the AN/BQS-15 sonar would be used for mine detection training. The AN/BQS-15, installed on guided missile nuclear submarines (SSGN) and fast attack nuclear submarines (SSN), uses high frequency (> 10 kHz) active sonar to locate mine shapes. A total of seven mine avoidance exercises would take place annually in the NWTRC. Each exercise would last six hours, for a total of 42 hours annually.

**Aircraft Sonar Systems**—Sonobuoys are the only aircraft sonar systems that would operate in the NWTRC. Sonobuoys are deployed by MPAs and are expendable devices used for the detection of submarines. Most sonobuoys are passive, but some can generate active acoustic signals, as well as listen passively. During ASW training, these systems' active modes are

used for localization of contacts and are not typically used in primary search capacity. The AN/SSQ-62 Directional Command Activated Sonobuoy System (DICASS) is the only MFAS sonobuoy used in the NWTRC. Because no ASW helicopters train in the NWTRC, no dipping sonar system is carried forward for any further analysis of effects.

**Extended Echo Ranging and Improved Extended Echo Ranging (EER/IEER) Systems**—EER/IEER are airborne ASW systems used to conduct "large area" searches for submarines. These systems are made up of airborne avionics ASW acoustic processing and sonobuoy types that are deployed in pairs. The EER/IEER System's active sonobuoy component, the AN/SSQ-110A Sonobuoy, generates an explosive sound impulse and a passive sonobuoy (ADAR, AN/SSQ-101A) would "listen" for the return echo that has been bounced off the surface of a submarine. These sonobuoys are designed to provide underwater acoustic data necessary for naval aircrews to quickly and accurately detect submerged submarines. The sonobuoy pairs are dropped from a maritime patrol aircraft into the ocean in a predetermined pattern with a few buoys covering a very large area. The AN/SSQ-110A Sonobuoy Series is an expendable and commandable sonobuoy. Upon command from the aircraft, the explosive charge would detonate, creating the sound impulse. Within the sonobuoy pattern, only one detonation is commanded at a time. Twelve to twenty SSQ-110A source sonobuoys are used in a typical exercise. Both charges of each sonobuoy would be detonated during the course of the training, either tactically to locate the submarine, or when the sonobuoys are commanded to scuttle at the conclusion of the exercise. The AN/SSQ-110A is listed in this table because it functions like a sonar ping, however, the source creates an explosive detonation and its effects are considered in the underwater explosive section.

**Advanced Extended Echo Ranging (AEER) System**—The proposed AEER system is operationally similar to the existing EER/IEER system. The AEER system will use the same ADAR sonobuoy (SSQ-101A) as the acoustic receiver and will be used for a large area ASW search capability in both shallow and deep water. However, instead of using an explosive AN/SQS-110A as an impulsive source for the active acoustic wave, the AEER system will use a battery powered (electronic) source for the AN/SSQ 125 sonobuoy. The output and operational parameters for the AN/SSQ-125 sonobuoy (source levels,

frequency, wave forms, etc.) are classified. However, this sonobuoy is intended to replace the EER/IEER use of explosives and is scheduled to enter the fleet in 2011. Acoustic impact analysis for the AN/SSQ-125 in this document assumes a similar per-buoy effect as that modeled for the DICASS sonobuoy. For purposes of analysis, replacement of the EER/IEER system by the AEER system will be assumed to occur at 25% per year as follows: 2011—25% replacement; 2012—50% replacement; 2013—75% replacement; 2014—100% replacement with no further use of the EER/IEER system beginning in 2015 and beyond.

**Torpedoes**—Torpedoes are the primary ASW weapon used by surface ships, aircraft, and submarines. The guidance systems of these weapons can be autonomous or electronically controlled from the launching platform through an attached wire. The autonomous guidance systems are acoustically based. They operate either passively, exploiting the emitted sound energy by the target, or actively, ensnaring the target and using the received echoes for guidance. The MK-48 submarine-launched torpedo, used in its anti-surface ship mode, was modeled for active sonar transmissions in Sinking Exercises conducted within the NWTRC.

**Portable Undersea Tracking Range**—The Portable Undersea Tracking Range (PUTR) has been developed to support ASW training in areas where the ocean depth is between 300 ft and 12,000 ft and at least 3 nm from land. This proposed project would temporarily instrument 25-square-mile or smaller areas on the seafloor, and would provide high fidelity feedback and scoring of crew performance during ASW training activities. When training is complete, the PUTR equipment would be recovered. All of the potential PUTR areas have been used for ASW training for decades.

No on-shore construction would take place. Seven electronics packages, each approximately 3 ft long by 2 ft in diameter, would be temporarily installed on the seafloor by a range boat, in water depths greater than 600 ft. The anchors used to keep the electronics packages on the seafloor would be either concrete or sand bags, approximately 1.5 ft-by-1.5 ft and 300 pounds. Each package consists of a hydrophone that receives pinger signals, and a transducer that sends an acoustic "uplink" of locating data to the range boat. The uplink signal is transmitted at 8.8 kilohertz (kHz), 17 kHz, or 40 kHz, at a source level of 190 decibels (dB). The Portable Undersea Tracking Range

system also incorporates an underwater voice capability that transmits at 8–11 kHz and a source level of 190 dB. Each of these packages is powered by a D cell alkaline battery. After the end of the battery life, the electronic packages would be recovered and the anchors would remain on the seafloor. The Navy proposes to deploy this system for 3 months of the year (approximately June–August), and to conduct TRACKEX activities for 10 days per month in an area beyond 3 nm from shore. During each of the 30 days of annual operation, the PUTR would be in use for 5 hours each day. No additional ASW activity is proposed as a result of PUTR use. Operation of this range requires that underwater participants transmit their locations via pingers and that the receiving transducers transmit that information the range boat via the Uplink transmitter (see "Range Tracking Pingers" and uplink transmitter "below").

**Range Tracking Pingers**—MK–84 range tracking pingers would be used on ships, submarines, and ASW targets when ASW TRACKEX training is conducted on the PUTR. The MK–84 pinger generates a 12.93 kHz sine wave in pulses with a maximum duty cycle of 30 milliseconds (3% duty cycle) and has a design power of 194 dB re 1 micro-Pascal at 1 meter. Although the specific exercise, and number and type of participants will determine the number of pingers in use at any time, a minimum of one and a maximum of three pingers would be used for each ASW training activity. On average, two pingers would be in use for 3 hours each during PUTR operational days.

**Uplink Transmitters**—Each package consists of a hydrophone that receives pinger signals, and a transducer that sends an acoustic "uplink" of locating data to the range boat. The uplink signal is transmitted at 8.8 kilohertz (kHz), 17 kHz, or 40 kHz, at a source level of 190 decibels (dB). The Portable Undersea Tracking Range system also incorporates an underwater voice capability that transmits at 8–11 kHz and a source level of 190 dB. Under the proposed action, the uplink transmitters would operate 30 days per year, for 5 hours each day of use. The total time of use would be 150 hours annually.

**Exercises Utilizing MFAS in the NWTRC**

ASW Tracking Exercises are the exercises that primarily utilize MFAS and HFAS sources in the NWTRC, although Mine Avoidance MIW exercises also utilize a less powerful HFAS source. ASW Tracking Exercise (TRACKEX) trains aircraft, ship, and

submarine crews in tactics, techniques, and procedures for search, detection, localization, and tracking of submarines with the goal of determining a firing solution that could be used to launch a torpedo and destroy the submarine. ASW Tracking Exercises occur during both day and night. A typical unit-level exercise involves one (1) ASW unit (aircraft, ship, or submarine) versus one (1) target—either a MK–39 Expendable Mobile ASW Training Target (EMATT), or a live submarine. The target may be non-evading while operating on a specified track or fully evasive. Participating units use active and passive sensors, including hull-mounted sonar, towed arrays, and sonobuoys for tracking. If the exercise continues into the firing of a practice torpedo it is termed a Torpedo Exercise (TORPEX). The ASW TORPEX usually starts as a TRACKEX to achieve the firing solution. No torpedoes are fired during ASW training conducted in the NWTRC. The exercise types that utilize MFAS/HFAS are described below and summarized in Table 2, which also includes a summary of the exercise types utilizing explosives.

**ASW TRACKEX (Maritime Patrol Aircraft)**—During an ASW TRACKEX (MPA), a typical scenario would involve a single MPA dropping sonobuoys, from an altitude below 3,000 ft (914 m) above mean sea level (MSL), and sometimes as low as 400 ft (122 m), into specific patterns designed for both the anticipated threat submarine and the specific water conditions. These patterns vary in size and coverage area based on the threat and water conditions.

Typically, passive sonobuoys will be used first, so the threat submarine is not alerted. Active buoys will be used as required either to locate extremely quiet submarines, or to further localize and track submarines previously detected by passive buoys. A TRACKEX (MPA) usually takes two to four hours. The P–8 Multi-mission Maritime Aircraft (MMA), a modified Boeing 737 that is the Navy's replacement for the aging P–3 Orion aircraft, is a long-range aircraft that is capable of broad-area, maritime and littoral activities. As P–8 live training is expected to be supplemented with virtual training to a greater degree than P–3 training, P–8 training activities in the NWTRC are likely to be less numerous than those currently conducted by P–3 aircraft crews. P–3 replacement is expected to begin by 2013. None of the potential marine mammal impacts associated with the P–3 aircraft are expected to differ as a result of the P–3 being replaced by the MMA.

**ASW TRACKEX (EER/IEER or AEER)**—This activity is an at-sea flying event, typically conducted below 3,000 ft (914 m) MSL, that is designed to train P–3 crews in the deployment and use of the EER/IEER (and in the future, AEER) sonobuoy systems. These systems use the SSQ–110A as the signal source and the SSQ–77 (VLAD) as the receiver buoy. The signal source is a small explosive charge that detonates underwater. The SSQ–110A sonobuoy has two charges, each being individually detonated during the exercise. This activity typically lasts six hours, with one hour for buoy pattern deployment and five hours for active search. Between 12 and 20 SSQ–110A source sonobuoys and approximately 20 SSQ–77 passive sonobuoys are used in a typical exercise.

**ASW TRACKEX (Surface Ship)**—In the PACNW OPAREA, locally based surface ships do not routinely conduct ASW Tracking exercises. However, MFAS is used during ship transits through the OPAREA. In a typical year, 24 DDG ship transits and 36 FFG transits will take place, with 1.5 hours of active sonar use during each transit. All surface ship MFAS use is documented in this training activity description. 10% of surface ship MFAS used in NWTRC is training associated with the PUTR.

**ASW TRACKEX (Submarine)**—ASW TRACKEX is a primary training exercise for locally based submarines. Training is conducted within the NWTRC and involves aircraft approximately 30% of the time. Training events in which aircraft are used typically last 8 to 12 hours. During these activities submarines use passive sonar sensors to search, detect, classify, localize and track the threat submarine with the goal of developing a firing solution that could be used to launch a torpedo and destroy the threat submarine. However, no torpedoes are fired during this training activity. All submarine ASW TRACKEX conducted in the NWTRC is passive only; therefore, these activities are not carried forward for any further analysis of effects. All aircraft ASW is analyzed under ASW TRACKEX (MPA).

**Mine Avoidance**—Mine avoidance exercises train ship and submarine crews to detect and avoid underwater mines. In the NWTRC, submarine crews will use the AN/BQS–15 high frequency active sonar to locate mine shapes in a training minefield in the PACNW OPAREA. A small-scale underwater minefield will be added in the NWTRC for these exercises. Each mine avoidance exercise involves one submarine operating the AN/BQS–15 sonar for six hours to navigate through

the training minefield. A total of seven

mine avoidance exercises will occur in the NWTRC annually.

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Exercise Type	ASW TRACKEX	Mine Avoidance	EER/IEER	MISSILEX (Air based)	GUNEX	BOMBEX	SINKEX	MIW
Anticipated Takes	Yes	No	Yes	No *	No *	Yes	Yes	No *
Explosion in or on water	No	No	Yes	No	No	Yes	Yes	Yes
Length of Exercise	1.5 hours	6 hours	6 hours	2-3 hours	2-3 hours	1 hour	8-48 hours	5 hours
Number Exercises per Year	65	7	12	28	340	30	2	4
Area Used	Pacific Northwest Surface/Subsurface OPAREA	Pacific Northwest Surface/Subsurface OPAREA	Pacific Northwest Surface/Subsurface OPAREA	Pacific Northwest Surface/Subsurface OPAREA	Pacific Northwest Surface/Subsurface OPAREA	Pacific Northwest Surface/Subsurface OPAREA	Pacific Northwest Surface/Subsurface OPAREA	EOD Crescent Harbor, EOD Indian Island, EOD Floral Point
Months of Year conducted								
Summary of exercise types in NWTRC noting duration, location, sources and explosives used, and time of year	SQS-55 (Search Mode) = 39 hrs/year SQS-56 = 58.5 hrs/year SSQ-62 DICASS = 886 sonobuoys/year MK-48 Torpedo = 2 torpedoes/yr Sonar hours, sonobuoys, torpedoes, detonations, or rounds per year	AN/BQS-15 Sonar = 42 hrs/year	SSQ-110A or AN/SSQ-125 = 149 sonobuoys/year	13 AIM-7 missiles 9 AIM-9 missiles 7 AIM-120 missiles 8 NATO Sea Sparrow or 8 Rolling Airframe Missiles	5 in gun (2,463 rounds) 20 mm (16,000 rounds) 25 mm (31,500 rounds) 57 mm (1,260 rounds) 76 mm (720 rounds) 80 caliber (117,000 rounds)	10 MK-82 Bombs (High Explosive) 110 BDU-45 Bombs (Inert)	See Narrative SINKEX section	2.5-lb NEW-4/year

Table 2. Summary of exercise types in NWTRC noting duration, location, sources and explosives used, and time of year. \* Though take is not anticipated to result from these exercises, they are included for information because they have been addressed in other rules.

**Activities Utilizing Underwater Detonations**

Underwater detonation activities can occur at various depths depending on the activity, but may also include activities which may have detonations at or just below the surface (such as SINKEX or gunnery exercise [GUNEX]). When the weapons hit the target, except for live torpedo shots, there is no explosion in the water, and so a "hit" is not modeled (*i.e.*, the energy (either acoustic or pressure) from the hit is not

expected to reach levels that would result in take of marine mammals). When a live weapon misses, it is modeled as exploding below the water surface at 1 ft (5-inch naval gunfire, 76mm rounds), 2 meters (Maverick, Harpoon, MK-82, MK-83, MK-84), or 50-ft (MK-48 torpedo) as shown in Appendix A of the Navy's application (the depth is chosen to represent the worst case of the possible scenarios as related to potential marine mammal impacts). Exercises may utilize either

live or inert ordnance of the types listed in Table 3. Additionally, successful hit rates are known to the Navy and are utilized in the effects modeling. Training events that involve explosives and underwater detonations occur throughout the year and are described below and summarized in Table 2. Of note, the only Inshore Area exercises that use explosives are on EOD ranges described under Mine Countermeasures (No more than 4 total detonations of 2.5 lb. charges annually).

	NEW lbs	TTTS		Injury		Mortality 13 psi-ms	Exclusion Zone Used (m)
		182 SEL	23 psi	205 SEL	13 psi-ms		
5" Naval gunfire	9.5	247	273	46	44	24	548
76mm rounds	1.6	102	151	21	25	13	548
Demolition	2.5	179	175	35	74	31	548
Maverick	78.5	959	554	182	191	107	1852 (SINKEX), 1645 (MISSILEX)
HARM	41.6	689	448	133	156	86	1853 (SINKEX), 1645 (MISSILEX)
Hellfire	16.4	424	327	84	112	59	1854 (SINKEX), 1645 (MISSILEX)
SLAM	164.3	1406	726	262	237	137	1855 (SINKEX), 1645 (MISSILEX)
Harpoon	448	1811	866	120	270	158	1852 (SINKEX), 1645 (MISSILEX)
MK-82	238	1723	836	315	263	153	1852 (SINKEX), 914 (BOMBEX)
MK-48	851	3469	1278	662	694	424	1852 (SINKEX), 914 (BOMBEX)
GBU-10	945	3626	1326	613	373	223	1853 (SINKEX), 914 (BOMBEX)
GBU-12	238	1712	832	315	262	153	1854 (SINKEX), 914 (BOMBEX)
GBU-16	445	2390	1054	428	310	183	1855 (SINKEX), 914 (BOMBEX)
AN/SSQ-110A (IEER)	5	325	281	72	159	77	914

**Table 3.** Representative ordnance used in NWTRC Explosive Exercises for which take of marine mammals is anticipated. Table also indicates range to indicated threshold and size of Navy exclusion zone used in mitigation. Units are meters.

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**Anti-Surface Warfare Training (ASUW)**

Anti-Surface Warfare (ASUW) is the category of activity that addresses

combat (or interdiction) activities training by air, surface, or submarine forces against hostile surface ships and boats. The ASUW exercises conducted

in NWTRC are described in the sections below. Because all of the rounds used in GUNEX in the NWTRC are inert, no take of marine mammals is anticipated to

result from the activity. However, a description is included here for comparison and clarity as NMFS has authorized take of marine mammals incidental to these activities in the past when explosive rounds were used instead of inert rounds.

**Air-to-Surface Bombing Exercise**—During an Air-to-Surface Bombing Exercise (BOMBEX A–S), fixed-wing aircraft deliver bombs against simulated surface maritime targets, typically a smoke float, with the goal of destroying or disabling enemy ships or boats. MPA use bombs to attack surfaced submarines and surface craft that would not present a major threat to the MPA itself. A single MPA approaches the target at a low altitude. In most training exercises, the aircraft drops inert training ordnance, such as the Bomb Dummy Unit (BDU–45) on a MK–58 smoke float used as the target. Historically, ordnance has been released throughout W–237 (off WA State), just south of W–237, and in international waters in accordance with international laws, rules, and regulations. Annually, 120 pieces of ordnance, consisting of 10 MK–82 live bombs and 110 BDU 45 inert bombs, are dropped in the NWTRC. In accordance with the regulations for the Olympic Coast National Marine Sanctuary (OCNMS) the Navy does not conduct live bombing in the sanctuary. Each BOMBEX A–S can take up to 4 hours to complete.

**Sinking Exercise**—A Sinking Exercise (SINKEX) is typically conducted by aircraft, surface ships, and submarines in order to take advantage of a full size ship target and an opportunity to fire live weapons. The target is typically a decommissioned combatant or merchant ship that has been made environmentally safe for sinking. In accordance with EPA permits, it is towed out to sea (at least 50 nm [92.6 km]) and set adrift at the SINKEX location in deep water (at least 1,000 fathoms [6,000 feet]) where it will not be a navigation hazard to other shipping. The Environmental Protection Agency (EPA) granted the Department of the Navy a general permit through the Marine Protection, Research, and Sanctuaries Act to transport vessels “for the purpose of sinking such vessels in ocean waters \* \* \*” (40 CFR Part 229.2). Subparagraph (a)(3) of this regulation states “All such vessel sinkings shall be conducted in water at least 1,000 fathoms (6,000 feet) deep and at least 50 nautical miles from land.”

Ship, aircraft, and submarine crews typically are scheduled to attack the target with coordinated tactics and deliver live ordnance to sink the target.

Inert ordnance is often used during the first stages of the event so that the target may be available for a longer time. The duration of a SINKEX is unpredictable because it ends when the target sinks, but the goal is to give all forces involved in the exercise an opportunity to deliver their live ordnance. Sometimes the target will begin to sink immediately after the first weapon impact and sometimes only after multiple impacts by a variety of weapons. Typically, the exercise lasts 4 to 8 hours, especially if inert ordnance such as 5-inch gun projectiles or MK–76 dummy bombs are used during the first hours. In the worst case of maximum exposure, the following ordnance are all expended (in the indicated amounts): MK82 Live Bomb (4); MK83 Live Bomb (4); MK84 Live Bomb (4); HARM Missile (2); AGM–114 Hellfire Missile (1); M–65 Maverick Missile (3); M–84 Harpoon Missile (3); AMER Missile (1); 5 in/62 Shell (500); 76 mm Shell (200); 48 ADCAP Torpedo (1). If the hulk is not sunk by weapons, it will be sunk by Explosive Ordnance Disposal (EOD) personnel setting off demolition charges previously placed on the ship. Since the target may sink at any time during the exercise, the actual number of weapons used can vary widely.

**Surface-to-Surface Gunnery Exercise**—Surface-to-Surface Gunnery Exercises (S–S GUNEX) take place in the open ocean to provide gunnery practice for Navy ship crews. Exercises can involve a variety of surface targets that are either stationary or maneuverable. Gun systems employed against surface targets include the 5”, 76 mm, 57 mm, .50 caliber and the 7.62 mm. A GUNEX lasts approximately one to two hours, depending on target services and weather conditions. All rounds fired are inert, containing no explosives.

#### Mine Warfare Training (MIW)

Mine Warfare Training includes Mine Countermeasures and Mine Avoidance. Mine Avoidance includes use of an active sonar source (although in very small amounts) and, therefore, was addressed in the appropriate section previously. Because of the location of the EOD ranges, the very limited use of explosives (4 individual explosions) proposed annually for these Mine Countermeasure exercises, and the likely effectiveness of the mitigation (e.g., marine mammal take is only expected within 180 m of the impact area, which is well within the shutdown zone of 700 yds from the point of impact), take of marine mammals is not anticipated to occur in the NWTRC. However, a description is included here

for comparison as NMFS has authorized take of marine mammals incidental to these activities in other areas where the amount of activity is significantly greater.

**Mine Countermeasures**—Naval EOD personnel require proficiency in underwater mine neutralization. Mine neutralization activities consist of underwater demolitions designed to train personnel in the destruction of mines, unexploded ordnance (UXO), obstacles, or other structures in an area to prevent interference with friendly or neutral forces and non-combatants. EOD units conduct underwater demolition training in Crescent Harbor Underwater EOD Range, Indian Island Underwater EOD Range, and Floral Point Underwater EOD Range. A 2.5 lb (1.1 kg) charge of C–4 is used, consisting of one surface or one subsurface detonation. No more than two detonations will take place annually at Crescent Harbor, and no more than one each at Indian Island and Floral Point. The total duration of the exercise is four hours for an underwater detonation and one hour for a surface detonation. Small boats such as the MK–5 Combat Rubber Raiding Craft and MK–7, or 9 (meters in length, respectively) Rigid Hull Inflatable Boats (RHIB) are used to insert personnel for underwater activities and either a helicopter (H–60) or RHIB is used for insertion for surface activities.

#### Vessel Movement

The operation and movement of vessels that is necessary to conduct the training described above is also analyzed here. Training exercises involving vessel movements occur intermittently and are variable in duration, ranging from a few hours up to 2 weeks. During training, speeds vary and depend on the specific type of activity, although 10–14 knots is considered the typical speed. Approximately 490 training activities that involve Navy vessels occur within the Study Area during a typical year. Training activities are widely dispersed throughout the large OPAREA, which encompasses 122,468 nm<sup>2</sup> (420,054 km<sup>2</sup>). Consequently, the density of Navy ships within the Study Area at any given time is low.

#### Research, Development, Testing, and Evaluation

RDT&E proposed in this action is limited to Unmanned Aerial Systems (UAS) activities, the use of which is not anticipated to result in the take of marine mammals because it utilizes small, relatively quiet airborne, not undersea, gliders. Undersea RDT&E in the Pacific Northwest is conducted at

the Naval Sea Systems Command (NAVSEA) Keyport range and is analyzed in the NAVSEA Naval Undersea Warfare Center (NUWC) Keyport Range Extension EIS/OEIS.

Additional information on the Navy’s proposed activities may be found in the LOA Application and the Navy’s NWTRC DEIS.

#### Description of Marine Mammals in the Area of the Specified Activities

The California Current passes through the NWTRC, creating a mixing of temperate and tropical waters, thereby making this area one of the most productive ocean systems in the world (Department of the Navy [DoN], 2002a). Because of this productive environment, there is a rich marine mammal fauna, as evidenced in abundance and species diversity (Leatherwood *et al.*, 1988; Bonnell and Dailey, 1993). In addition to many marine mammal species that live here year-round and use the region’s coasts and islands for breeding and hauling out, there is a community of seasonal residents and migrants. The narrow continental shelf along the Pacific coast and the presence of the cold California Current sweeping down from Alaska allows cold-water marine mammal species to reach nearshore waters as far south as Baja California.

Thirty-three marine mammal species or populations/stocks have confirmed or possible occurrence within the NWTRC, including six species of baleen whales (mysticetes), 21 species of toothed whales (odontocetes), five species of seals and sea lions (pinnipeds), and the sea otter (mustelids). Table 4 summarizes their abundance, Endangered Species Act (ESA) status, population trends, and occurrence in the area. Most of these species are listed

as “common” in the table, indicating that they occur routinely, either year-round or during annual migrations into or through the area. The other species are indicated as “rare” because of sporadic sightings or as “very rare” because they have been documented once or twice as appearing outside their normal range. All of the species that occur in the NWTRC are either cosmopolitan (occur worldwide), or associated with the temperate and sub-Arctic oceans (Leatherwood *et al.*, 1988). Seven of the species are ESA-listed and considered depleted under the MMPA: Blue whale; fin whale; humpback whale; sei whale; sperm whale; southern resident killer whale; and Steller sea lion.

Temperate and warm-water toothed whales often change their distribution and abundance as oceanographic conditions vary both seasonally (Forney and Barlow, 1998) and inter-annually (Forney, 2000). Forney and Barlow (1998) noted significant north/south shifts in distribution for Dall’s porpoises, common dolphins, and Pacific white-sided dolphins, and they identified significant inshore/offshore differences for northern right whale dolphins and humpback whales. Several authors have noted the impact of the El Niño events of 1982/1983 and 1997/1998 on marine mammal occurrence patterns and population dynamics in the waters off California (Wells *et al.*, 1990; Forney and Barlow, 1998; Benson *et al.*, 2002).

The distribution of some marine mammal species is based on the presence of salmon, an important prey source. Seals and sea lions congregate near areas where migrating salmon run. For example, in the San Juan Islands, harbor seals (*Phoca vitulina richardii*)

congregate near a constricted channel where incoming tidal currents funnel migrating salmon (Zamon, 2001). In Oregon, harbor seals wait for chum salmon runs during the incoming tide near a constriction in Netarts Bay (Brown and Mat, 1983). During the summer, southern resident killer whales (*Orcinus orca*) congregate at locations associated with high densities of migrating salmon (Heimlich-Boran, 1986; Nichol and Shackleton, 1996; Olson, 1998; National Marine Fisheries Service [NMFS], 2005i). Their strong preference for Chinook salmon may influence the year-round distribution patterns of southern resident killer whales in the NWTRC (Ford and Ellis, 2005).

The Navy has compiled information on the abundance, behavior, status and distribution, and vocalizations of marine mammal species in the NWTRC waters from the Navy Marine Resource Assessment for NWTRC (which was recently updated, during the development of the application for this rule, based on peer-reviewed literature and government reports such as NMFS’ Stock Assessment Reports) and marine mammal experts engaged in current research utilizing tagging and tracking. This information may be viewed in the Navy’s LOA application and/or the Navy’s DEIS for NWTRC (*see* Availability), and is incorporated by reference herein. Included below, however, are summaries of some important biological issues that are needed to further inform the MMPA effects analysis. Additional information is available in NMFS Stock Assessment Reports, which may be viewed at: <http://www.nmfs.noaa.gov/pr/sars/species.htm>.

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Common Name	Abundance (CV)	Stock	Calculated Density (animals per km <sup>2</sup> )	Population Trend	Occurrence	Warm Season (May-Oct)	Cold Season (Nov-Apr)
<b>ESA Listed Baleen Whales</b>							
Blue whale <sup>2,3</sup>	1,186 (0.19)	Eastern North Pacific	0.0005 <sup>2</sup>	May be increasing	Common	Yes	No
<i>Balaenoptera musculus</i>							
Fin whale <sup>2,3</sup>	3454 (0.27)	California, Oregon, and Washington	0.0014 <sup>2</sup>	May be increasing	Common	Yes	Yes
<i>Balaenoptera physalus</i>							
Humpback whale <sup>2,3</sup>	1,396 (0.15)	Eastern North Pacific	0.0007 <sup>2</sup>	Increasing	Common	Yes	No
<i>Megaptera novaeangliae</i>							
Sei whale <sup>2,3</sup>	43 (0.61)	Eastern North Pacific	0.000115 <sup>2</sup> 0.000182 <sup>2</sup>	May be increasing	Common	Yes	No
<i>Balaenoptera borealis</i>							
<b>ESA Listed Toothed Whales</b>							
Sperm whale <sup>2,3</sup>	2,265 (0.34)	California, Oregon, and Washington, Offshore	0.0026 <sup>2</sup>	Unknown	Common	Yes	Yes
<i>Physeter macrocephalus</i>							
Southern resident killer whale <sup>2</sup>	89	Eastern North Pacific, Southern Resident	0.00055/00162	possibly decreasing	Common	Yes	Yes
<i>Orcinus orca</i>							
<b>ESA Listed Pinnipeds</b>							
Steller sea lion <sup>4</sup>	48,519	Eastern	0.000011 / 0.011 <sup>3</sup>	possibly increasing	Common	Yes	Yes
<i>Eumetopias jubatus</i>							
<b>Non-ESA Listed Baleen Whales</b>							
Gray whale	18,178	Eastern North Pacific	--	Increasing	Common	No	Yes
<i>Eschschichius robustus</i>							
Minke whale	898 (0.65)	California, Oregon, and Washington	0.000655 <sup>2</sup> 0.000395 <sup>2</sup>	No trends	Common	No	Yes
<i>Balaenoptera acutorostrata</i>							
<b>Non-ESA Listed Toothed Whales</b>							
Baird's beaked whale	313 (0.55)	California, Oregon, and Washington	0.001614 <sup>2</sup> 0.000775 <sup>2</sup>	Unknown	Common	Yes	Yes
<i>Berardius bairdii</i>							
Bottlenose dolphin offshore	3,257 (0.43)	California, Oregon, Washington, Offshore	0.000515 <sup>2</sup>	No trend	Very Rare	Yes	Yes
<i>Tursiops truncatus</i>							
Cuvier's beaked whale	2,171 (0.73)	California, Oregon, and Washington	0.003038 <sup>2</sup>	Unknown	Common	Yes	Unknown
<i>Ziphius cavirostris</i>							
Dall's porpoise	57,549 (0.34)	California, Oregon, and Washington	0.0970 <sup>2</sup>	Unknown	Common	No	Yes
<i>Phocoenoides dalli</i>							
Dwarf sperm whale	unknown	California, Oregon, and Washington	--	Unknown	Very Rare	Unknown	Yes
<i>Agororhinus roboratus</i>							
Harbor porpoise	17,763 (0.39)	Northern California/ Southern Oregon	--	Stable	Common	Yes	Yes
<i>Phocoena phocoena</i>							
	37,745 (0.38)	Washington/ Oregon Coastal	--	Stable			
	10,682 (0.38)	Washington Inland Waters	--	Stable			
Killer whale offshore	422	Eastern North Pacific Offshore	.00055/00162	Unknown	Common	No	Yes
<i>Orcinus orca</i>							
Killer whale transient	346	Eastern North Pacific Transient	.00055/00162	Unknown	Common	No	Yes
<i>Orcinus orca</i>							
Mesoplodon beaked whales <sup>2</sup>	1,024 (0.77)	Washington, Oregon, and California	0.00135 <sup>2</sup> 0.001321 <sup>4</sup>	Unknown	Rare	Unknown	Unknown
<i>Mesoplodon sp.</i>							
Northern right whale dolphin	15,305 (0.232)	California, Oregon, and Washington	0.0014 <sup>2</sup>	No trend	Common	Yes	Yes
<i>Lissodelphis borealis</i>							
Pacific white-sided dolphin	25,233 (0.25)	California, Oregon, and Washington	0.0441 <sup>2</sup>	No trend	Common	Yes	Yes
<i>Lagenorhynchus obliquidens</i>							
<b>Non-ESA Listed Toothed Whales (continued)</b>							
Pygmy sperm whale	Unknown	California, Oregon, and Washington	0.001232 <sup>2</sup> 0.000504 <sup>2</sup>	Unknown	Common	Unknown	Unknown
<i>Ziphius cavirostris</i>							
Risso's Dolphin	12,093 (0.24)	California, Oregon, and Washington	0.013222 <sup>2</sup> 0.004014 <sup>2</sup>	No trend	Common	Yes	Yes
<i>Grampus griseus</i>							
Short-beaked common dolphin	48,622 (0.26)	California, Oregon, and Washington	0.1570 <sup>2</sup>	Varies by oceanographic	Common	Yes	Yes
<i>Delphinus delphis</i>							
Short-finned pilot whale	245 (0.97)	California, Oregon, and Washington	--	Unknown	Rare	Unknown	Unknown
<i>Coffinophala macrorhynchus</i>							
Striped dolphin	23,883 (0.44)	California, Oregon, and Washington	0.0000497 <sup>2</sup> 0.014653 <sup>2</sup>	No trend	Rare	No	Unknown
<i>Stenella coeruleoalba</i>							
<b>Non-ESA Listed Pinnipeds</b>							
California sea lion	238,000	U.S.	--	Increasing	Common	Yes	Yes
<i>Zalophus californianus</i>							
Harbor seal	24,233 (0.12)	California	--	Increasing			
	24,732 (0.12)	Washington/ Oregon Coastal	--	Stable	Common	Yes	Yes
	14,612 (0.15)	Washington Inland	--	Stable			
Northern elephant seal	124,000	California Breeding	--	Increasing	Common	Yes	Yes
<i>Mirounga angustirostris</i>							
Northern fur seal	721,935	Eastern Pacific	--	Increasing	Common	Yes	Yes
<i>Callorhinus ursinus</i>							

Table 4. Marine mammals of known occurrence in the NWTRC.

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Species Not Considered Further

The North Pacific right whale is classified as endangered under the ESA. Although there is designated critical habitat for this species in the western Gulf of Alaska and an area in the

southeastern Bering Sea (NMFS, 2006), there is no designated critical habitat for this species within the NWTRC. Census data are too limited to suggest a population trend for this species. In the western North Pacific, the population may number in the low hundreds (Brownell *et al.*, 2001; Clapham *et al.*,

2004). The eastern population likely now numbers in the tens of animals. Right whales were probably never common along the west coast of North America (Scarff, 1986; Brownell *et al.*, 2001). Historical whaling records provide the most complete information on likely North Pacific right whale

distribution. Presently, sightings are extremely rare, occurring primarily in the Okhotsk Sea and the eastern Bering Sea (Brownell *et al.*, 2001; Shelden *et al.*, 2005; Shelden and Clapham, 2006; Wade *et al.*, 2006). There were no sightings of North Pacific right whales during ship surveys conducted off California, Oregon, and Washington from 1991 through 2005 (Barlow and Forney, 2007), although recent deployment of directional sonobuoys (focused on the gunshot call) in the southeastern Bering Sea has resulted in multiple recordings of the rarely detected marine mammals (Berchok *et al.*, 2009). The area of densest concentration in the Gulf of Alaska is east from 170° W to 150° W and south to 52° N (Shelden and Clapham, 2006). Based upon the extremely low probability of encountering this species anywhere in the coastal and offshore waters in the NWTRC, this species will not be included in this analysis.

Designated Critical Habitat

Southern Resident Killer Whale

NMFS designated critical habitat for the southern resident killer whale (*Orcinus orca*) distinct population segment (DPS). Three specific areas (which comprise approximately 2,560 square miles (6,630 sq km) of marine habitat) are designated:

(1) *The Summer Core Area in Haro Strait and waters around the San Juan Islands*—Occurrence of Southern Residents in Area 1 coincides with concentrations of salmon, and is more consistent and concentrated in the summer months of June through August, though they have been sighted in Area 1 during every month of the year;

(2) *Puget Sound*—southern resident killer whale occurrence in Area 2 has been correlated with fall salmon runs; and

(3) *The Strait of Juan de Fuca*—All pods regularly use the Strait of Juan de Fuca for passage from Areas 1 and 2 to outside waters in the Pacific Ocean and to access outer coastal water feeding grounds.

The designated physical and biological features which are essential to the conservation of southern resident killer whales and that may require special management considerations or protection (Primary Constituent Elements/PCEs) are as follows:

(1) *Water quality to support growth and development*—Because of their long life span, position at the top of the food chain, and their blubber stores, southern resident killer whales accumulate high concentrations of contaminants;

(2) *Prey species of sufficient quantity, quality and availability to support individual growth, reproduction and development, as well as overall population growth*—Fish are the major dietary component of southern resident killer whales in the northeastern Pacific. Salmon comprise the southern resident killer whales' preferred prey, and are likely consumed in large amounts; and

(3) *Passage conditions to allow for migration, resting, and foraging*—In order to move between important habitat areas, find prey, and fulfill their life history requirements, southern resident killer whales require open waterways that are free from obstruction.

As noted previously, the Navy's proposed action does not include the use of MFAS/HFAS in southern resident killer whale critical habitat, and explosive use is limited to four detonations of 2.5-lb charges annually in EOD exercises.

Steller Sea Lion

In California and Oregon, major Steller sea lion rookeries and associated air and aquatic zones are designated as critical habitat. Critical habitat includes an air zone extending 3,000 ft above rookery areas historically occupied by sea lions and an aquatic zone extending 3,000 seaward. Three rookeries located along the southern Oregon Coast have been designated as critical habitat sites in the NWTRC. These include: Orford Reef (Long Brown Rock); Oxord Reef (Seal Rock); Rogue Reef (Pyramid Rock). The PCEs for Steller sea lions are: Nearshore waters around rookeries and haulouts and prey resources and foraging habitats.

Gray Whale Migration

The gray whale makes a well-defined seasonal north-south migration. Most of the population summers in the shallow waters of the northern Bering Sea, the Chukchi Sea, and the western Beaufort Sea (Rice and Wolman, 1971), whereas some individuals also summer along the Pacific coast from Vancouver Island to central California (Rice and Wolman, 1971; Darling 1984; Nerini, 1984). In October and November, the whales begin to migrate southeast through Unimak Pass and follow the shoreline south to breeding grounds on the west coast of Baja California and the southeastern Gulf of California (Braham, 1984; Rugh, 1984). The average gray whale migrates 7,500–10,000 km at a rate of 147 km/d (Rugh *et al.*, 2001; Jones and Swartz, 2002). Although some calves are born along the coast of California, most are born in the shallow, protected waters on the Pacific coast of

Baja California from Morro de Santo Domingo (28° N) south to Isla Cresiente (24° N) (Urban *et al.*, 2003). The main calving sites are Laguna Guerrero Negro, Laguna Ojo de Liebre, Laguna San Ignacio, and Estero Soledad (Rice *et al.*, 1981).

Gray whales occur in the Pacific Northwest OPAREA and Puget Sound throughout the year. In addition, larger numbers of migratory animals transit along the coast of Washington, Oregon, and California during migrations between breeding and feeding grounds. Peak sightings in the NWTRC during the southbound migration occur in January (Rugh *et al.*, 2001). There are two phases of the northbound migration, including an early phase from mid-February through April and a later phase, which consists of mostly cows and calves, from late April through May (Herzing and Mate, 1984).

Marine Mammal Hearing and Vocalizations

Cetaceans have an auditory anatomy that follows the basic mammalian pattern, with some changes to adapt to the demands of hearing in the sea. The typical mammalian ear is divided into an outer ear, middle ear, and inner ear. The outer ear is separated from the inner ear by a tympanic membrane, or eardrum. In terrestrial mammals, the outer ear, eardrum, and middle ear transmit airborne sound to the inner ear, where the sound waves are propagated through the cochlear fluid. Since the impedance of water is close to that of the tissues of a cetacean, the outer ear is not required to transduce sound energy as it does when sound waves travel from air to fluid (inner ear). Sound waves traveling through the inner ear cause the basilar membrane to vibrate. Specialized cells, called hair cells, respond to the vibration and produce nerve pulses that are transmitted to the central nervous system. Acoustic energy causes the basilar membrane in the cochlea to vibrate. Sensory cells at different positions along the basilar membrane are excited by different frequencies of sound (Pickles, 1998). Baleen whales have inner ears that appear to be specialized for low-frequency hearing. Conversely, dolphins and porpoises have ears that are specialized to hear high frequencies.

Marine mammal vocalizations often extend both above and below the range of human hearing; vocalizations with frequencies lower than 18 Hertz (Hz) are labeled as infrasonic and those higher than 20 kHz as ultrasonic (National Research Council [NRC], 2003; Figure 4–1). Measured data on the hearing

abilities of cetaceans are sparse, particularly for the larger cetaceans such as the baleen whales. The auditory thresholds of some of the smaller odontocetes have been determined in captivity. It is generally believed that cetaceans should at least be sensitive to the frequencies of their own vocalizations. Comparisons of the anatomy of cetacean inner ears and models of the structural properties and the response to vibrations of the ear's components in different species provide an indication of likely sensitivity to various sound frequencies. The ears of small toothed whales are optimized for receiving high-frequency sound, while baleen whale inner ears are best in low to infrasonic frequencies (Ketten, 1992; 1997; 1998).

Baleen whale vocalizations are composed primarily of frequencies below 1 kHz, and some contain fundamental frequencies as low as 16 Hz (Watkins *et al.*, 1987; Richardson *et al.*, 1995; Rivers, 1997; Moore *et al.*, 1998; Stafford *et al.*, 1999; Wartzok and Ketten, 1999) but can be as high as 24 kHz (humpback whale; Au *et al.*, 2006). Clark and Ellison (2004) suggested that baleen whales use low frequency sounds not only for long-range communication, but also as a simple form of echo ranging, using echoes to navigate and orient relative to physical features of the ocean. Information on auditory function in mysticetes is extremely lacking. Sensitivity to low-frequency sound by baleen whales has been inferred from observed vocalization frequencies, observed reactions to playback of sounds, and anatomical analyses of the auditory system. Although there is apparently much variation, the source levels of most baleen whale vocalizations lie in the range of 150–190 dB re 1  $\mu$ Pa at 1 m. Low-frequency vocalizations made by baleen whales and their corresponding auditory anatomy suggest that they have good low-frequency hearing (Ketten, 2000), although specific data on sensitivity, frequency or intensity discrimination, or localization abilities are lacking. Marine mammals, like all mammals, have typical U-shaped audiograms that begin with relatively low sensitivity (high threshold) at some specified low frequency with increased sensitivity (low threshold) to a species specific optimum followed by a generally steep rise at higher frequencies (high threshold) (Fay, 1988).

The toothed whales produce a wide variety of sounds, which include species-specific broadband “clicks” with peak energy between 10 and 200 kHz, individually variable “burst pulse”

click trains, and constant frequency or frequency-modulated (FM) whistles ranging from 4 to 16 kHz (Wartzok and Ketten, 1999). The general consensus is that the tonal vocalizations (whistles) produced by toothed whales play an important role in maintaining contact between dispersed individuals, while broadband clicks are used during echolocation (Wartzok and Ketten, 1999). Burst pulses have also been strongly implicated in communication, with some scientists suggesting that they play an important role in agonistic encounters (McCowan and Reiss, 1995), while others have proposed that they represent “emotive” signals in a broader sense, possibly representing graded communication signals (Herzing, 1996). Sperm whales, however, are known to produce only clicks, which are used for both communication and echolocation (Whitehead, 2003). Most of the energy of toothed whales social vocalizations is concentrated near 10 kHz, with source levels for whistles as high as 100–180 dB re 1  $\mu$ Pa at 1 m (Richardson *et al.*, 1995). No odontocete has been shown audiometrically to have acute hearing (<80 dB re 1  $\mu$ Pa) below 500 Hz (DoN, 2001). Sperm whales produce clicks, which may be used to echolocate (Mullins *et al.*, 1988), with a frequency range from less than 100 Hz to 30 kHz and source levels up to 230 dB re 1  $\mu$ Pa 1 m or greater (Mohl *et al.*, 2000).

Table 5 includes a summary of the vocalizations of the species found in the NWTRC. The “Brief Background on Sound” section contained a description of the functional hearing groups designated by Southall *et al.* (2007), which includes the functional hearing range of various marine mammal groups (*i.e.*, what frequencies that can actually hear).

#### Marine Mammal Density Estimates

Understanding the distribution and abundance of a particular marine mammal species or stock is necessary to analyze the potential impacts of an action on that species or stock. Further, in order to assess quantitatively the likely acoustic impacts of a potential action on individuals and to estimate take it is necessary to know the density of the animals in the affected area. Density estimates for cetaceans were obtained from the Marine Mammal and Sea Turtle Density Estimates for the Pacific Northwest Study Area (DoN, 2007a). The abundance of most cetaceans was derived from shipboard surveys conducted by the Southwest Fisheries Science Center in 1991, 1993, 1996, 2001, and 2005 (Barlow, 1995; Barlow, 2003; Barlow and Forney, 2007). These estimates are used to

develop NMFS Stock Assessment Reports (Garretta *et al.*, 2007); interpret the impacts of human-caused mortality associated with fishery bycatch, ship strikes, and other sources; and evaluate the ecological role of cetaceans in the eastern North Pacific. In the density study, predictive species-habitat models were built for species with sufficient numbers of sightings to estimate densities for the NWTRC (described in detail Appendix B of the Navy's application). For species with insufficient numbers of sightings, density estimates were obtained from Barlow and Forney (2007).

There are limited depth distribution data for most marine mammals. This is especially true for cetaceans, as they must be tagged at-sea and by using a tag that either must be implanted in the skin/blubber in some manner or adhere to the skin. There is slightly more data for some pinnipeds, as they can be tagged while on shore during breeding or molting seasons and the tags can be glued to the pelage rather than implanted. There are a few different methodologies/techniques that can be used to determine depth distribution percentages, but by far the most widely used technique currently is the time-depth recorder. These instruments are attached to the animal for a fairly short period of time (several hours to a few days) via a suction cup or glue, and then retrieved immediately after detachment or when the animal returns to the beach. Depth information can also be collected via satellite tags, sonic tags, digital tags, and, for sperm whales, via acoustic tracking of sounds produced by the animal itself.

There are somewhat suitable depth distribution data for a few marine mammal species. Sample sizes are usually extremely small, nearly always fewer than 10 animals total and often only one or two animals. Depth distribution information often must be interpreted from other dive and/or preferred prey characteristics. Depth distributions for species for which no data are available are extrapolated from similar species.

Density is nearly always reported for an area, *e.g.*, animals/km<sup>2</sup>. Analyses of survey results using Distance Sampling techniques include correction factors for animals at the surface but not seen as well as animals below the surface and not seen. Therefore, although the area (*e.g.*, km<sup>2</sup>) appears to represent only the surface of the water (two-dimensional), density actually implicitly includes animals anywhere within the water column under that surface area. Density assumes that animals are uniformly distributed within the prescribed area,

even though this is likely rarely true. Marine mammals are usually clumped in areas of greater importance (and often in groups), for example, areas of high productivity, lower predation, safe calving, *etc.* Density can occasionally be calculated for smaller areas that are used regularly by marine mammals, but more often than not there are insufficient data to calculate density for small areas. Therefore, assuming an even distribution within the prescribed area remains the norm.

Assuming that marine mammals are distributed evenly within the water column is not accurate. The ever-expanding database of marine mammal behavioral and physiological parameters obtained through tagging and other technologies has demonstrated that marine mammals use the water column in various ways, with some species capable of regular deep dives (<800 m) and others regularly diving to <200 m, regardless of the bottom depth. Assuming that all species are evenly distributed from surface to bottom is

almost never appropriate and can present a distorted view of marine mammal distribution in any region.

By combining marine mammal density with depth distribution information, a more accurate three-dimensional density estimate is possible. These 3-D estimates allow more accurate modeling of potential marine mammal exposures from specific noise sources. Density estimates are included in Table 4.

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Species	Signal Type	Frequency Range (kHz)	Frequency Near Max energy (kHz)	Source Level (dB re 1 µPa)	Duration / Other
Blue whale	moans, long duration songs	0.012 - .4	.012 - .025	188	up to 36 s, repeated every 1 - 2 min
	FM sweeps	0.858 + 0.148			< 5 s
	vocalizations	0.012 - .4	.012 - .025		
Fin whale	vocalizations	-. / .015 - .028	-. / -	159-184 / 185-192	
	moans	0.016 - 0.75	0.02	160-190	
	pulses	0.04 - 0.075 / 0.018 -	-. / 0.02		
	ragged pulse	< 0.03			
	rumbles	-. / 0.01 - 0.03	< 0.03 / -		
	moans, downsweeps	0.014 - 0.118	0.02	160-186	
	constant call	0.02 - 0.04			
	moans, tones, upsweeps	0.03 - 0.75		155-165	
	whistles, chirps	1.5 - 5	1.5 - 2.5		
	clicks	16 - 28			
	vocal sequence, ♂ only	0.015 - 0.03			
	FM sweeps	0.018 - .23		184 - 186	1 s
Humpback whale	social	.020 - 10 / 0.05 - 10	< 3 / 0.1 - 4		
	songs	0.03 - 8 / -	0.12 - 4 / -	144 - 186 / 151-173	
	shrieks		0.75 - 1.8	179-181	
	horn blasts		0.41 - 0.42	181-185	
	moans	0.02 - 1.8	0.035 - 0.36	175	
	grunts	0.025 - 1.9		190	
	pulse trains	0.025 - 1.25	0.025 - 0.080	179-181	
	slap	0.03 - 1.2		183-192	
	feeding calls	0.02 - 2	0.5	162-192	< 1 s
	simple vocalization	0.14 - 4	0.22 (mean)		
	Sei whale	FM sweeps	1.5 - 3.5		
growls, whooshes, tonal calls		0.433		156	.45 s
growls and whooshes		0.241 - 0.625		152.4 - 159.6	
Gray whale	broadband signals	0.1 - 12			
	call	0.2 - 2.5	1 - 1.5		
	moans	0.02 - 1.2 / -	0.2 - 0.2 / 0.7 - 1.	185 / -	
	modulated pulse	0.08 - 1.8	0.225 - 0.6		
	FM sweeps	0.10 - 0.35	0.3		
Gray whale, Calf	pulses	0.1 - 2	0.3 - 0.825		
	clicks	0.1 - 20	3.4 - 4		
Minke whale	sweeps, moans	0.06 - 0.14		151-175	
	down sweeps	0.06 - 0.13		165	
	moans, grunts	0.06 - 0.14	0.06 - 0.14	151-175	
	ratchet	0.85 - 6	0.85		
	thump trains	0.1 - 2	0.1 - 0.2		
	speed up pulse train	0.2 - 0.4			40 to 60 ms
	slow down pulse train	0.25 - 0.35			70 to 140 ms
	Star Wars vocalization	0.05 - 9.4		150-165	
	Breeding Boings (pulse then amp-mod. call)	1.3 - 1.4			2.5 s with slight frequency modulation
	vocalizations	0.06 - 12			

Table 5a. Summary of mysticete vocalization information compiled from The Biology of Marine Mammals (Reynolds and Rommel (eds), 1999) and the Navy's SOCAL, AFAST, HRC, and NWTRC EISs - see those documents for specific information.

Species	Signal Type	Frequency Range (kHz)	Frequency Near Max energy	Source Level (dB re 1 µPa)	Duration / Other	
Sperm whale	clicks	0.1 - 30	2 - 4, 10 - 16	160 - 180	< 30 ms	
	short clicks			236	< 1 µs, highly directional	
	trumpets			172		
Sperm (Neonate)	clicks		0.5	140 - 162	< 2 to 12 ms, low directionality	
S. Resident Killer Whale	whistles	1.5 - 18	6 - 12			
	clicks	0.1 - 35 / 0.25 - 0.5	12 - 25	180		
	scream	2				
	pulsed calls	0.5 - 25	1 - 6	160		
	echolocation clicks			45 - 80	195 - 224	< 80 - 120 µs
Bottlenose dolphin	echolocation clicks			22 - 49	173 - 202	< 31 - 203 µs
	whistles	0.8 - 24	3.5 - 14.5	125-173		
	whistle	4 - 20				
	click	0.2 - 150	30 - 60			
	click		110 - 130	218 - 228		
Northern right whale dolphin	clicks and burst-pulses	110 - 130		218 - 228		
	bark	0.2 - 16				
	clicks high repetition		170			
Pacific white-sided dolphin	echolocation clicks	23 - 41				
	whistles, tones	16-Jan	1.8, 3			
	whistles	.002 - .02	12-Apr			
Risso's dolphin	pulse trains for echolocation	-. / -	50 - 80 / 60 - 80	170 / 180		
	whistles		3.5 - 4.5			
	rasp / pulse burst	0.1 - > 8	2 - 5			
Common dolphin	click		65		< 1 sec to several s	
	whistle / burst	4 - 22		~120		
	broadband clicks	6 - > 22				
	narrowband grunts	0.4 - 0.8				
	echolocation clicks	30 - 50, 80 - 100		up to 216		
	echolocation clicks		50 - 65	up to 222	< 40 - 70 µs	
	whistles, chirps		0.5 - 18			
Striped dolphin	whistles	4 - 16		180		
	click	0.2 - 150	30 - 60	170		
	clicks		23 - 67			
	chips and barks	0.5 - 14				
	whistles	2 - 18		180		
Dall's porpoise	whistles	1 - 22.5	6.8 - 16.9	109-125		
	whistles	6 - 24	8 - 12.5			
	pulse bursts	wideband	5 - 60	108-115		
Harbor Porpoise	clicks	0.04 - 12 / -	120 - 160	120 - 148 / 165-175	50 to 1,500 µsec	
	clicks		-. / 135 - 149			
Short-finned pilot whale	clicks	2		100		
	click		110-150	135-177		
	pulse	100-160	110-150			
Dwarf sperm w.	whistles	0.5 - > 20	2 to 14	180		
	click		30 - 60	180		
Pygmy sperm whale	clicks	13-33			0.3 - 0.5 s	
	clicks	60 - 200	120			
	narrowband pulses		129	175	119 µs, interclick intervals 40-70 ms	
Baird's beaked whale	echolocation clicks	60 - 200	120 - 130			
	social	3 - 129				
	social	0.002 - 0.016				
Cuvier's beaked whale	echolocation clicks	20 - 40, 20 - 70		214	< 200 to 250 µs, depths > 200 m	
	whistles	8 - 12			upsweep lasts 1 s	
	pulses	13 - 17			15 to 44 s	
N. elephant seal	communication	.100 - 1				
	clicks	8 - 150	12 - 40			
	roar	0.4 - 4	0.4 - 0.8			
	growl, grunt, groan	< 0.1 - 0.4	< 0.1 - 0.25			
	tweak	0.7 - 4	0.7 - 2			
California sea lion	barks	< 8	< 3.5			
	whimpy	< 1 - 3				
	clicks		0.5 - 4			
	buzzing	< 1 - 4	< 1			
Northern fur seal	clicks, bleats					
	Steller Sea Lion					

Table 5b. Summary of odontocete and pinniped vocalization information compiled from The Biology of Marine Mammals (Reynolds and Rommel (eds), 1999) and the Navy's SOCAL, AFAST, HRC, and NWTRC EISs - see those documents for specific information.

**Brief Background on Sound**

An understanding of the basic properties of underwater sound is necessary to comprehend many of the concepts and analyses presented in this document. A summary is included below.

Sound is a wave of pressure variations propagating through a medium (for the MFAS/HFAS considered in this proposed rule, the medium is marine water). Pressure variations are created by compressing and relaxing the medium. Sound measurements can be expressed in two forms: Intensity and pressure. Acoustic intensity is the average rate of energy transmitted through a unit area in a specified direction and is expressed in watts per square meter ( $W/m^2$ ). Acoustic intensity is rarely measured directly, it is derived from ratios of pressures; the standard reference pressure for underwater sound is 1 microPascal ( $\mu Pa$ ); for airborne sound, the standard reference pressure is 20  $\mu Pa$  (Richardson *et al.*, 1995).

Acousticians have adopted a logarithmic scale for sound intensities, which is denoted in decibels (dB). Decibel measurements represent the ratio between a measured pressure value and a reference pressure value (in this case 1  $\mu Pa$  or, for airborne sound, 20  $\mu Pa$ ). The logarithmic nature of the scale means that each 10 dB increase is a tenfold increase in power (e.g., 20 dB is a 100-fold increase, 30 dB is a 1,000-fold increase). Humans perceive a 10-dB increase in noise as a doubling of loudness, or a 10 dB decrease in noise as a halving of loudness. The term "sound pressure level" implies a decibel measure and a reference pressure that is used as the denominator of the ratio. Throughout this document, NMFS uses 1 microPascal (denoted re:  $\mu Pa$ ) as a standard reference pressure unless noted otherwise.

It is important to note that decibels underwater and decibels in air are not the same and cannot be directly compared. To estimate a comparison between sound in air and underwater, because of the different densities of air and water and the different decibel standards (i.e., reference pressures) in water and air, a sound with the same intensity (i.e., power) in air and in water would be approximately 63 dB quieter in air. Thus a sound that is 160 dB loud underwater would have the same approximate effective intensity as a sound that is 97 dB loud in air.

Sound frequency is measured in cycles per second, or Hertz (abbreviated Hz), and is analogous to musical pitch; high-pitched sounds contain high frequencies and low-pitched sounds

contain low frequencies. Natural sounds in the ocean span a huge range of frequencies: From earthquake noise at 5 Hz to harbor porpoise clicks at 150,000 Hz (150 kHz). These sounds are so low or so high in pitch that humans cannot even hear them; acousticians call these infrasonic (typically below 20 Hz) and ultrasonic (typically above 20,000 Hz) sounds, respectively. A single sound may be made up of many different frequencies together. Sounds made up of only a small range of frequencies are called "narrowband", and sounds with a broad range of frequencies are called "broadband"; explosives are an example of a broadband sound source and active tactical sonars are an example of a narrowband sound source.

When considering the influence of various kinds of sound on the marine environment, it is necessary to understand that different kinds of marine life are sensitive to different frequencies of sound. Based on available behavioral data, audiograms derived using auditory evoked potential (AEP) techniques, anatomical modeling, and other data, Southall *et al.* (2007) designate "functional hearing groups" for marine mammals and estimate the lower and upper frequencies of functional hearing of the groups. Further, the frequency range in which each group's hearing is estimated as being most sensitive is represented in the flat part of the M-weighting functions developed for each group. The functional groups and the associated frequencies are indicated below (though, again, animals are less sensitive to sounds at the outer edge of their functional range and most sensitive to sounds of frequencies within a smaller range somewhere in the middle of their functional hearing range):

- Low frequency cetaceans (13 species of mysticetes): Functional hearing is estimated to occur between approximately 7 Hz and 22 kHz;
- Mid-frequency cetaceans (32 species of dolphins, six species of larger toothed whales, and 19 species of beaked and bottlenose whales): Functional hearing is estimated to occur between approximately 150 Hz and 160 kHz;
- High frequency cetaceans (eight species of true porpoises, six species of river dolphins, Kogia, the franciscana, and four species of cephalorhynchids): Functional hearing is estimated to occur between approximately 200 Hz and 180 kHz;
- *Pinnipeds in Water*: Functional hearing is estimated to occur between approximately 75 Hz and 75 kHz, with

the greatest sensitivity between approximately 700 Hz and 20 kHz.

Because ears adapted to function underwater are physiologically different from human ears, comparisons using decibel measurements in air would still not be adequate to describe the effects of a sound on a whale. When sound travels away from its source, its loudness decreases as the distance traveled (propagates) by the sound increases. Thus, the loudness of a sound at its source is higher than the loudness of a sound on a kilometer distant. Acousticians often refer to the loudness of a sound at its source (typically measured one meter from the source) as the source level and the loudness of sound elsewhere as the received level. For example, a humpback whale three kilometers from an airgun that has a source level of 230 dB may only be exposed to sound that is 160 dB loud, depending on how the sound propagates (in this example, it is spherical spreading). As a result, it is important not to confuse source levels and received levels when discussing the loudness of sound in the ocean or its impacts on the marine environment.

As sound travels from a source, its propagation in water is influenced by various physical characteristics, including water temperature, depth, salinity, and surface and bottom properties that cause refraction, reflection, absorption, and scattering of sound waves. Oceans are not homogeneous and the contribution of each of these individual factors is extremely complex and interrelated. The physical characteristics that determine the sound's speed through the water will change with depth, season, geographic location, and with time of day (as a result, in actual MFAS/HFAS operations, crews will measure oceanic conditions, such as sea water temperature and depth, to calibrate models that determine the path the sonar signal will take as it travels through the ocean and how strong the sound signal will be at a given range along a particular transmission path). As sound travels through the ocean, the intensity associated with the wavefront diminishes, or attenuates. This decrease in intensity is referred to as propagation loss, also commonly called transmission loss.

**Metrics Used in This Document**

This section includes a brief explanation of the two sound measurements (sound pressure level (SPL) and sound exposure level (SEL)) frequently used in the discussions of acoustic effects in this document.

**SPL**

Sound pressure is the sound force per unit area, and is usually measured in micropascals ( $\mu Pa$ ), where 1 Pa is the pressure resulting from a force of one newton exerted over an area of one square meter. SPL is expressed as the ratio of a measured sound pressure and a reference level. The commonly used reference pressure level in underwater acoustics is 1  $\mu Pa$ , and the units for SPLs are dB re: 1  $\mu Pa$ .

$SPL \text{ (in dB)} = 20 \log (\text{pressure} / \text{reference pressure})$

SPL is an instantaneous measurement and can be expressed as the peak, the peak-peak, or the root mean square (rms). Root mean square, which is the square root of the arithmetic average of the squared instantaneous pressure values, is typically used in discussions of the effects of sounds on vertebrates and all references to SPL in this document refer to the root mean square. SPL does not take the duration of a sound into account. SPL is the applicable metric used in the risk continuum, which is used to estimate behavioral harassment takes (see Level B Harassment Risk Function (Behavioral Harassment) Section).

**SEL**

SEL is an energy metric that integrates the squared instantaneous sound pressure over a stated time interval. The units for SEL are dB re: 1  $\mu Pa^2 \cdot s$ .

$SEL = SPL + 10 \log (\text{duration in seconds})$

As applied to MFAS/HFAS, the SEL includes both the SPL of a sonar ping and the total duration. Longer duration pings and/or pings with higher SPLs will have a higher SEL. If an animal is exposed to multiple pings, the SEL in each individual ping is summed to calculate the total SEL. The total SEL depends on the SPL, duration, and number of pings received. The thresholds that NMFS uses to indicate at what received level the onset of temporary threshold shift (TTS) and permanent threshold shift (PTS) in hearing are likely to occur are expressed in SEL.

**Potential Effects of Specified Activities on Marine Mammals**

The Navy has requested authorization for the take of marine mammals that may occur incidental to training activities in the NWTRC utilizing MFAS/HFAS or underwater detonations. In addition to MFAS/HFAS and underwater detonations, the Navy has analyzed other potential impacts to marine mammals from training activities in the NWTRC DEIS, including ship strike, aerial overflights,

ship noise and movement, and others, and, in consultation with NMFS as a cooperating agency for the NWTRC DEIS, has determined that take of marine mammals incidental to these non-acoustic components of the NWTRC is unlikely and, therefore, has not requested authorization for take of marine mammals that might occur incidental to these non-acoustic components. In this document, NMFS analyzes the potential effects on marine mammals from exposure to MFAS/HFAS and underwater detonations, but also includes some additional analysis of the potential impacts from vessel operation in the NWTRC.

For the purpose of MMPA authorizations, NMFS' effects assessments serve four primary purposes: (1) To help identify the permissible methods of taking, meaning: the nature of the take (e.g., resulting from anthropogenic noise vs. from ship strike, etc.), the regulatory level of take (i.e., mortality vs. Level A or Level B harassment), and; the amount of take; (2) to inform the prescription of means of affecting the least practicable adverse impact on such species or stock and its habitat (i.e., mitigation); (3) to support the determination of whether the specified activity will have a negligible impact on the affected species or stocks of marine mammals (based on the likelihood that the activity will adversely affect the species or stock through effects on annual rates of recruitment or survival); and (4) to determine whether the specified activity will have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (however, there are no subsistence communities that would be affected in the NWTRC).

More specifically, for activities involving sonar or underwater detonations, NMFS' analysis will identify the probability of lethal responses, physical trauma, sensory impairment (permanent and temporary threshold shifts and acoustic masking), physiological responses (particular stress responses), behavioral disturbance (that rises to the level of harassment), and social responses that would be classified as behavioral harassment or injury and/or would be likely to adversely affect the species or stock through effects on annual rates of recruitment or survival. In this section, we will focus qualitatively on the different ways that MFAS/HFAS and underwater explosive detonations may affect marine mammals (some of which NMFS would not classify as harassment). Then, in the Estimated Take of Marine Mammals Section, NMFS will relate the potential effects to

marine mammals from MFAS/HFAS and underwater detonation of explosives to the MMPA regulatory definitions of Level A and Level B Harassment and attempt to quantify those effects.

**Exposure to MFAS/HFAS**

In the subsections below, the following types of impacts are discussed in more detail: Direct physiological impacts, stress responses, acoustic masking and impaired communication, behavioral disturbance, and strandings. An additional useful graphic tool for better understanding the layered nature of potential marine mammal responses to anthropogenic sound is presented in NMFS' January 14, 2009 Programmatic biological opinion on the U.S. Navy's proposal to conduct training exercises in the Southern California Range Complex from January 2009 to January 2014 (available at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications>). This document presents a conceptual model of the potential responses of endangered and threatened species upon being exposed to MFAS/HFAS and the pathways by which those responses might affect the fitness of individual animals that have been exposed, and the resulting impact on the individual animal's ability to reproduce or survive. Literature supporting the framework, with examples drawn from many taxa (both aquatic and terrestrial) was included in the "Application of this Approach" and "Response Analyses" sections of that document.

**Direct Physiological Effects**

Based on the literature, there are two basic ways that MFAS/HFAS might directly result in physical trauma or damage: Noise-induced loss of hearing sensitivity (more commonly-called "threshold shift") and acoustically mediated bubble growth. Separately, an animal's behavioral reaction to an acoustic exposure might lead to physiological effects that might ultimately lead to injury or death, which is discussed later in the Stranding section.

**Threshold Shift (Noise-Induced Loss of Hearing)**

When animals exhibit reduced hearing sensitivity (i.e., sounds must be louder for an animal to recognize them) following exposure to a sufficiently intense sound, it is referred to as a noise-induced threshold shift (TS). An animal can experience temporary threshold shift (TTS) or permanent threshold shift (PTS). TTS can last from minutes or hours to days (i.e., there is

recovery), occurs in specific frequency ranges (*i.e.*, an animal might only have a temporary loss of hearing sensitivity between the frequencies of 1 and 10 kHz), and can be of varying amounts (for example, an animal's hearing sensitivity might be reduced by only 6 dB or reduced by 30 dB). PTS is permanent (*i.e.*, there is no recovery), but also occurs in a specific frequency range and amount as mentioned above for TTS.

The following physiological mechanisms are thought to play a role in inducing auditory TSs: Effects to sensory hair cells in the inner ear that reduce their sensitivity, modification of the chemical environment within the sensory cells, residual muscular activity in the middle ear, displacement of certain inner ear membranes, increased blood flow, and post-stimulatory reduction in both efferent and sensory neural output (Southall *et al.*, 2007). The amplitude, duration, frequency, temporal pattern, and energy distribution of sound exposure all affect the amount of associated TS and the frequency range in which it occurs. As amplitude and duration of sound exposure increase, so, generally, does the amount of TS, along with the recovery time. Human non-impulsive noise exposure guidelines are based on exposures of equal energy (the same SEL) producing equal amounts of hearing impairment regardless of how the sound energy is distributed in time (NIOSH, 1998). Until recently, previous marine mammal TTS studies have also generally supported this equal energy relationship (Southall *et al.*, 2007). Three newer studies, two by Mooney *et al.* (2009a, 2009b) on a single bottlenose dolphin either exposed to playbacks of Navy MFAS or octave-band noise (4–8 kHz) and one by Kastak *et al.* (2007) on a single California sea lion exposed to airborne octave-band noise (centered at 2.5 kHz), concluded that for all noise exposure situations the equal energy relationship may not be the best indicator to predict TTS levels. All three of these studies highlight the inherent complexity of TTS in marine mammals, as well as the importance of considering exposure duration when assessing impacts. With exposures of equal energy, quieter, longer duration exposures were found to induce greater levels of TTS than those of exposures that were louder and of shorter duration (more similar to MFAS). For intermittent sounds, less TTS will occur than from a continuous exposure with the same energy (some recovery will occur between intermittent exposures) (Kryter *et al.*, 1966; Ward, 1997). For example, one short but loud (higher

SPL) sound exposure may induce the same impairment as one longer but softer sound, which in turn may cause more impairment than a series of several intermittent softer sounds with the same total energy (Ward, 1997). Additionally, though TTS is temporary, very prolonged exposure to sound strong enough to elicit TTS, or shorter-term exposure to sound levels well above the TTS threshold, can cause PTS, at least in terrestrial mammals (Kryter, 1985) (although in the case of MFAS/HFAS, animals are not expected to be exposed to levels high enough or durations long enough to result in PTS).

PTS is considered auditory injury (Southall *et al.*, 2007). Irreparable damage to the inner or outer cochlear hair cells may cause PTS, however, other mechanisms are also involved, such as exceeding the elastic limits of certain tissues and membranes in the middle and inner ears and resultant changes in the chemical composition of the inner ear fluids (Southall *et al.*, 2007).

Although the published body of scientific literature contains numerous theoretical studies and discussion papers on hearing impairments that can occur with exposure to a loud sound, only a few studies provide empirical information on the levels at which noise-induced loss in hearing sensitivity occurs in nonhuman animals. For cetaceans, published data on the onset of TTS are limited to the captive bottlenose dolphin and beluga (Finneran *et al.*, 2000, 2002b, 2005a; Schlundt *et al.*, 2000; Nachtigall *et al.*, 2003, 2004). For pinnipeds in water, data are limited to Kastak *et al.*'s measurement of TTS in one harbor seal, one elephant seal, and one California sea lion.

Marine mammal hearing plays a critical role in communication with conspecifics, and interpretation of environmental cues for purposes such as predator avoidance and prey capture. Depending on the degree (elevation of threshold in dB), duration (*i.e.*, recovery time), and frequency range of TTS, and the context in which it is experienced, TTS can have effects on marine mammals ranging from discountable to serious (similar to those discussed in auditory masking, below). For example, a marine mammal may be able to readily compensate for a brief, relatively small amount of TTS in a non-critical frequency range that takes place during a time when the animal is traveling through the open ocean, where ambient noise is lower and there are not as many competing sounds present. Alternatively, a larger amount and longer duration of TTS sustained during

time when communication is critical for successful mother/calf interactions could have more serious impacts if it were in the same frequency band as the necessary vocalizations and of a severity that it impeded communication. Also, depending on the degree and frequency range, the effects of PTS on an animal could range in severity, although it is considered generally more serious because it is a permanent condition. Of note, reduced hearing sensitivity as a simple function of development and aging has been observed in marine mammals, as well as humans and other taxa (Southall *et al.*, 2007), so we can infer that strategies exist for coping with this condition to some degree, though likely not without cost. There is no empirical evidence that exposure to MFAS/HFAS can cause PTS in any marine mammals; instead the probability of PTS has been inferred from studies of TTS (*see* Richardson *et al.*, 1995).

#### Acoustically Mediated Bubble Growth

One theoretical cause of injury to marine mammals is rectified diffusion (Crum and Mao, 1996), the process of increasing the size of a bubble by exposing it to a sound field. This process could be facilitated if the environment in which the ensonified bubbles exist is supersaturated with gas. Repetitive diving by marine mammals can cause the blood and some tissues to accumulate gas to a greater degree than is supported by the surrounding environmental pressure (Ridgway and Howard, 1979). The deeper and longer dives of some marine mammals (for example, beaked whales) are theoretically predicted to induce greater supersaturation (Houser *et al.*, 2001b). If rectified diffusion were possible in marine mammals exposed to high-level sound, conditions of tissue supersaturation could theoretically speed the rate and increase the size of bubble growth. Subsequent effects due to tissue trauma and emboli would presumably mirror those observed in humans suffering from decompression sickness.

It is unlikely that the short duration of MFAS pings would be long enough to drive bubble growth to any substantial size, if such a phenomenon occurs. However, an alternative but related hypothesis has also been suggested: Stable bubbles could be destabilized by high-level sound exposures such that bubble growth then occurs through static diffusion of gas out of the tissues. In such a scenario the marine mammal would need to be in a gas-supersaturated state for a long

enough period of time for bubbles to become of a problematic size.

Yet another hypothesis (decompression sickness) has speculated that rapid ascent to the surface following exposure to a startling sound might produce tissue gas saturation sufficient for the evolution of nitrogen bubbles (Jepson *et al.*, 2003; Fernandez *et al.*, 2005). In this scenario, the rate of ascent would need to be sufficiently rapid to compromise behavioral or physiological protections against nitrogen bubble formation. Collectively, these hypotheses can be referred to as "hypotheses of acoustically mediated bubble growth."

Although theoretical predictions suggest the possibility for acoustically mediated bubble growth, there is considerable disagreement among scientists as to its likelihood (Piantadosi and Thalmann, 2004; Evans and Miller, 2003; Crum and Mao (1996) hypothesized that received levels would have to exceed 190 dB in order for there to be the possibility of significant bubble growth due to supersaturation of gases in the blood (*i.e.*, rectified diffusion). More recent work conducted by Crum *et al.* (2005) demonstrated the possibility of rectified diffusion for short duration signals, but at SELs and tissue saturation levels that are highly improbable to occur in diving marine mammals. To date, Energy Levels (ELs) predicted to cause in vivo bubble formation within diving cetaceans have not been evaluated (NOAA, 2002b). Although it has been argued that traumas from some recent beaked whale strandings are consistent with gas emboli and bubble-induced tissue separations (Jepson *et al.*, 2003), there is no conclusive evidence of this. However, Jepson *et al.* (2003, 2005) and Fernandez *et al.* (2004, 2005) concluded that in vivo bubble formation, which may be exacerbated by deep, long-duration, repetitive dives may explain why beaked whales appear to be particularly vulnerable to MFAS/HFAS exposures. Further investigation is needed to further assess the potential validity of these hypotheses. More information regarding hypotheses that attempt to explain how behavioral responses to MFAS/HFAS can lead to strandings is included in the Behaviorally Mediated Bubble Growth Section, after the summary of strandings.

#### Acoustic Masking

Marine mammals use acoustic signals for a variety of purposes, which differ among species, but include communication between individuals, navigation, foraging, reproduction, and

learning about their environment (Erbe and Farmer, 2000; Tyack, 2000). Masking, or auditory interference, generally occurs when sounds in the environment are louder than and of a similar frequency to, auditory signals an animal is trying to receive. Masking is a phenomenon that affects animals that are trying to receive acoustic information about their environment, including sounds from other members of their species, predators, prey, and sounds that allow them to orient in their environment. Masking these acoustic signals can disturb the behavior of individual animals, groups of animals, or entire populations.

The extent of the masking interference depends on the spectral, temporal, and spatial relationships between the signals an animal is trying to receive and the masking noise, in addition to other factors. In humans, significant masking of tonal signals occurs as a result of exposure to noise in a narrow band of similar frequencies. As the sound level increases, though, the detection of frequencies above those of the masking stimulus decreases also. This principle is expected to apply to marine mammals as well because of common biomechanical cochlear properties across taxa.

Richardson *et al.* (1995b) argued that the maximum radius of influence of an industrial noise (including broadband low frequency sound transmission) on a marine mammal is the distance from the source to the point at which the noise can barely be heard. This range is determined by either the hearing sensitivity of the animal or the background noise level present. Industrial masking is most likely to affect some species' ability to detect communication calls and natural sounds (*i.e.*, surf noise, prey noise, *etc.*; Richardson *et al.*, 1995).

The echolocation calls of toothed whales are subject to masking by high frequency sound. Human data indicate low-frequency sound can mask high-frequency sounds (*i.e.*, upward masking). Studies on captive odontocetes by Au *et al.* (1974, 1985, 1993) indicate that some species may use various processes to reduce masking effects (*e.g.*, adjustments in echolocation call intensity or frequency as a function of background noise conditions). There is also evidence that the directional hearing abilities of odontocetes are useful in reducing masking at the high frequencies these cetaceans use to echolocate, but not at the low-to-moderate frequencies they use to communicate (Zaitseva *et al.*, 1980). A recent study by Nachtigall and Supin (2008) showed that false killer whales

adjust their hearing to compensate for ambient sounds and the intensity of returning echolocation signals.

As mentioned previously, the functional hearing ranges of odontocetes, pinnipeds underwater, and mysticetes all encompass the frequencies of the MFAS/HFAS sources used in the Navy's MFAS/HFAS training exercises (although some mysticete's best hearing capacities are likely at frequencies somewhat lower than MFAS). Additionally, in almost all species, vocal repertoires span across the frequencies of these MFAS/HFAS sources used by the Navy. The closer the characteristics of the masking signal to the signal of interest, the more likely masking is to occur. For hull-mounted MFAS/HFAS—which accounts for the largest part of the takes of marine mammals (because of the source strength and number of hours it's conducted), the pulse length and duty cycle of the MFAS/HFAS signal (~1 second pulse twice a minute) makes it less likely that masking will occur as a result.

#### Impaired Communication

In addition to making it more difficult for animals to perceive acoustic cues in their environment, anthropogenic sound presents separate challenges for animals that are vocalizing. When they vocalize, animals are aware of environmental conditions that affect the "active space" of their vocalizations, which is the maximum area within which their vocalizations can be detected before it drops to the level of ambient noise (Brenowitz, 2004; Brumm *et al.*, 2004; Lohr *et al.*, 2003). Animals are also aware of environmental conditions that affect whether listeners can discriminate and recognize their vocalizations from other sounds, which is more important than simply detecting that a vocalization is occurring (Brenowitz, 1982; Brumm *et al.*, 2004; Dooling, 2004; Marten and Marler, 1977; Patricelli *et al.*, 2006). Most animals that vocalize have evolved with an ability to make adjustments to their vocalizations to increase the signal-to-noise ratio, active space, and recognizability/distinguishability of their vocalizations in the face of temporary changes in background noise (Brumm *et al.*, 2004; Patricelli *et al.*, 2006). Vocalizing animals can make one or more of the following adjustments to their vocalizations: Adjust the frequency structure; adjust the amplitude; adjust temporal structure; or adjust temporal delivery (*see* Biological Opinion).

Many animals will combine several of these strategies to compensate for high levels of background noise.

Anthropogenic sounds that reduce the signal-to-noise ratio of animal vocalizations, increase the masked auditory thresholds of animals listening for such vocalizations, or reduce the active space of an animal's vocalizations, impair communication between animals. Most animals that vocalize have evolved strategies to compensate for the effects of short-term or temporary increases in background or ambient noise on their songs or calls. Although the fitness consequences of these vocal adjustments remain unknown, like most other trade-offs animals must make, some of these strategies probably come at a cost (Patricelli *et al.*, 2006). For example, vocalizing more loudly in noisy environments may have energetic costs that decrease the net benefits of vocal adjustment and alter a bird's energy budget (Brumm, 2004; Wood and Yezerinac, 2006). Shifting songs and calls to higher frequencies may also impose energetic costs (Lambrechts, 1996).

#### Stress Responses

Classic stress responses begin when an animal's central nervous system perceives a potential threat to its homeostasis. That perception triggers stress responses regardless of whether a stimulus actually threatens the animal; the mere perception of a threat is sufficient to trigger a stress response (Moberg, 2000; Sapolsky *et al.*, 2005; Seyle, 1950). Once an animal's central nervous system perceives a threat, it mounts a biological response or defense that consists of a combination of the four general biological defense responses: Behavioral responses, autonomic nervous system responses, neuroendocrine responses, or immune response.

In the case of many stressors, an animal's first and most economical (in terms of biotic costs) response is behavioral avoidance of the potential stressor or avoidance of continued exposure to a stressor. An animal's second line of defense to stressors involves the sympathetic part of the autonomic nervous system and the classical "fight or flight" response which includes the cardiovascular system, the gastrointestinal system, the exocrine glands, and the adrenal medulla to produce changes in heart rate, blood pressure, and gastrointestinal activity that humans commonly associate with "stress." These responses have a relatively short duration and may or may not have significant long-term effects on an animal's welfare.

An animal's third line of defense to stressors involves its neuroendocrine or

sympathetic nervous systems; the system that has received the most study has been the hypothalamus-pituitary-adrenal system (also known as the HPA axis in mammals or the hypothalamus-pituitary-interrenal axis in fish and some reptiles). Unlike stress responses associated with the autonomic nervous system, virtually all neuro-endocrine functions that are affected by stress—including immune competence, reproduction, metabolism, and behavior—are regulated by pituitary hormones. Stress-induced changes in the secretion of pituitary hormones have been implicated in failed reproduction (Moberg, 1987; Rivier, 1995) and altered metabolism (Elasser *et al.*, 2000), reduced immune competence (Blecha, 2000) and behavioral disturbance. Increases in the circulation of glucocorticosteroids (cortisol, corticosterone, and aldosterone in marine mammals; see Romano *et al.*, 2004) have been equated with stress for many years.

The primary distinction between stress (which is adaptive and does not normally place an animal at risk) and distress is the biotic cost of the response. During a stress response, an animal uses glycogen stores that can be quickly replenished once the stress is alleviated. In such circumstances, the cost of the stress response would not pose a risk to the animal's welfare. However, when an animal does not have sufficient energy reserves to satisfy the energetic costs of a stress response, energy resources must be diverted from other biotic functions, which impairs those functions that experience the diversion. For example, when mounting a stress response diverts energy away from growth in young animals, those animals may experience stunted growth. When mounting a stress response diverts energy from a fetus, an animal's reproductive success and its fitness will suffer. In these cases, the animals will have entered a pre-pathological or pathological state which is called "distress" (sensu Seyle, 1950) or "allostatic loading" (sensu McEwen and Wingfield, 2003). This pathological state will last until the animal replenishes its biotic reserves sufficient to restore normal function.

Relationships between these physiological mechanisms, animal behavior, and the costs of stress responses have also been documented fairly well through controlled experiment; because this physiology exists in every vertebrate that has been studied, it is not surprising that stress responses and their costs have been documented in both laboratory and free-living animals (for examples see,

Holberton *et al.*, 1996; Hood *et al.*, 1998; Jessop *et al.*, 2003; Krausman *et al.*, 2004; Lankford *et al.*, 2005; Reneerkens *et al.*, 2002; Thompson and Hamer, 2000). Although no information has been collected on the physiological responses of marine mammals to exposure to anthropogenic sounds, studies of other marine animals and terrestrial animals would lead us to expect some marine mammals to experience physiological stress responses and, perhaps, physiological responses that would be classified as "distress" upon exposure to high frequency, mid-frequency and low-frequency sounds.

For example, Jansen (1998) reported on the relationship between acoustic exposures and physiological responses that are indicative of stress responses in humans (for example, elevated respiration and increased heart rates). Jones (1998) reported on reductions in human performance when faced with acute, repetitive exposures to acoustic disturbance. Trimper *et al.*, (1998) reported on the physiological stress responses of osprey to low-level aircraft noise while Krausman *et al.*, (2004) reported on the auditory and physiology stress responses of endangered Sonoran pronghorn to military overflights. Smith *et al.*, (2004a, 2004b) identified noise-induced physiological transient stress responses in hearing-specialist fish (*i.e.*, goldfish) that accompanied short- and long-term hearing losses. Welch and Welch (1970) reported physiological and behavioral stress responses that accompanied damage to the inner ears of fish and several mammals.

Hearing is one of the primary senses marine mammals use to gather information about their environment and to communicate with conspecifics. Although empirical information on the relationship between sensory impairment (TTS, PTS, and acoustic masking) on marine mammals remains limited, it seems reasonable to assume that reducing an animal's ability to gather information about its environment and to communicate with other members of its species would be stressful for animals that use hearing as their primary sensory mechanism. Therefore, we assume that acoustic exposures sufficient to trigger onset PTS or TTS would be accompanied by physiological stress responses because terrestrial animals exhibit those responses under similar conditions (NRC, 2003). More importantly, marine mammals might experience stress responses at received levels lower than those necessary to trigger onset TTS. Based on empirical studies of the time required to recover from stress

responses (Moberg, 2000), NMFS also assumes that stress responses could persist beyond the time interval required for animals to recover from TTS and might result in pathological and pre-pathological states that would be as significant as behavioral responses to TTS.

#### Behavioral Disturbance

Behavioral responses to sound are highly variable and context-specific. Many different variables can influence an animal's perception of and response to (nature and magnitude) an acoustic event. An animal's prior experience with a sound or sound source affects whether it is less likely (habituation) or more likely (sensitization) to respond to certain sounds in the future (animals can also be innately pre-disposed to respond to certain sounds in certain ways) (Southall *et al.*, 2007). Related to the sound itself, the perceived nearness of the sound, bearing of the sound (approaching vs. retreating), similarity of a sound to biologically relevant sounds in the animal's environment (*i.e.*, calls of predators, prey, or conspecifics), and familiarity of the sound may affect the way an animal responds to the sound (Southall *et al.*, 2007). Individuals (of different age, gender, reproductive status, *etc.*) among most populations will have variable hearing capabilities, and differing behavioral sensitivities to sounds that will be affected by prior conditioning, experience, and current activities of those individuals. Often, specific acoustic features of the sound and contextual variables (*i.e.*, proximity, duration, or recurrence of the sound or the current behavior that the marine mammal is engaged in or its prior experience), as well as entirely separate factors such as the physical presence of a nearby vessel, may be more relevant to the animal's response than the received level alone.

Exposure of marine mammals to sound sources can result in (but is not limited to) no response or any of the following observable responses: Increased alertness; orientation or attraction to a sound source; vocal modifications; cessation of feeding; cessation of social interaction; alteration of movement or diving behavior; avoidance; habitat abandonment (temporary or permanent); and, in severe cases, panic, flight, stampede, or stranding, potentially resulting in death (Southall *et al.*, 2007). A review of marine mammal responses to anthropogenic sound was first conducted by Richardson (1995). A more recent review (Nowacek *et al.*, 2007) addresses studies conducted since

1995 and focuses on observations where the received sound level of the exposed marine mammal(s) was known or could be estimated. The following subsections provide examples of behavioral responses that provide an idea of the variability in behavioral responses that would be expected given the differential sensitivities of marine mammal species to sound and the wide range of potential acoustic sources to which a marine mammal may be exposed. Estimates of the types of behavioral responses that could occur for a given sound exposure should be determined from the literature that is available for each species, or extrapolated from closely related species when no information exists.

*Alteration of Diving or Movement*—Changes in dive behavior can vary widely. They may consist of increased or decreased dive times and surface intervals as well as changes in the rates of ascent and descent during a dive. Variations in dive behavior may reflect interruptions in biologically significant activities (*e.g.*, foraging) or they may be of little biological significance. Variations in dive behavior may also expose an animal to potentially harmful conditions (*e.g.*, increasing the chance of ship-strike) or may serve as an avoidance response that enhances survivorship. The impact of a variation in diving resulting from an acoustic exposure depends on what the animal is doing at the time of the exposure and the type and magnitude of the response.

Nowacek *et al.*, (2004) reported disruptions of dive behaviors in foraging North Atlantic right whales when exposed to an alerting stimulus, an action, they noted, that could lead to an increased likelihood of ship-strike. However, the whales did not respond to playbacks of either right whale social sounds or vessel noise, highlighting the importance of the sound characteristics in producing a behavioral reaction. Conversely, Indo-Pacific humpback dolphins have been observed to dive for longer periods of time in areas where vessels were present and/or approaching (Ng and Leung, 2003). In both of these studies, the influence of the sound exposure cannot be decoupled from the physical presence of a surface vessel, thus complicating interpretations of the relative contribution of each stimulus to the response. Indeed, the presence of surface vessels, their approach and speed of approach, seemed to be significant factors in the response of the Indo-Pacific humpback dolphins (Ng and Leung, 2003). Low frequency signals of the Acoustic Thermometry of Ocean Climate (ATOC) sound source

were not found to affect dive times of humpback whales in Hawaiian waters (Frankel and Clark, 2000) or to overtly affect elephant seal dives (Costa *et al.*, 2003). They did, however, produce subtle effects that varied in direction and degree among the individual seals, illustrating the equivocal nature of behavioral effects and consequent difficulty in defining and predicting them.

*Foraging*—Disruption of feeding behavior can be difficult to correlate with anthropogenic sound exposure, so it is usually inferred by observed displacement from known foraging areas, the appearance of secondary indicators (*e.g.*, bubble nets or sediment plumes), or changes in dive behavior. Noise from seismic surveys was not found to impact the feeding behavior in western grey whales off the coast of Russia (Yazvenko *et al.*, 2007) and sperm whales engaged in foraging dives did not abandon dives when exposed to distant signatures of seismic airguns (Madsen *et al.*, 2006). Balaenopterid whales exposed to moderate low-frequency signals similar to the ATOC sound source demonstrated no variation in foraging activity (Croll *et al.*, 2001), whereas five out of six North Atlantic right whales exposed to an acoustic alarm interrupted their foraging dives (Nowacek *et al.*, 2004). Although the received sound pressure level at the animals was similar in the latter two studies, the frequency, duration, and temporal pattern of signal presentation were different. These factors, as well as differences in species sensitivity, are likely contributing factors to the differential response. A determination of whether foraging disruptions incur fitness consequences will require information on or estimates of the energetic requirements of the individuals and the relationship between prey availability, foraging effort and success, and the life history stage of the animal.

Brownell (2004) reported the behavioral responses of western gray whales off the northeast coast of Sakhalin Island to sounds produced by seismic activities in that region. In 1997, the gray whales responded to seismic activities by changing their swimming speed and orientation, respiration rates, and distribution in waters around the seismic surveys. In 2001, seismic activities were conducted in a known feeding area of these whales and the whales left the feeding area and moved to areas farther south in the Sea of Okhotsk. They only returned to the feeding area several days after the seismic activities stopped. The potential fitness consequences of displacing these

whales, especially mother-calf pairs and "skinny whales," outside of their normal feeding area is not known; however, because gray whales, like other large whales, must gain enough energy during the summer foraging season to last them the entire year, sounds or other stimuli that cause them to abandon a foraging area for several days could disrupt their energetics and force them to make trade-offs like delaying their migration south, delaying reproduction, reducing growth, or migrating with reduced energy reserves.

**Social relationships**—Social interactions between mammals can be affected by noise via the disruption of communication signals or by the displacement of individuals. Disruption of social relationships therefore depends on the disruption of other behaviors (e.g., avoidance, masking, etc.). Sperm whales responded to military sonar, apparently from a submarine, by dispersing from social aggregations, moving away from the sound source, remaining relatively silent and becoming difficult to approach (Watkins *et al.*, 1985). Social disruptions must be considered, however, in context of the relationships that are affected. While some disruptions may not have deleterious effects, long-term disruptions of mother/calf pairs or interruption of mating behaviors have the potential to affect the growth and survival or reproductive effort/success of individuals, respectively.

**Vocalizations** (also see Masking section)—Vocal changes in response to anthropogenic noise can occur across the repertoire of sound production modes used by marine mammals, such as whistling, echolocation click production, calling, and singing. Changes may result in response to a need to compete with an increase in background noise or may reflect an increased vigilance or startle response. For example, in the presence of low-frequency active sonar, humpback whales have been observed to increase the length of their "songs" (Miller *et al.*, 2000; Fristrup *et al.*, 2003), possibly due to the overlap in frequencies between the whale song and the low-frequency active sonar. A similar compensatory effect for the presence of low-frequency vessel noise has been suggested for right whales; right whales have been observed to shift the frequency content of their calls upward while reducing the rate of calling in areas of increased anthropogenic noise (Parks *et al.*, 2007). Killer whales off the northwestern coast of the United States have been observed to increase the duration of primary calls once a threshold in observing vessel density (e.g., whale watching) was

reached, which has been suggested as a response to increased masking noise produced by the vessels (Foote *et al.*, 2004). In contrast, both sperm and pilot whales potentially ceased sound production during the Heard Island feasibility test (Bowles *et al.*, 1994), although it cannot be absolutely determined whether the inability to acoustically detect the animals was due to the cessation of sound production or the displacement of animals from the area.

**Avoidance**—Avoidance is the displacement of an individual from an area as a result of the presence of a sound. Richardson *et al.* (1995) noted that avoidance reactions are the most obvious manifestations of disturbance in marine mammals. It is qualitatively different from the flight response, but also differs in the magnitude of the response (*i.e.*, directed movement, rate of travel, etc.). Oftentimes avoidance is temporary, and animals return to the area once the noise has ceased. Longer term displacement is possible, however, which can lead to changes in abundance or distribution patterns of the species in the affected region if they do not become acclimated to the presence of the sound (Blackwell *et al.*, 2004; Bejder *et al.*, 2006; Teilmann *et al.*, 2006). Acute avoidance responses have been observed in captive porpoises and pinnipeds exposed to a number of different sound sources (Kastelein *et al.*, 2001; Finneran *et al.*, 2003; Kastelein *et al.*, 2006a; Kastelein *et al.*, 2006b). Short term avoidance of seismic surveys, low-frequency emissions, and acoustic deterrents has also been noted in wild populations of odontocetes (Bowles *et al.*, 1994; Goold, 1996; 1998; Stone *et al.*, 2000; Morton and Symonds, 2002) and to some extent in mysticetes (Gailey *et al.*, 2007), while longer term or repetitive/chronic displacement for some dolphin groups and for manatees has been suggested to be due to the presence of chronic vessel noise (Haviland-Howell *et al.*, 2007; Miksis-Olds *et al.*, 2007).

Maybaum (1993) conducted sound playback experiments to assess the effects of mid-frequency active sonar on humpback whales in Hawaiian waters. Specifically, he exposed focal pods to sounds of a 3.3-kHz sonar pulse, a sonar frequency sweep from 3.1 to 3.6 kHz, and a control (blank) tape while monitoring the behavior, movement, and underwater vocalizations. The two types of sonar signals differed in their effects on the humpback whales, but both resulted in avoidance behavior. The whales responded to the pulse by increasing their distance from the sound source and responded to the frequency

sweep by increasing their swimming speeds and track linearity. In the Caribbean, sperm whales avoided exposure to mid-frequency submarine sonar pulses, in the range of 1,000 Hz to 10,000 Hz (IWC 2005).

Kvadsheim *et al.* (2007) conducted a controlled exposure experiment in which killer whales (*Orcinus orca*) that had been fitted with D-tags were exposed to mid-frequency active sonar (Source A: a 1.0 s upswEEP 209 dB @ 1–2 kHz every 10 seconds for 10 minutes; Source B: with a 1.0 s upswEEP 197 dB @ 6–7 kHz every 10 s for 10 min). When exposed to Source A, a tagged whale and the group it was traveling with did not appear to avoid the source. When exposed to Source B, the tagged whales along with other whales that had been carousel feeding, ceased feeding during the approach of the sonar and moved rapidly away from the source. When exposed to Source B, Kvadsheim and his co-workers reported that a tagged killer whale seemed to try to avoid further exposure to the sound field by immediately swimming away (horizontally) from the source of the sound; by engaging in a series of erratic and frequently deep dives that seem to take it below the sound field; or by swimming away while engaged in a series of erratic and frequently deep dives. Although the sample sizes in this study are too small to support statistical analysis, the behavioral responses of the orcas were consistent with the results of other studies.

In 2007, the first in the series of behavioral response studies conducted by NMFS and other scientists showed one beaked whale (*Mesoplodon densirostris*) responding to an MFAS playback. The BRS-07 Cruise report indicates that the playback began when the tagged beaked whale was vocalizing at depth (at the deepest part of a typical feeding dive), following a previous control with no sound exposure. The whale appeared to stop clicking significantly earlier than usual, when exposed to mid-frequency signals in the 130–140 dB (rms) range. After a few more minutes of the playback, when the received level reached a maximum of 140–150 dB, the whale ascended on the slow side of normal ascent rates with a longer than normal ascent, at which point the exposure was terminated. The BRS-07 Cruise report notes that the results are from a single experiment and that a greater sample size is needed before robust and definitive conclusions can be drawn (NMFS, 2008).

**Flight Response**—A flight response is a dramatic change in normal movement to a directed and rapid movement away from the perceived location of a sound

source. Flight responses have been speculated as being a component of marine mammal strandings associated with MFAS activities (Evans and England, 2001). If marine mammals respond to Navy vessels that are transmitting active sonar in the same way that they might respond to a predator, their probability of flight responses should increase when they perceive that Navy vessels are approaching them directly, because a direct approach may convey detection and intent to capture (Burger and Gochfeld, 1981, 1990, Cooper, 1997, 1998). The probability of avoidance responses should also increase as received levels of active sonar increase (and the ship is, therefore, closer) and as ship speeds increase (that is, as approach speeds increase). For example, the probability of flight responses in Dall's sheep *Ovis dalli dalli* (Frid 2001a, 2001b), ringed seals *Phoca hispida* (Born *et al.*, 1999), Pacific brant (*Branta bernicli nigricans*) and Canada geese (*B. canadensis*) increased as a helicopter or fixed-wing aircraft approached groups of these animals more directly (Ward *et al.*, 1999). Bald eagles (*Haliaeetus leucocephalus*) perched on trees alongside a river were also more likely to flee from a paddle raft when their perches were closer to the river or were closer to the ground (Steidl and Anthony, 1996).

**Breathing**—Variations in respiration naturally vary with different behaviors and variations in respiration rate as a function of acoustic exposure can be expected to co-occur with other behavioral reactions, such as a flight response or an alteration in diving. However, respiration rates in and of themselves may be representative of annoyance or an acute stress response. Mean exhalation rates of gray whales at rest and while diving were found to be unaffected by seismic surveys conducted adjacent to the whale feeding grounds (Gailey *et al.*, 2007). Studies with captive harbor porpoises showed increased respiration rates upon introduction of acoustic alarms (Kastelein *et al.*, 2001; Kastelein *et al.*, 2006a) and emissions for underwater data transmission (Kastelein *et al.*, 2005). However, exposure of the same acoustic alarm to a striped dolphin under the same conditions did not elicit a response (Kastelein *et al.*, 2006a), again highlighting the importance in understanding species differences in the tolerance of underwater noise when determining the potential for impacts resulting from anthropogenic sound exposure.

#### Continued Pre-Disturbance Behavior, Habituation, or No Response

Under some circumstances, some of the individual marine mammals that are exposed to active sonar transmissions will continue their normal behavioral activities; in other circumstances, individual animals will become aware of the sonar transmissions at lower received levels and move to avoid additional exposure or exposures at higher received levels (Richardson *et al.*, 1995).

It is difficult to distinguish between animals that continue their pre-disturbance behavior without stress responses, animals that continue their behavior but experience stress responses (that is, animals that cope with disturbance), animals that habituate to disturbance (that is, they may have experienced low-level stress responses initially, but those responses abated over time), and animals that do not respond to the potential disturbance. Watkins (1986) reviewed data on the behavioral reactions of fin, humpback, right and minke whales that were exposed to continuous, broadband low-frequency shipping and industrial noise in Cape Cod Bay. He concluded that underwater sound was the primary cause of behavioral reactions in these species of whales and that the whales responded behaviorally to acoustic stimuli within their respective hearing ranges. Watkins also noted that whales showed the strongest behavioral reactions to sounds in the 15 Hz to 28 kHz range, although negative reactions (avoidance, interruptions in vocalizations, etc.) were generally associated with sounds that were either unexpected, too loud, suddenly louder or different, or perceived as being associated with a potential threat (such as an approaching ship on a collision course). In particular, whales seemed to react negatively when they were within 100 m of the source or when received levels increased suddenly in excess of 12 dB relative to ambient sounds. At other times, the whales ignored the source of the signal and all four species habituated to these sounds.

Nevertheless, Watkins concluded that whales ignored most sounds in the background of ambient noise, including the sounds from distant human activities even though these sounds may have had considerable energies at frequencies well within the whales' range of hearing. Further, he noted that of the whales observed, fin whales were the most sensitive of the four species, followed by humpback whales; right whales were the least likely to be disturbed and generally did not react to

low-amplitude engine noise. By the end of his period of study, Watkins (1986) concluded that fin and humpback whales have generally habituated to the continuous and broad-band noise of Cape Cod Bay while right whales did not appear to change their response. As mentioned above, animals that habituate to a particular disturbance may have experienced low-level stress responses initially, but those responses abated over time. In most cases, this likely means a lessened immediate potential effect from a disturbance; however, concern exists where the habituation occurs in a potentially more harmful situation, for example: animals may become more vulnerable to vessel strikes once they habituate to vessel traffic (Swingle *et al.*, 1993; Wiley *et al.*, 1995).

Aicken *et al.* (2005) monitored the behavioral responses of marine mammals to a new low-frequency active sonar system that was being developed for use by the British Navy. During those trials, fin whales, sperm whales, Sowerby's beaked whales, long-finned pilot whales (*Globicephala melas*), Atlantic white-sided dolphins, and common bottlenose dolphins were observed and their vocalizations were recorded. These monitoring studies detected no evidence of behavioral responses that the investigators could attribute to exposure to the low-frequency active sonar during these trials.

#### Behavioral Responses (Southall *et al.* (2007))

Southall *et al.* (2007) reports the results of the efforts of a panel of experts in acoustic research from behavioral, physiological, and physical disciplines that convened and reviewed the available literature on marine mammal hearing and physiological and behavioral responses to human-made sound with the goal of proposing exposure criteria for certain effects. This peer-reviewed compilation of literature is very valuable, though Southall *et al.* (2007) note that not all data are equal, some have poor statistical power, insufficient controls, and/or limited information on received levels, background noise, and other potentially important contextual variables—such data were reviewed and sometimes used for qualitative illustration but were not included in the quantitative analysis for the criteria recommendations. All of the studies considered, however, contain an estimate of the received sound level when the animal exhibited the indicated response.

In the Southall *et al.* (2007) publication, for the purposes of

analyzing responses of marine mammals to anthropogenic sound and developing criteria, the authors differentiate between single pulse sounds, multiple pulse sounds, and non-pulse sounds. MFAS/HFAS is considered a non-pulse sound. Southall *et al.*, (2007) summarize the studies associated with low-frequency, mid-frequency, and high-frequency cetacean and pinniped responses to non-pulse sounds, based strictly on received level, in Appendix C of their article (incorporated by reference and summarized in the three paragraphs below).

The studies that address responses of low frequency cetaceans to non-pulse sounds include data gathered in the field and related to several types of sound sources (of varying similarity to MFAS/HFAS) including: vessel noise, drilling and machinery playback, low-frequency M-sequences (sine wave with multiple phase reversals) playback, tactical low-frequency active sonar playback, drill ships, Acoustic Thermometry of Ocean Climate (ATOC) source, and non-pulse playbacks. These studies generally indicate no (or very limited) responses to received levels in the 90 to 120 dB re: 1  $\mu$ Pa range and an increasing likelihood of avoidance and other behavioral effects in the 120 to 160 dB range. As mentioned earlier, though, contextual variables play a very important role in the reported responses and the severity of effects are not linear when compared to received level. Also, few of the laboratory or field datasets had common conditions, behavioral contexts or sound sources, so it is not surprising that responses differ.

The studies that address responses of mid-frequency cetaceans to non-pulse sounds include data gathered both in the field and the laboratory and related to several different sound sources (of varying similarity to MFAS/HFAS) including: Pingers, drilling playbacks, ship and ice-breaking noise, vessel noise, Acoustic Harassment Devices (AHDs), Acoustic Deterrent Devices (ADDs), MFAS, and non-pulse bands and tones. Southall *et al.*, (2007) were unable to come to a clear conclusion

regarding the results of these studies. In some cases, animals in the field showed significant responses to received levels between 90 and 120 dB, while in other cases these responses were not seen in the 120 to 150 dB range. The disparity in results was likely due to contextual variation and the differences between the results in the field and laboratory data (animals typically responded at lower levels in the field).

The studies that address responses of high frequency cetaceans to non-pulse sounds include data gathered both in the field and the laboratory and related to several different sound sources (of varying similarity to MFAS/HFAS) including: Pingers, AHDs, and various laboratory non-pulse sounds. All of these data were collected from harbor porpoises. Southall *et al.*, (2007) concluded that the existing data indicate that harbor porpoises are likely sensitive to a wide range of anthropogenic sounds at low received levels (~90–120 dB), at least for initial exposures. All recorded exposures above 140 dB induced profound and sustained avoidance behavior in wild harbor porpoises (Southall *et al.*, 2007). Rapid habituation was noted in some but not all studies. There is no data to indicate whether other high frequency cetaceans are as sensitive to anthropogenic sound as harbor porpoises are.

The studies that address the responses of pinnipeds in water to non-pulse sounds include data gathered both in the field and the laboratory and related to several different sound sources (of varying similarity to MFAS/HFAS) including: AHDs, ATOC, various non-pulse sounds used in underwater data communication; underwater drilling, and construction noise. Few studies exist with enough information to include them in the analysis. The limited data suggested that exposures to non-pulse sounds between 90 and 140 dB generally do not result in strong behavioral responses in pinnipeds in water, but no data exist at higher received levels.

In addition to summarizing the available data, the authors of Southall *et al.*, (2007) developed a severity scaling system with the intent of ultimately being able to assign some level of biological significance to a response. Following is a summary of their scoring system, a comprehensive list of the behaviors associated with each score may be found in the report:

- 0–3 (Minor and/or brief behaviors) includes, but is not limited to: No response; minor changes in speed or locomotion (but with no avoidance); individual alert behavior; minor cessation in vocal behavior; minor changes in response to trained behaviors (in laboratory);
  - 4–6 (Behaviors with higher potential to affect foraging, reproduction, or survival) includes, but is not limited to: Moderate changes in speed, direction, or dive profile; brief shift in group distribution; prolonged cessation or modification of vocal behavior (duration > duration of sound), minor or moderate individual and/or group avoidance of sound; brief cessation of reproductive behavior; or refusal to initiate trained tasks (in laboratory);
  - 7–9 (Behaviors considered likely to affect the aforementioned vital rates) includes, but is not limited to: Extensive or prolonged aggressive behavior; moderate, prolonged or significant separation of females and dependent offspring with disruption of acoustic reunion mechanisms; long-term avoidance of an area; outright panic, stampede, stranding; threatening or attacking sound source (in laboratory).
- In Table 6 we have summarized the scores that Southall *et al.*, (2007) assigned to the papers that reported behavioral responses of low-frequency cetaceans, mid-frequency cetaceans, and pinnipeds in water to non-pulse sounds. This table is included simply to summarize the findings of the studies and opportunistic observations (all of which were capable of estimating received level) that Southall *et al.*, (2007) compiled in the effort to develop acoustic criteria.

Response Score	Received RMS Sound Pressure Level (dB re: 1 $\mu$ Pa)											
	80 to < 90	90 to < 100	100 to < 110	110 to < 120	120 to < 130	130 to < 140	140 to < 150	150 to < 160	160 to < 170	170 to < 180	180 to < 190	190 to < 200
9												
8			M	M		M		M				M
7							L	L				M
6	H	L/H	L/PH	L/M/H	L/M/H	L	L/H	H	M/H	M		
5			H	H	M							
4				L/M	L/M/P	P	L					
3		M	L/M	L/M	M/P	P						
2			L	L/M	L	L	L					
1			M	M	M	M						
0	L/H/P	L/H/P	L/M/H	L/M/H/P	L/M/H/P	L	M				M	M

Table 6. Data compiled from three tables from Southall *et al.*, (2007) indicating when marine mammals (low-frequency cetaceans = L, mid-frequency cetaceans = M, high frequency cetaceans = H, and pinnipeds = P) were reported as having a behavioral response of the indicated severity to a non-pulse sound of the indicated received level. As discussed in the text, responses are highly variable and context specific.

#### Potential Effects of Behavioral Disturbance

The different ways that marine mammals respond to sound are sometimes indicators of the ultimate effect that exposure to a given stimulus will have on the well-being (survival, reproduction, *etc.*) of an animal. There is little quantitative marine mammal data relating the exposure of marine mammals to sound to effects on reproduction or survival, though data exists for terrestrial species to which we can draw comparisons for marine mammals. Several authors have reported that disturbance stimuli cause animals to abandon nesting and foraging sites, Sutherland and Crockford, 1993), cause animals to increase their activity levels and suffer premature deaths or reduced reproductive success when their energy expenditures exceed their energy budgets (Daan *et al.*, 1996, Feare 1976, Giese 1996, Mullner *et al.*, 2004, Waunters *et al.*, 1997), or cause animals to experience higher predation rates when they adopt risk-prone foraging or migratory strategies (Frid and Dill, 2002). Each of these studies addressed the consequences that result when animals shift from one behavioral state (for example, resting or foraging) to another behavioral state (avoidance or escape behavior) because of human disturbance or disturbance stimuli.

One consequence of behavioral avoidance results from changing the energetics of marine mammals because of the energy required to avoid surface vessels or the sound field associated with active sonar (Frid and Dill, 2002). Most animals can avoid that energetic cost by swimming away at slow speeds or those speeds that are at or near the minimum cost of transport (Miksis-Olds, 2006), as has been demonstrated in Florida manatees (Hartman, 1979, Miksis-Olds, 2006).

Those costs increase, however, when animals shift from a resting state, which is designed to conserve an animal's

energy, to an active state that consumes energy the animal would have conserved had it not been disturbed. Marine mammals that have been disturbed by anthropogenic noise and vessel approaches are commonly reported to shift from resting behavioral states to active behavioral states, which would imply that they incur an energy cost. Morete *et al.*, (2007) reported that undisturbed humpback whale cows that were accompanied by their calves were frequently observed resting while their calves circled them (milling) and rolling interspersed with dives. When vessels approached, the amount of time cows and calves spent resting and milling, respectively declined significantly. These results are similar to those reported by Scheidat *et al.* (2004) for the humpback whales they observed off the coast of Ecuador.

Constantine and Brunton (2001) reported that bottlenose dolphins in the Bay of Islands, New Zealand only engaged in resting behavior 5% of the time when vessels were within 300 meters compared with 83% of the time when vessels were not present. Miksis-Olds (2006) and Miksis-Olds *et al.* (2005) reported that Florida manatees in Sarasota Bay, Florida, reduced the amount of time they spent milling and increased the amount of time they spent feeding when background noise levels increased. Although the acute costs of these changes in behavior are not likely to exceed an animal's ability to compensate, the chronic costs of these behavioral shifts are uncertain.

Attention is the cognitive process of selectively concentrating on one aspect of an animal's environment while ignoring other things (Posner, 1994). Because animals (including humans) have limited cognitive resources, there is a limit to how much sensory information they can process at any time. The phenomenon called "attentional capture" occurs when a stimulus (usually a stimulus that an animal is not concentrating on or attending to) "captures" an animal's attention. This shift in attention can occur consciously or unconsciously (for example, when an animal hears sounds that it associates with the approach of a predator) and the shift in attention can be sudden (Dukas, 2002; van Rij, 2007). Once a stimulus has captured an animal's attention, the animal can respond by ignoring the stimulus, assuming a "watch and wait" posture, or treat the stimulus as a disturbance and respond accordingly, which includes scanning for the source of the stimulus or "vigilance" (Cowlishaw *et al.*, 2004).

Vigilance is normally an adaptive behavior that helps animals determine the presence or absence of predators, assess their distance from conspecifics, or to attend cues from prey (Bednekoff and Lima, 1998; Treves, 2000). Despite those benefits, however, vigilance has a cost of time: when animals focus their attention on specific environmental cues, they are not attending to other activities such as foraging. These costs have been documented best in foraging animals, where vigilance has been shown to substantially reduce feeding rates (Saino, 1994; Beauchamp and Livoreil, 1997; Fritz *et al.*, 2002). Animals will spend more time being vigilant, which may translate to less time foraging or resting, when disturbance stimuli approach them more directly, remain at closer distances, have a greater group size (for example, multiple surface vessels, which, of note, will not be utilized in the NWTRC), or when they co-occur with times that an animal perceives increased risk (for example, when they are giving birth or accompanied by a calf). Most of the published literature, however, suggests that direct approaches will increase the amount of time animals will dedicate to being vigilant. For example, bighorn sheep and Dall's sheep dedicated more time to

being vigilant, and less time resting or foraging, when aircraft made direct approaches over them (Frid, 2001; Stockwell *et al.*, 1991).

Several authors have established that long-term and intense disturbance stimuli can cause population declines by reducing the body condition of individuals that have been disturbed, followed by reduced reproductive success, reduced survival, or both (Daan *et al.*, 1996; Madsen, 1994; White, 1983). For example, Madsen (1994) reported that pink-footed geese (*Anser brachyrhynchus*) in undisturbed habitat gained body mass and had about a 46-percent reproductive success rate compared with geese in disturbed habitat (being consistently scored off the fields on which they were foraging) which did not gain mass and has a 17% reproductive success rate. Similar reductions in reproductive success have been reported for mule deer (*Odocoileus hemionus*) disturbed by all-terrain vehicles (Yarmoloy *et al.*, 1988), caribou disturbed by seismic exploration blasts (Bradshaw *et al.*, 1998), caribou disturbed by low-elevation military jet-fights (Luick *et al.*, 1996), and caribou disturbed by low-elevation jet flights (Harrington and Veitch, 1992). Similarly, a study of elk (*Cervus elaphus*) that were disturbed experimentally by pedestrians concluded that the ratio of young to mothers was inversely related to disturbance rate (Phillips and Allredge, 2000).

The primary mechanism by which increased vigilance and disturbance appear to affect the fitness of individual animals is by disrupting an animal's time budget and, as a result, reducing the time they might spend foraging and resting (which increases an animal's activity rate and energy demand). For example, a study of grizzly bears (*Ursus horribilis*) reported that bears disturbed by hikers reduced their energy intake by an average of 12 kcal/min (50.2 × 10<sup>3</sup> kJ/min), and spent energy fleeing or acting aggressively toward hikers (White *et al.*, 1999). Alternately, Ridgway *et al.*, (2006) reported that increased vigilance in bottlenose dolphins exposed to sound over a five day period did not cause any sleep deprivation or stress effects such as changes in cortisol or epinephrine levels.

On a related note, many animals perform vital functions, such as feeding, resting, traveling, and socializing, on a diel cycle (24-hr cycle). Substantive behavioral reactions to noise exposure (such as disruption of critical life functions, displacement, or avoidance of important habitat) are more likely to be significant if they last more than one

diel cycle or recur on subsequent days (Southall *et al.*, 2007). Consequently, a behavioral response lasting less than one day and not recurring on subsequent days is not considered particularly severe unless it could directly affect reproduction or survival (Southall *et al.*, 2007).

#### Stranding and Mortality

When a live or dead marine mammal swims or floats onto shore and becomes "beached" or incapable of returning to sea, the event is termed a "stranding" (Geraci *et al.*, 1999; Perrin and Geraci, 2002; Geraci and Lounsbury, 2005; National Marine Fisheries Service, 2007p). The legal definition for a stranding within the United States is that (A) "a marine mammal is dead and is (i) on a beach or shore of the United States; or (ii) in waters under the jurisdiction of the United States (including any navigable waters); or (B) a marine mammal is alive and is (i) on a beach or shore of the United States and is unable to return to the water; (ii) on a beach or shore of the United States and, although able to return to the water, is in need of apparent medical attention; or (iii) in the waters under the jurisdiction of the United States (including any navigable waters), but is unable to return to its natural habitat under its own power or without assistance." (16 U.S.C. 1421h).

Marine mammals are known to strand for a variety of reasons, such as infectious agents, biotoxins, starvation, fishery interaction, ship strike, unusual oceanographic or weather events, sound exposure, or combinations of these stressors sustained concurrently or in series. However, the cause or causes of most strandings are unknown (Geraci *et al.*, 1976; Eaton, 1979; Odell *et al.*, 1980; Best, 1982). Numerous studies suggest that the physiology, behavior, habitat relationships, age, or condition of cetaceans may cause them to strand or might pre-dispose them to strand when exposed to another phenomenon. These suggestions are consistent with the conclusions of numerous other studies that have demonstrated that combinations of dissimilar stressors commonly combine to kill an animal or dramatically reduce its fitness, even though one exposure without the other does not produce the same result (Chroussos, 2000; Creel, 2005; DeVries *et al.*, 2003; Fair and Becker, 2000; Foley *et al.*, 2001; Moberg, 2000; Relyea, 2005a; 2005b; Romero, 2004; Sih *et al.*, 2004).

Several sources have published lists of mass stranding events of cetaceans in an attempt to identify relationships

between those stranding events and military active sonar (Hildebrand, 2004; IWC, 2005; Taylor *et al.*, 2004). For example, based on a review of stranding records between 1960 and 1995, the International Whaling Commission (2005) identified ten mass stranding events of Cuvier's beaked whales that had been reported and one mass stranding of four Baird's beaked whale (*Berardius bairdii*). The IWC concluded that, out of eight stranding events reported from the mid-1980s to the summer of 2003, seven had been coincident with the use of MFAS, one of those seven had been associated with the use of tactical low-frequency sonar, and the remaining stranding event had been associated with the use of seismic airguns.

Most of the stranding events reviewed by the IWC involved beaked whales. A mass stranding of Cuvier's beaked whales in the eastern Mediterranean Sea occurred in 1996 (Franz, 1998) and mass stranding events involving Gervais' beaked whales, Blainville's beaked whales, and Cuvier's beaked whales occurred off the coast of the Canary Islands in the late 1980s (Simmonds and Lopez-Jurado, 1991). The stranding events that occurred in the Canary Islands and Kyparissiakos Gulf in the late 1990s and the Bahamas in 2000 have been the most intensively-studied mass stranding events and have been associated with naval exercises involving the use of MFAS.

#### Strandings Associated With MFAS

Over the past 12 years, there have been five stranding events coincident with military mid-frequency active sonar use in which exposure to sonar is believed by NMFS and the Navy to have been a contributing factor: Greece (1996); the Bahamas (2000); Madeira (2000); Canary Islands (2002); and Spain (2006). Additionally, in 2004, during the RIMPAC exercises, between 150–200 usually pelagic melon-headed whales occupied the shallow waters of the Hanalei Bay, Kaua'i, Hawaii for over 28 hours. NMFS determined that the mid-frequency sonar was a plausible, if not likely, contributing factor in what may have been a confluence of events that led to the Hanalei Bay stranding. A number of other stranding events coincident with the operation of MFAS including the death of beaked whales or other species (minke whales, dwarf sperm whales, pilot whales) have been reported; however, the majority have not been investigated to the degree necessary to determine the cause of the stranding.

#### Greece (1996)

Twelve Cuvier's beaked whales stranded atypically (in both time and space) along a 38.2-kilometer strand of the coast of the Kyparissiakos Gulf on May 12 and 13, 1996 (Frantzis, 1998). From May 11 through May 15, the NATO research vessel Alliance was conducting active sonar tests with signals of 600 Hz and 3 kHz and source levels of 228 and 226 dB re: 1 µPa, respectively (D'Amico and Verboom, 1998; D'Spain *et al.*, 2006). The timing and the location of the testing encompassed the time and location of the whale strandings (Frantzis, 1998).

Necropsies of eight of the animals were performed but were limited to basic external examination and sampling of stomach contents, blood, and skin. No ears or organs were collected, and no histological samples were preserved. No apparent abnormalities or wounds were found (Frantzis, 2004). Examination of photos of the animals, taken soon after their death, revealed that the eyes of at least four of the individuals were bleeding. Photos were taken soon after their death (Frantzis, 2004). Stomach contents contained the flesh of cephalopods, indicating that feeding had recently taken place (Frantzis, 1998).

All available information regarding the conditions associated with this stranding event were compiled, and many potential causes were examined including major pollution events, prominent tectonic activity, unusual physical or meteorological events, magnetic anomalies, epizootics, and conventional military activities (International Council for the Exploration of the Sea, 2005a). However, none of these potential causes coincided in time or space with the mass stranding, or could explain its characteristics (International Council for the Exploration of the Sea, 2005a). The robust condition of the animals, plus the recent stomach contents, is inconsistent with pathogenic causes (Frantzis, 2004). In addition, environmental causes can be ruled out as there were no unusual environmental circumstances or events before or during this time period and within the general proximity (Frantzis, 2004).

Because of the rarity of this mass stranding of Cuvier's beaked whales in the Kyparissiakos Gulf (first one in history), the probability for the two events (the military exercises and the strandings) to coincide in time and location, while being independent of each other, was thought to be extremely low (Frantzis, 1998). However, because full necropsies had not been conducted,

and no abnormalities were noted, the cause of the strandings could not be precisely determined (Cox *et al.*, 2006). A Bioacoustics Panel convened by NATO concluded that the evidence available did not allow them to accept or reject sonar exposures as a causal agent in these stranding events. Their official finding was "An acoustic link can neither be clearly established, nor eliminated as a direct or indirect cause for the May 1996 strandings." The analysis of this stranding event provided support for, but no clear evidence for, the cause-and-effect relationship of active sonar training activities and beaked whale strandings (Cox *et al.*, 2006).

#### Bahamas (2000)

NMFS and the Navy prepared a joint report addressing the multi-species stranding in the Bahamas in 2000, which took place within 24 hours of U.S. Navy ships using MFAS as they passed through the Northeast and Northwest Providence Channels on March 15–16, 2000. The ships, which operated both AN/SQS–53C and AN/SQS–56, moved through the channel while emitting MFAS pings approximately every 24 seconds. Of the 17 cetaceans that stranded over a 36-hr period (Cuvier's beaked whales, Blainville's beaked whales, Minke whales, and a spotted dolphin), seven animals died on the beach (5 Cuvier's beaked whales, 1 Blainville's beaked whale, and the spotted dolphin), while the other 10 were returned to the water alive (though their ultimate fate is unknown). As discussed in the Bahamas report (DOC/DON, 2001), there is no likely association between the minke whale and spotted dolphin strandings and the operation of MFAS.

Necropsies were performed on five of the stranded beaked whales. All five necropsied beaked whales were in good body condition, showing no signs of infection, disease, ship strike, blunt trauma, or fishery related injuries, and three still had food remains in their stomachs. Auditory structural damage was discovered in four of the whales, specifically bloody effusions or hemorrhaging around the ears. Bilateral intracochlear and unilateral temporal region subarachnoid hemorrhage, with blood clots in the lateral ventricles, were found in two of the whales. Three of the whales had small hemorrhages in their acoustic fats (located along the jaw and in the melon).

A comprehensive investigation was conducted and all possible causes of the stranding event were considered, whether they seemed likely at the outset or not. Based on the way in which the

strandings coincided with ongoing naval activity involving tactical MFAS use, in terms of both time and geography, the nature of the physiological effects experienced by the dead animals, and the absence of any other acoustic sources, the investigation team concluded that MFAS aboard U.S. Navy ships that were in use during the active sonar exercise in question were the most plausible source of this acoustic or impulse trauma to beaked whales. This sound source was active in a complex environment that included the presence of a surface duct, unusual and steep bathymetry, a constricted channel with limited egress, intensive use of multiple, active sonar units over an extended period of time, and the presence of beaked whales that appear to be sensitive to the frequencies produced by these active sonars. The investigation team concluded that the cause of this stranding event was the confluence of the Navy MFAS and these contributory factors working together, and further recommended that the Navy avoid operating MFAS in situations where these five factors would be likely to occur. This report does not conclude that all five of these factors must be present for a stranding to occur, nor that beaked whales are the only species that could potentially be affected by the confluence of the other factors. Based on this, NMFS believes that the operation of MFAS in situations where surface ducts exist, or in marine environments defined by steep bathymetry and/or constricted channels, may increase the likelihood of producing a sound field with the potential to cause cetaceans (especially beaked whales) to strand, and therefore suggests the need for increased vigilance while operating MFAS in these areas, especially when beaked whales (or potentially other deep divers) are likely present.

#### Madeira, Spain (2000)

From May 10–14, 2000, three Cuvier's beaked whales were found atypically stranded on two islands in the Madeira archipelago, Portugal (Cox *et al.*, 2006). A fourth animal was reported floating in the Madeiran waters by fishermen but did not come ashore (Woods Hole Oceanographic Institution, 2005). Joint NATO amphibious training peacekeeping exercises involving participants from 17 countries and 80 warships, took place in Portugal during May 2–15, 2000.

The bodies of the three stranded whales were examined post mortem (Woods Hole Oceanographic Institution, 2005), though only one of the stranded whales was fresh enough (24 hours after stranding) to be necropsied (Cox *et al.*,

2006). Results from the necropsy revealed evidence of hemorrhage and congestion in the right lung and both kidneys (Cox *et al.*, 2006). There was also evidence of intercochlear and intracranial hemorrhage similar to that which was observed in the whales that stranded in the Bahamas event (Cox *et al.*, 2006). There were no signs of blunt trauma, and no major fractures (Woods Hole Oceanographic Institution, 2005). The cranial sinuses and airways were found to be clear with little or no fluid deposition, which may indicate good preservation of tissues (Woods Hole Oceanographic Institution, 2005).

Several observations on the Madeira stranded beaked whales, such as the pattern of injury to the auditory system, are the same as those observed in the Bahamas strandings. Blood in and around the eyes, kidney lesions, pleural hemorrhages, and congestion in the lungs are particularly consistent with the pathologies from the whales stranded in the Bahamas, and are consistent with stress and pressure related trauma. The similarities in pathology and stranding patterns between these two events suggest that a similar pressure event may have precipitated or contributed to the strandings at both sites (Woods Hole Oceanographic Institution, 2005).

Even though no definitive causal link can be made between the stranding event and naval exercises, certain conditions may have existed in the exercise area that, in their aggregate, may have contributed to the marine mammal strandings (Freitas, 2004): Exercises were conducted in areas of at least 547 fathoms (1,000 m) depth near a shoreline where there is a rapid change in bathymetry on the order of 547 to 3,281 (1,000–6,000 m) fathoms occurring across a relatively short horizontal distance (Freitas, 2004); multiple ships were operating around Madeira, though it is not known if MFAS was used, and the specifics of the sound sources used are unknown (Cox *et al.*, 2006, Freitas, 2004); exercises took place in an area surrounded by land masses separated by less than 35 nm (65 km) and at least 10 nm (19 km) in length, or in an embayment. Exercises involving multiple ships employing MFA near land may produce sound directed towards a channel or embayment that may cut off the lines of egress for marine mammals (Freitas, 2004).

#### Canary Islands, Spain (2002)

The southeastern area within the Canary Islands is well known for aggregations of beaked whales due to its ocean depths of greater than 547

fathoms (1,000 m) within a few hundred meters of the coastline (Fernandez *et al.*, 2005). On September 24, 2002, 14 beaked whales were found stranded on Fuerteventura and Lanzarote Islands in the Canary Islands (International Council for Exploration of the Sea, 2005a). Seven whales died, while the remaining seven live whales were returned to deeper waters (Fernandez *et al.*, 2005). Four beaked whales were found stranded dead over the next 3 days either on the coast or floating offshore. These strandings occurred within near proximity of an international naval exercise that utilized MFAS and involved numerous surface warships and several submarines. Strandings began about 4 hours after the onset of MFAS activity (International Council for Exploration of the Sea, 2005a; Fernandez *et al.*, 2005).

Eight Cuvier's beaked whales, one Blainville's beaked whale, and one Gervais' beaked whale were necropsied, six of them within 12 hours of stranding (Fernandez *et al.*, 2005). No pathogenic bacteria were isolated from the carcasses (Jepson *et al.*, 2003). The animals displayed severe vascular congestion and hemorrhage especially around the tissues in the jaw, ears, brain, and kidneys, displaying marked disseminated microvascular hemorrhages associated with widespread fat emboli (Jepson *et al.*, 2003; International Council for Exploration of the Sea, 2005a). Several organs contained intravascular bubbles, although definitive evidence of gas embolism *in vivo* is difficult to determine after death (Jepson *et al.*, 2003). The livers of the necropsied animals were the most consistently affected organ, which contained macroscopic gas-filled cavities and had variable degrees of fibrotic encapsulation. In some animals, cavity lesions had extensively replaced the normal tissue (Jepson *et al.*, 2003). Stomachs contained a large amount of fresh and undigested contents, suggesting a rapid onset of disease and death (Fernandez *et al.*, 2005). Head and neck lymph nodes were enlarged and congested, and parasites were found in the kidneys of all animals (Fernandez *et al.*, 2005).

The association of NATO MFAS use close in space and time to the beaked whale strandings, and the similarity between this stranding event and previous beaked whale mass strandings coincident with active sonar use, suggests that a similar scenario and causative mechanism of stranding may be shared between the events. Beaked whales stranded in this event demonstrated brain and auditory system

injuries, hemorrhages, and congestion in multiple organs, similar to the pathological findings of the Bahamas and Madeira strandings events. In addition, the necropsy results of the Canary Islands stranding event lead to the hypothesis that the presence of disseminated and widespread gas bubbles and fat emboli were indicative of nitrogen bubble formation, similar to what might be expected in decompression sickness (Jepson *et al.*, 2003; Fernández *et al.*, 2005).

#### Spain (2006)

The Spanish Cetacean Society reported an atypical mass stranding of four beaked whales that occurred January 26, 2006, on the southeast coast of Spain, near Mojacar (Gulf of Vera) in the Western Mediterranean Sea. According to the report, two of the whales were discovered the evening of January 26 and were found to be still alive. Two other whales were discovered during the day on January 27, but had already died. The fourth animal was found dead on the afternoon of January 27, a few kilometers north of the first three animals. From January 25–26, 2006, Standing North Atlantic Treaty Organization (NATO) Response Force Maritime Group Two (five of seven ships including one U.S. ship under NATO Operational Control) had conducted active sonar training against a Spanish submarine within 50 nm (93 km) of the stranding site.

Veterinary pathologists necropsied the two male and two female Cuvier's beaked whales. According to the pathologists, the most likely primary cause of this type of beaked whale mass stranding event was anthropogenic acoustic activities, most probably anti-submarine MFAS used during the military naval exercises. However, no positive acoustic link was established as a direct cause of the stranding. Even though no causal link can be made between the stranding event and naval exercises, certain conditions may have existed in the exercise area that, in their aggregate, may have contributed to the marine mammal strandings (Freitas, 2004): exercises were conducted in areas of at least 547 fathoms (1,000 m) depth near a shoreline where there is a rapid change in bathymetry on the order of 547 to 3,281 fathoms (1,000–6,000 m) occurring across a relatively short horizontal distance (Freitas, 2004); multiple ships (in this instance, five) were operating MFAS in the same area over extended periods of time (in this case, 20 hours) in close proximity; Exercises took place in an area surrounded by landmasses, or in an embayment. Exercises involving

multiple ships employing MFAS near land may have produced sound directed towards a channel or embayment that may have cut off the lines of egress for the affected marine mammals (Freitas, 2004).

#### Hanalei Bay (2004)

On July 3–4, 2004, approximately 150–200 melon-headed whales occupied the shallow waters of the Hanalei Bay, Kaua'i, Hawaii for over 28 hours. Attendees of a canoe blessing observed the animals entering the Bay in a single wave formation at 7 a.m. on July 3, 2004. The animals were observed moving back into the shore from the mouth of the Bay at 9 a.m. The usually pelagic animals milled in the shallow bay and were returned to deeper water with human assistance beginning at 9:30 a.m. on July 4, 2004, and were out of sight by 10:30 a.m.

Only one animal, a calf, was known to have died following this event. The animal was noted alive and alone in the Bay on the afternoon of July 4, 2004 and was found dead in the Bay the morning of July 5, 2004. A full necropsy, magnetic resonance imaging, and computerized tomography examination were performed on the calf to determine the manner and cause of death. The combination of imaging, necropsy and histological analyses found no evidence of infectious, internal traumatic, congenital, or toxic factors. Although cause of death could not be definitively determined, it is likely that maternal separation, poor nutritional condition, and dehydration contributed to the final demise of the animal. Although we do not know when the calf was separated from its mother, the movement into the Bay, the milling and re-grouping may have contributed to the separation or lack of nursing especially if the maternal bond was weak or this was a primiparous calf.

Environmental factors, abiotic and biotic, were analyzed for any anomalous occurrences that would have contributed to the animals entering and remaining in Hanalei Bay. The Bay's bathymetry is similar to many other sites within the Hawaiian Island chain and dissimilar to sites that have been associated with mass strandings in other parts of the United States. The weather conditions appeared to be normal for that time of year with no fronts or other significant features noted. There was no evidence of unusual distribution or occurrence of predator or prey species, or unusual harmful algal blooms. Weather patterns and bathymetry that have been associated with mass strandings elsewhere were not found to occur in this instance.

A separate event involving melon-headed whales and rough-toothed dolphins took place over the same period of time in the Northern Mariana Islands (Jefferson *et al.*, 2006), which is several thousand miles from Hawaii. Some 500–700 melon-headed whales came into Sasanahaya Bay on 4 July 2004 on the island of Rota and then left of their own accord after 5.5 hours; no known active sonar transmissions occurred in the vicinity of that event. Global reports of these types of events or sightings are of great interest to the scientific community and continuing efforts to enhance reporting in island nations will contribute to our increased understanding of animal behavior and potential causes of stranding events. Exactly what, if any, relationship this event has to the simultaneous events in Hawaii and whether they might be related to some common factor (*e.g.*, there was a full moon on July 2, 2004) is and will likely remain unknown. However, these two synchronous, nearshore events involving a rarely-sighted species are curious and may point to the range of potential contributing factors for which we lack detailed understanding and which the authors acknowledged might have played some role in the "confluence of events" in Hanalei Bay.

The Hanalei event was spatially and temporally correlated with RIMPAC. Official sonar training and tracking exercises in the Pacific Missile Range Facility (PMRF) warning area did not commence until approximately 8 a.m. on July 3 and were thus ruled out as a possible trigger for the initial movement into the Bay.

However, six naval surface vessels transiting to the operational area on July 2 intermittently transmitted active sonar (for approximately 9 hours total from 1:15 p.m. to 12:30 a.m.) as they approached from the south. The potential for these transmissions to have triggered the whales' movement into Hanalei Bay was investigated. Analyses with the information available indicated that animals to the south and east of Kaua'i could have detected active sonar transmissions on July 2, and reached Hanalei Bay on or before 7 a.m. on July 3, 2004. However, data limitations regarding the position of the whales prior to their arrival in the Bay, the magnitude of sonar exposure, behavioral responses of melon-headed whales to acoustic stimuli, and other possible relevant factors preclude a conclusive finding regarding the role of sonar in triggering this event. Propagation modeling suggest that transmissions from sonar use during the July 3 exercise in the PMRF warning area may

have been detectable at the mouth of the Bay. If the animals responded negatively to these signals, it may have contributed to their continued presence in the Bay. The U.S. Navy ceased all active sonar transmissions during exercises in this range on the afternoon of July 3, 2004. Subsequent to the cessation of sonar use, the animals were herded out of the Bay.

While causation of this stranding event may never be unequivocally determined, we consider the active sonar transmissions of July 2–3, 2004, a plausible, if not likely, contributing factor in what may have been a confluence of events. This conclusion is based on: (1) The evidently anomalous nature of the stranding; (2) its close spatiotemporal correlation with wide-scale, sustained use of sonar systems previously associated with stranding of deep-diving marine mammals; (3) the directed movement of two groups of transmitting vessels toward the southeast and southwest coast of Kauai; (4) the results of acoustic propagation modeling and an analysis of possible animal transit times to the Bay; and (5) the absence of any other compelling causative explanation. The initiation and persistence of this event may have resulted from an interaction of biological and physical factors. The biological factors may have included the presence of an apparently uncommon, deep-diving cetacean species (and possibly an offshore, non-resident group), social interactions among the animals before or after they entered the Bay, and/or unknown predator or prey conditions. The physical factors may have included the presence of nearby deep water, multiple vessels transiting in a directed manner while transmitting active sonar over a sustained period, the presence of surface sound ducting conditions, and/or intermittent and random human interactions while the animals were in the Bay.

#### Association Between Mass Stranding Events and Exposure to MFAS

Several authors have noted similarities between some of these stranding incidents: They occurred in islands or archipelagos with deep water nearby, several appeared to have been associated with acoustic waveguides like surface ducting, and the sound fields created by ships transmitting MFAS (Cox *et al.*, 2006, D'Spain *et al.*, 2006). Although Cuvier's beaked whales have been the most common species involved in these stranding events (81% of the total number of stranded animals), other beaked whales (including *Mesoplodon europaeus*, *M. densirostris*, and

*Hyperoodon ampullatus*) comprise 14% of the total. Other species, such as *Kogia breviceps*, have stranded in association with the operation of MFAS, but in much lower numbers and less consistently than beaked whales.

Based on the evidence available, however, we cannot determine whether (a) Cuvier's beaked whale is more prone to injury from high-intensity sound than other species, (b) their behavioral responses to sound makes them more likely to strand, or (c) they are more likely to be exposed to MFAS than other cetaceans (for reasons that remain unknown). Because the association between active sonar exposures and marine mammals mass stranding events is not consistent—some marine mammals strand without being exposed to active sonar and some sonar transmissions are not associated with marine mammal stranding events despite their co-occurrence—other risk factors or a grouping of risk factors probably contribute to these stranding events.

#### *Behaviorally Mediated Responses to MFAS That May Lead to Stranding*

Although the confluence of Navy MFAS with the other contributory factors noted in the report was identified as the cause of the 2000 Bahamas stranding event, the specific mechanisms that led to that stranding (or the others) are not understood, and there is uncertainty regarding the ordering of effects that led to the stranding. It is unclear whether beaked whales were directly injured by sound (acoustically mediated bubble growth, addressed above) prior to stranding or whether a behavioral response to sound occurred that ultimately caused the beaked whales to be injured and to strand.

Although causal relationships between beaked whale stranding events and active sonar remain unknown, several authors have hypothesized that stranding events involving these species in the Bahamas and Canary Islands may have been triggered when the whales changed their dive behavior in a startled response to exposure to active sonar or to further avoid exposure (Cox *et al.*, 2006; Rommel *et al.*, 2006). These authors proposed three mechanisms by which the behavioral responses of beaked whales upon being exposed to active sonar might result in a stranding event. These include: gas bubble formation caused by excessively fast surfacing; remaining at the surface too long when tissues are supersaturated with nitrogen; or diving prematurely when extended time at the surface is necessary to eliminate excess nitrogen.

More specifically, beaked whales that occur in deep waters that are in close proximity to shallow waters (for example, the “canyon areas” that are cited in the Bahamas stranding event; see D’Spain and D’Amico, 2006), may respond to active sonar by swimming into shallow waters to avoid further exposures and strand if they were not able to swim back to deeper waters. Second, beaked whales exposed to active sonar might alter their dive behavior. Changes in their dive behavior might cause them to remain at the surface or at depth for extended periods of time which could lead to hypoxia directly by increasing their oxygen demands or indirectly by increasing their energy expenditures (to remain at depth) and increase their oxygen demands as a result. If beaked whales are at depth when they detect a ping from an active sonar transmission and change their dive profile, this could lead to the formation of significant gas bubbles, which could damage multiple organs or interfere with normal physiological function (Cox *et al.*, 2006; Rommel *et al.*, 2006; Zimmer and Tyack, 2007). Baird *et al.*, (2005) found that slow ascent rates from deep dives and long periods of time spent within 50 m of the surface were typical for both Cuvier's and Blainville's beaked whales, the two species involved in mass strandings related to naval MFAS. These two behavioral mechanisms may be necessary to purge excessive dissolved nitrogen concentrated in their tissues during their frequent long dives (Baird *et al.*, 2005). Baird *et al.*, (2005) further suggests that abnormally rapid ascents or premature dives in response to high-intensity active sonar could indirectly result in physical harm to the beaked whales, through the mechanisms described above (gas bubble formation or non-elimination of excess nitrogen).

Because many species of marine mammals make repetitive and prolonged dives to great depths, it has long been assumed that marine mammals have evolved physiological mechanisms to protect against the effects of rapid and repeated decompressions. Although several investigators have identified physiological adaptations that may protect marine mammals against nitrogen gas supersaturation (alveolar collapse and elective circulation; Kooyman *et al.*, 1972; Ridgway and Howard, 1979). Ridgway and Howard (1979) reported that bottlenose dolphins (*Tursiops truncatus*) that were trained to dive repeatedly had muscle tissues that were substantially supersaturated with nitrogen gas. Houser *et al.* (2001) used

these data to model the accumulation of nitrogen gas within the muscle tissue of other marine mammal species and concluded that cetaceans that dive deep and have slow ascent or descent speeds would have tissues that are more supersaturated with nitrogen gas than other marine mammals. Based on these data, Cox *et al.*, (2006) hypothesized that a critical dive sequence might make beaked whales more prone to stranding in response to acoustic exposures. The sequence began with (1) very deep (to depths of up to 2 kilometers) and long (as long as 90 minutes) foraging dives with (2) relatively slow, controlled ascents, followed by (3) a series of “bounce” dives between 100 and 400 meters in depth (*also see* Zimmer and Tyack, 2007). They concluded that acoustic exposures that disrupted any part of this dive sequence (for example, causing beaked whales to spend more time at surface without the bounce dives that are necessary to recover from the deep dive) could produce excessive levels of nitrogen supersaturation in their tissues, leading to gas bubble and emboli formation that produces pathologies similar to decompression sickness.

Recently, Zimmer and Tyack (2007) modeled nitrogen tension and bubble growth in several tissue compartments for several hypothetical dive profiles and concluded that repetitive shallow dives (defined as a dive where depth does not exceed the depth of alveolar collapse, approximately 72 m for *Ziphius*), perhaps as a consequence of an extended avoidance reaction to active sonar sound, could pose a risk for decompression sickness and that this risk should increase with the duration of the response. Their models also suggested that unrealistically rapid ascent rates of ascent from normal dive behaviors are unlikely to result in supersaturation to the extent that bubble formation would be expected. Tyack *et al.*, (2006) suggested that emboli observed in animals exposed to MFAS (Jepson *et al.*, 2003; Fernandez *et al.*, 2005) could stem from a behavioral response that involves repeated dives shallower than the depth of lung collapse. Given that nitrogen gas accumulation is a passive process (*i.e.* nitrogen is metabolically inert), a bottlenose dolphin was trained to repetitively dive a profile predicted to elevate nitrogen saturation to the point that nitrogen bubble formation was predicted to occur. However, inspection of the vascular system of the dolphin via ultrasound did not demonstrate the formation of asymptomatic nitrogen gas bubbles (Houser *et al.*, 2007). Baird *et*

*al.*, (2008), in a beaked whale tagging study off Hawaii, showed that deep dives are equally common during day or night, but “bounce dives” are typically a daytime behavior, possibly associated with visual predator avoidance (Baird *et al.*, 2008). This may indicate that “bounce dives” are associated with something other than behavioral regulation of dissolved nitrogen levels, which would be necessary day and night.

Despite the many theories involving bubble formation (both as a direct cause of injury (*see* Acoustically Mediated Bubble Growth Section) and an indirect cause of stranding (*See* Behaviorally Mediated Bubble Growth Section). Southall *et al.*, (2007) summarizes that there is either scientific disagreement or a lack of information regarding each of the following important points: (1) Received acoustical exposure conditions for animals involved in stranding events; (2) pathological interpretation of observed lesions in stranded marine mammals; (3) acoustic exposure conditions required to induce such physical trauma directly; (4) whether noise exposure may cause behavioral reactions (such as atypical diving behavior) that secondarily cause bubble formation and tissue damage; and (5) the extent the post mortem artifacts introduced by decomposition before sampling, handling, freezing, or necropsy procedures affect interpretation of observed lesions.

Of note, no major ASW training exercises are proposed to be conducted in the NWTRC. The exercises utilizing MFAS will not utilize more than one surface vessel MFAS source at once. Additionally, while beaked whales may be present in the NWTRC where surface duct and steep bathymetry (in the form of sea mounts) characteristics exist, none of the training events will take place in a location having a constricted channel less than 35 miles wide or with limited egress similar to the Bahamas. Moreover, no sonar is proposed to be used in the Inshore area east of the mouth of the Strait of Juan de Fuca. Additionally, only approximately 110 hours of the highest power surface vessel MFAS use will be conducted annually (in short duration 1.5 hour exercises) in the NWTRC per year. Although the five environmental factors believed to have contributed to the Bahamas stranding (at least 3 surface vessel MFAS sources operating simultaneously or in conjunction with one another, beaked whale presence, surface ducts, steep bathymetry, and constricted channels with limited egress) will not be present during exercises in NWTRC, NMFS

recommends caution when either steep bathymetry, surface ducting conditions, or a constricted channel is present when mid-frequency active sonar is employed and cetaceans (especially beaked whales) are present.

#### **Exposure to Underwater Detonation of Explosives**

Some of the Navy's training exercises include the underwater detonation of explosives. For many of the exercises discussed, inert ordnance is used for a subset of the exercises. For exercises that involve “shooting” at a target that is above the surface of the water, underwater explosions only occur when the target is missed, which is the minority of the time (the Navy has historical hit/miss ratios and uses them in their exposure estimates). The underwater explosion from a weapon would send a shock wave and blast noise through the water, release gaseous by-products, create an oscillating bubble, and cause a plume of water to shoot up from the water surface. The shock wave and blast noise are of most concern to marine animals. Depending on the intensity of the shock wave and size, location, and depth of the animal, an animal can be injured, killed, suffer non-lethal physical effects, experience hearing related effects with or without behavioral responses, or exhibit temporary behavioral responses or tolerance from hearing the blast sound. Generally, exposures to higher levels of impulse and pressure levels would result in worse impacts to an individual animal.

Injuries resulting from a shock wave take place at boundaries between tissues of different density. Different velocities are imparted to tissues of different densities, and this can lead to their physical disruption. Blast effects are greatest at the gas-liquid interface (Landsberg, 2000). Gas-containing organs, particularly the lungs and gastrointestinal tract, are especially susceptible (Goertner, 1982; Hill, 1978; Yelverton *et al.*, 1973). In addition, gas-containing organs including the nasal sacs, larynx, pharynx, trachea, and lungs may be damaged by compression/expansion caused by the oscillations of the blast gas bubble (Reidenberg and Laitman, 2003). Intestinal walls can bruise or rupture, with subsequent hemorrhage and escape of gut contents into the body cavity. Less severe gastrointestinal tract injuries include contusions, petechiae (small red or purple spots caused by bleeding in the skin), and slight hemorrhaging (Yelverton *et al.*, 1973).

Because the ears are the most sensitive to pressure, they are the organs

most sensitive to injury (Ketten, 2000). Sound-related trauma associated with blast noise can be theoretically distinct from injury from the shock wave, particularly farther from the explosion. If an animal is able to hear a noise, at some level it can fatigue or damage its hearing by causing decreased sensitivity (Ketten, 1995) (*See* Noise-induced Threshold Shift Section above). Sound-related trauma can be lethal or sublethal. Lethal impacts are those that result in immediate death or serious debilitation in or near an intense source and are not, technically, pure acoustic trauma (Ketten, 1995). Sublethal impacts include hearing loss, which is caused by exposures to perceptible sounds. Severe damage (from the shock wave) to the ears includes tympanic membrane rupture, fracture of the ossicles, damage to the cochlea, hemorrhage, and cerebrospinal fluid leakage into the middle ear. Moderate injury implies partial hearing loss due to tympanic membrane rupture and blood in the middle ear. Permanent hearing loss also can occur when the hair cells are damaged by one very loud event, as well as by prolonged exposure to a loud noise or chronic exposure to noise. The level of impact from blasts depends on both an animal's location and, at outer zones, on its sensitivity to the residual noise (Ketten, 1995).

There have been fewer studies addressing the behavioral effects of explosives on marine mammals than MFAS/HFAS. However, though the nature of the sound waves emitted from an explosion is different (in shape and rise time) from MFAS/HFAS, we still anticipate the same sorts of behavioral responses (*see* Exposure to MFAS/HFAS: Behavioral Disturbance Section) to result from repeated explosive detonations (a smaller range of likely less severe responses would be expected to occur as a result of exposure to a single explosive detonation).

#### **Potential Effects of Vessel Movement and Collisions**

Vessel movement in the vicinity of marine mammals has the potential to result in either a behavioral response or a direct physical interaction. Both scenarios are discussed below.

#### *Vessel Movement*

There are limited data concerning marine mammal behavioral responses to vessel traffic and vessel noise, and a lack of consensus among scientists with respect to what these responses mean or whether they result in short-term or long-term adverse effects. In those cases where there is a busy shipping lane or where there is large amount of vessel

traffic, marine mammals may experience acoustic masking (Hildebrand, 2005) if they are present in the area (e.g., killer whales in Puget Sound; Foote *et al.*, 2004; Holt *et al.*, 2008). In cases where vessels actively approach marine mammals (e.g., whale watching or dolphin watching boats), scientists have documented that animals exhibit altered behavior such as increased swimming speed, erratic movement, and active avoidance behavior (Bursk, 1983; Acevedo, 1991; Baker and MacGibbon, 1991; Trites and Bain, 2000; Williams *et al.*, 2002; Constantine *et al.*, 2003), reduced blow interval (Ritcher *et al.*, 2003), disruption of normal social behaviors (Lusseau, 2003; 2006), and the shift of behavioral activities which may increase energetic costs (Constantine *et al.*, 2003; 2004). A detailed review of marine mammal reactions to ships and boats is available in Richardson *et al.* (1995). For each of the marine mammals taxonomy groups, Richardson *et al.* (1995) provided the following assessment regarding cetacean reactions to vessel traffic:

**Toothed whales:** "In summary, toothed whales sometimes show no avoidance reaction to vessels, or even approach them. However, avoidance can occur, especially in response to vessels of types used to chase or hunt the animals. This may cause temporary displacement, but we know of no clear evidence that toothed whales have abandoned significant parts of their range because of vessel traffic."

**Baleen whales:** "When baleen whales receive low-level sounds from distant or stationary vessels, the sounds often seem to be ignored. Some whales approach the sources of these sounds. When vessels approach whales slowly and non-aggressively, whales often exhibit slow and inconspicuous avoidance maneuvers. In response to strong or rapidly changing vessel noise, baleen whales often interrupt their normal behavior and swim rapidly away. Avoidance is especially strong when a boat heads directly toward the whale."

It is important to recognize that behavioral responses to stimuli are complex and influenced to varying degrees by a number of factors such as species, behavioral contexts, geographical regions, source characteristics (moving or stationary, speed, direction, etc.), prior experience of the animal, and physical status of the animal. For example, studies have shown that beluga whales reacted differently when exposed to vessel noise and traffic. In some cases, nava beluga whales exhibited rapid swimming from ice-breaking vessels up to 80 km away,

and showed changes in surfacing, breathing, diving, and group composition in the Canadian high Arctic where vessel traffic is rare (Finley *et al.*, 1990). In other cases, beluga whales were more tolerant of vessels, but differentially responsive by reducing their calling rates, to certain vessels and operating characteristics (especially older animals) in the St. Lawrence River where vessel traffic is common (Blane and Jaakson, 1994). In Bristol Bay, Alaska, beluga whales continued to feed when surrounded by fishing vessels and resisted dispersal even when purposefully harassed (Fish and Vania, 1971).

In reviewing more than 25 years of whale observation data, Watkins (1986) concluded that whale reactions to vessel traffic were "modified by their previous experience and current activity; habituation often occurred rapidly, attention to other stimuli or preoccupation with other activities sometimes overcame their interest or wariness of stimuli." Watkins noticed that over the years of exposure to ships in the Cape Cod area, minke whales (*Balaenoptera acutorostrata*) changed from frequent positive (such as approaching vessels) interest to generally uninterested reactions; finback whales (*B. physalus*) changed from mostly negative (such as avoidance) to uninterested reactions; right whales (*Eubalaena glacialis*) apparently continued the same variety of responses (negative, uninterested, and positive responses) with little change; and humpbacks (*Megaptera novaeangliae*) dramatically changed from mixed responses that were often negative to often strongly positive reactions. Watkins (1986) summarized that "whales near shore, even in regions with low vessel traffic, generally have become less wary of boats and their noises, and they have appeared to be less easily disturbed than previously. In particular locations with intense shipping and repeated approaches by boats (such as the whale-watching areas of Stellwagen Bank), more and more whales had P [positive] reactions to familiar vessels, and they also occasionally approached other boats and yachts in the same ways."

The Northwest Training Range Complex is well traveled by a variety of commercial and recreational vessels and a fair portion of the marine mammals in the area are expected to be habituated to vessel noise. Washington state handles seven percent of the country's exports and six percent of its imports. Cruise ships make daily use of the Seattle Port. A substantial volume of small boat traffic, primarily recreational, occurs

throughout Puget Sound, which has 244 marinas with 39,400 moorage slips and another 331 launch sites for smaller boats.

As described in the Description of the Specified Activity section, training exercises involving vessel movements occur intermittently and are variable in duration, ranging from a few hours up to 2 weeks. During training, speeds vary and depend on the specific type of activity, although 10–14 knots is considered the typical speed. Approximately 490 activities that involve Navy vessels occur within the Study Area during a typical year. Training activities are widely dispersed throughout the large OPAREA, which encompasses 122,468 nm<sup>2</sup> (420,054 km<sup>2</sup>). Consequently, the density of Navy ships within the Study Area at any given time is low.

Moreover, naval vessels transiting the study area or engaging in the training exercises will not actively or intentionally approach a marine mammal or change speed drastically. While in transit, naval vessels will be alert at all times, use extreme caution, and proceed at a "safe speed" so that the vessel can take proper and effective action to avoid a collision with any marine animal and can be stopped within a distance appropriate to the prevailing circumstances and conditions. When whales have been sighted in the area, Navy vessels will increase vigilance and take reasonable and practicable actions to avoid collisions and activities that might result in close interaction of naval assets and marine mammals. Actions may include changing speed and/or direction and would be dictated by environmental and other conditions (e.g., safety, weather).

Although the radiated sound from Navy vessels will be audible to marine mammals over a large distance, it is unlikely that animals will respond behaviorally (in a manner that NMFS would consider MMPA harassment) to low-level distant shipping noise as the animals in the area are likely to be habituated to such noises (Nowacek *et al.*, 2004). In light of these facts, NMFS does not expect the Navy's vessel movements to result in Level B harassment.

#### Vessel Strike

Commercial and Navy ship strikes of cetaceans can cause major wounds, which may lead to the death of the animal. An animal at the surface could be struck directly by a vessel, a surfacing animal could hit the bottom of a vessel, or an animal just below the surface could be cut by a vessel's

propeller. The severity of injuries typically depends on the size and speed of the vessel (Knowlton and Kraus, 2001; Laist *et al.*, 2001; Vanderlaan and Taggart, 2007).

The most vulnerable marine mammals are those that spend extended periods of time at the surface in order to restore oxygen levels within their tissues after deep dives (for example, the sperm whale). In addition, some baleen whales, such as the North Atlantic right whale seem generally unresponsive to vessel sound, making them more susceptible to vessel collisions (Nowacek *et al.*, 2004). These species are primarily large, slow-moving whales. Smaller marine mammals (for example, bottlenose dolphin) move quickly through the water column and are often seen riding the bow wave of large ships. Marine mammal responses to vessels may include avoidance and changes in dive pattern (NRC, 2003).

An examination of all known ship strikes from all shipping sources (civilian and military) indicates vessel speed is a principal factor in whether a vessel strike results in death (Knowlton and Kraus, 2001; Laist *et al.*, 2001; Jensen and Silber, 2003; Vanderlaan and Taggart, 2007). In assessing records in which vessel speed was known, Laist *et al.* (2001) found a direct relationship between the occurrence of a whale strike and the speed of the vessel involved in the collision. The authors concluded that most deaths occurred when a vessel was traveling in excess of 13 knots.

Jensen and Silber (2003) detailed 292 records of known or probable ship strikes of all large whale species from 1975 to 2002. Of these, vessel speed at the time of collision was reported for 58 cases. Of these cases, 39 (or 67%) resulted in serious injury or death (19 or 33% resulted in serious injury as determined by blood in the water, propeller gashes or severed tailstock, and fractured skull, jaw, vertebrae, hemorrhaging, massive bruising or other injuries noted during necropsy and 20 to 35% resulted in death). Operating speeds of vessels that struck various species of large whales ranged from 2 to 51 knots. The majority (79%) of these strikes occurred at speeds of 13 knots or greater. The average speed that resulted in serious injury or death was 18.6 knots. Pace and Silber (2005) found that the probability of death or serious injury increased rapidly with increasing vessel speed. Specifically, the predicted probability of serious injury or death increased from 45% to 75% as vessel speed increased from 10 to 14 knots, and exceeded 90% at 17 knots. Higher speeds during collisions result in greater

force of impact, but higher speeds also appear to increase the chance of severe injuries or death by pulling whales toward the vessel. Computer simulation modeling showed that hydrodynamic forces pulling whales toward the vessel hull increase with increasing speed (Clyne, 1999, Knowlton *et al.*, 1995). The Jensen and Silber (2003) report notes that the database represents a minimum number of collisions, because the vast majority probably go undetected or unreported. In contrast, Navy vessels are likely to detect any strike that does occur, and they are required to report all ship strikes involving marine mammals. Overall, the percentages of Navy traffic relative to overall large shipping traffic are very small (on the order of 2%).

The ability of a ship to avoid a collision and to detect a collision depends on a variety of factors, including environmental conditions, ship design, size, and manning. The majority of ships participating in NWTRC training activities have a number of advantages for avoiding ship strikes as compared to most commercial merchant vessels, including the following:

- Navy ships have their bridges positioned forward, offering good visibility ahead of the bow.
- Crew size is much larger than that of merchant ships allowing for more potential observers on the bridge.
- Dedicated lookouts are posted during a training activity scanning the ocean for anything detectable in the water; anything detected is reported to the Officer of the Deck.
- Navy lookouts receive extensive training including Marine Species Awareness Training designed to provide marine species detection cues and information necessary to detect marine mammals.
- Navy ships are generally much more maneuverable than commercial merchant vessels.

The Navy has adopted mitigation measures to reduce the potential for collisions with surfaced marine mammals. For a thorough discussion of mitigation measures, please see the Mitigation section. Briefly, these measures include:

- At all times when vessels are underway, trained lookouts are used to detect all objects on the surface of the water, including marine mammals.
- Reasonable and prudent actions are implemented to avoid the close interaction of Navy assets and marine mammals.
- While in transit, naval vessels will be alert at all times, use extreme caution, and proceed at a "safe speed"

so that the vessel can take proper and effective action to avoid a collision with any marine animal and can be stopped within a distance appropriate to the prevailing circumstances and conditions.

Based on the implementation of Navy mitigation measures and the relatively low density of Navy ships in the Study Area, NMFS has concluded preliminarily that the probability of a ship strike is very low, especially for dolphins and porpoises, killer whales, social pelagic odontocetes and pinnipeds that are highly visible, and/or comparatively small and maneuverable. Though more probable, NMFS also believes that the likelihood of a Navy vessel striking a mysticete or sperm whale is low. The Navy did not request take from a ship strike and based on our preliminary determination, NMFS is not recommending that they modify their request at this time. However, NMFS is currently engaged in an internal Section 7 consultation under the ESA and the outcome of that consultation will further inform our final decision.

#### Mitigation

In order to issue an incidental take authorization (ITA) under Section 101(a)(5)(A) of the MMPA, NMFS must set forth the "permissible methods of taking pursuant to such activity, and other means of effecting the least practicable adverse impact on such species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance." The NDAA of 2004 amended the MMPA as it relates to military-readiness activities and the ITA process such that "least practicable adverse impact" shall include consideration of personnel safety, practicality of implementation, and impact on the effectiveness of the "military readiness activity." The training activities described in the NWTRC application are considered military readiness activities.

NMFS reviewed the proposed NWTRC activities and the proposed NWTRC mitigation measures as described in the Navy's LOA application to determine if they would result in the least practicable adverse effect on marine mammals, which includes a careful balancing of the likely benefit of any particular measure to the marine mammals with the likely effect of that measure on personnel safety, practicality of implementation, and impact on the effectiveness of the "military-readiness activity." NMFS determined that further discussion was necessary regarding the use of MFAS/

HFAS for training in the Inshore Area that contains the southern resident killer whale critical habitat.

To address the concerns above, the Navy clarified for NMFS (subsequent to their submittal of the LOA application) that no training utilizing MFAS/HFAS had occurred in the Inshore Area of NWTRC for the last six years, that it is not being conducted now, and that there are no plans to utilize MFAS/HFAS in the Inshore Area. This information has been factored into NMFS' effects analysis. Because MFAS/HFAS will not be used in this area, there is no reason to authorize take from these activities. However, the Navy indicated that should their plans change in the future they will request authorization under the MMPA. The Navy further explained that no explosive training occurs in the Inshore Area other than the annual detonation of four 2.5lb charges, which are not anticipated to result in the take of marine mammals. Included below are the mitigation measures the Navy proposed (see "Mitigation Measures Proposed in the Navy's LOA Application")

#### *Mitigation Measures Proposed in the Navy's LOA Application*

This section includes the protective measures proposed by the Navy and is taken directly from their application (with the exception of headings, which have been modified for increased clarity within the context of this proposed rule). In their proposed mitigation, the Navy has included measures to protect sea turtles—those measures are included here as part of the Navy's proposed action. Although measures to protect sea turtles are important, they are not required by the MMPA, and therefore, will not be codified through this regulation or required in any subsequent MMPA LOA. Measures to protect sea turtles will, however, be addressed in the Endangered Species Act section 7 consultation.

#### **General Maritime Measures for All Training at Sea**

##### *Personnel Training (for All Training Types)*

The use of shipboard lookouts is a critical component of all Navy protective measures. Lookout duties require that they report all objects sighted in the water to the officer of the deck (OOD) (e.g., trash, a periscope, marine mammals, sea turtles) and all disturbances (e.g., surface disturbance, discoloration) that may be indicative of a threat to the vessel and its crew. There are personnel serving as lookouts on station at all times (day and night) when

a ship or surfaced submarine is moving through the water.

- All commanding officers (COs), executive officers (XOs), lookouts, officers of the deck (OODs), junior OODs (JOODs), maritime patrol aircraft aircrews, and Anti-submarine Warfare (ASW)/Mine Warfare (MIW) helicopter crews will complete the NMFS-approved Marine Species Awareness Training (MSAT) by viewing the U.S. Navy MSAT digital versatile disk (DVD). All bridge lookouts will complete both parts one and two of the MSAT; part two is optional for other personnel. This training addresses the lookout's role in environmental protection, laws governing the protection of marine species, Navy stewardship commitments and general observation information to aid in avoiding interactions with marine species.
- Navy lookouts will undertake extensive training in order to qualify as a watchstander in accordance with the Lookout Training Handbook (Naval Education and Training Command [NAVEDTRA] 12968–D).
- Lookout training will include on-the-job instruction under the supervision of a qualified, experienced lookout. Following successful completion of this supervised training period, lookouts will complete the Personal Qualification Standard Program, certifying that they have demonstrated the necessary skills (such as detection and reporting of partially submerged objects). Personnel being trained as lookouts can be counted among those listed below as long as supervisors monitor their progress and performance.
- Lookouts will be trained in the most effective means to ensure quick and effective communication within the command structure in order to facilitate implementation of protective measures if marine species are spotted.

##### *Operating Procedures and Collision Avoidance (for All Training Types)*

- Prior to major exercises, a Letter of Instruction, Mitigation Measures Message or Environmental Annex to the Operational Order will be issued to further disseminate the personnel training requirement and general marine species protective measures.
- COs will make use of marine species detection cues and information to limit interaction with marine species to the maximum extent possible consistent with safety of the ship.
- While underway, surface vessels will have at least two lookouts with binoculars; surfaced submarines will have at least one lookout with binoculars. Lookouts already posted for

safety of navigation and man-overboard precautions may be used to fill this requirement. As part of their regular duties, lookouts will watch for and report to the OOD the presence of marine mammals.

- On surface vessels equipped with a multi-function active sensor, pedestal mounted "Big Eye" (20x110) binoculars will be properly installed and in good working order to assist in the detection of marine mammals in the vicinity of the vessel.
- Personnel on lookout will employ visual search procedures employing a scanning methodology in accordance with the Lookout Training Handbook (NAVEDTRA 12968–D).
- After sunset and prior to sunrise, lookouts will employ Night Lookouts Techniques in accordance with the Lookout Training Handbook (NAVEDTRA 12968–D).
- While in transit, naval vessels will be alert at all times, use extreme caution, and proceed at a "safe speed" so that the vessel can take proper and effective action to avoid a collision with any marine animal and can be stopped within a distance appropriate to the prevailing circumstances and conditions.
- When whales have been sighted in the area, Navy vessels will increase vigilance and take reasonable and practicable actions to avoid collisions and activities that might result in close interaction of naval assets and marine mammals. Actions may include changing speed and/or direction and would be dictated by environmental and other conditions (e.g., safety, weather).
- Navy aircraft participating in exercises at sea will conduct and maintain, when operationally feasible and safe, surveillance for marine species of concern as long as it does not violate safety constraints or interfere with the accomplishment of primary operational duties. Marine mammal detections will be immediately reported to assigned Aircraft Control Unit for further dissemination to ships in the vicinity of the marine species as appropriate where it is reasonable to conclude that the course of the ship will likely result in a closing of the distance to the detected marine mammal.

#### **Measures for MFAS Operations**

##### *Personnel Training (for MFAS Operations)*

- All lookouts onboard platforms involved in ASW training events will review the NMFS-approved Marine Species Awareness Training material prior to use of mid-frequency active sonar.

- All COs, XOs, and officers standing watch on the bridge will have reviewed the Marine Species Awareness Training material prior to a training event employing the use of MFAS/HFAS.
- Navy lookouts will undertake extensive training in order to qualify as a watchstander in accordance with the Lookout Training Handbook (Naval Educational Training [NAVEDTRA], 12968–D).
- Lookout training will include on-the-job instruction under the supervision of a qualified, experienced watchstander. Following successful completion of this supervised training period, lookouts will complete the Personal Qualification Standard program, certifying that they have demonstrated the necessary skills (such as detection and reporting of partially submerged objects). This does not forbid personnel being trained as lookouts from being counted as those listed in previous measures so long as supervisors monitor their progress and performance.
- Lookouts will be trained in the most effective means to ensure quick and effective communication within the command structure in order to facilitate implementation of mitigation measures if marine species are spotted.

##### *Lookout and Watchstander Responsibilities (for MFAS Operations)*

- On the bridge of surface ships, there will always be at least three people on watch whose duties include observing the water surface around the vessel.
- All surface ships participating in ASW training events will, in addition to the three personnel on watch noted previously, have at all times during the exercise at least two additional personnel on watch as marine mammal lookouts.
- Personnel on lookout and officers on watch on the bridge will have at least one set of binoculars available for each person to aid in the detection of marine mammals.
- Personnel on lookout will be responsible for reporting all objects or anomalies sighted in the water (regardless of the distance from the vessel) to the Officer of the Deck, since any object or disturbance (e.g., trash, periscope, surface disturbance, discoloration) in the water may be indicative of a threat to the vessel and its crew or indicative of a marine species that may need to be avoided as warranted.

##### *Operating Procedures (for MFAS Operations)*

- All personnel engaged in passive acoustic sonar operation (including

aircraft, surface ships, or submarines) will monitor for marine mammal vocalizations and report the detection of any marine mammal to the appropriate watch station for dissemination and appropriate action.

- During MFAS operations, personnel will utilize all available sensor and optical systems (such as night vision goggles) to aid in the detection of marine mammals.
- Navy aircraft participating in exercises at sea will conduct and maintain, when operationally feasible and safe, surveillance for marine species of concern as long as it does not violate safety constraints or interfere with the accomplishment of primary operational duties.
- Aircraft with deployed sonobuoys will use only the passive capability of sonobuoys when marine mammals are detected within 200 yds (183 m) of the sonobuoy.
- Marine mammal detections will be immediately reported to assigned Aircraft Control Unit for further dissemination to ships in the vicinity of the marine species as appropriate where it is reasonable to conclude that the course of the ship will likely result in a closing of the distance to the detected marine mammal.
- *Safety Zones*—When marine mammals are detected by any means (aircraft, shipboard lookout, or acoustically) within or closing to inside 1,000 yds (914 m) of the sonar dome (the bow), the ship or submarine will limit active transmission levels to at least 6 decibels (dB) below normal operating levels (a 6-dB reduction equals a 75-percent reduction in power).
- Ships and submarines will continue to limit maximum transmission levels by this 6-dB factor until the animal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yds (1829 m) beyond the location of the last detection.
- Should a marine mammal be detected within or closing to inside 500 yds (457 m) of the sonar dome, active sonar transmissions will be limited to at least 10 dB below the equipment's normal operating level. (A 10-dB reduction equates to a 90-percent power reduction from normal operating levels.) Ships and submarines will continue to limit maximum ping levels by this 10-dB factor until the animal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yds (1829 m) beyond the location of the last detection.
- Should the marine mammal be detected within or closing to inside 200

yd (183 m) of the sonar dome, active sonar transmissions will cease. Active sonar will not resume until the animal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yds (1829 m) beyond the location of the last detection.

■ Special conditions applicable for dolphin and porpoise only: If, after conducting an initial maneuver to avoid close quarters with dolphin or porpoise, the OOD concludes that dolphin or porpoise are deliberately closing to ride the vessel's bow wave, no further mitigation actions would be necessary while the dolphin or porpoise continue to exhibit bow wave riding behavior.

■ If the need for power-down should arise as detailed in "Safety Zones" above, the Navy shall follow the requirements as though they were operating at 235 dB—the normal operating level (i.e., the first power-down will be to 229 dB, regardless of what level above 235 dB active sonar was being operated).

- Prior to start up or restart of active sonar, operators will check that the Safety Zone radius around the sound source is clear of marine mammals.
- *Active sonar levels (generally)*—Navy will operate sonar at the lowest practicable level, not to exceed 235 dB, except as required to meet tactical training objectives.
- Submarine sonar operators will review detection indicators of close-aboard marine mammals prior to the commencement of ASW training events involving MFAS.

#### **Measures for Underwater Detonations Surface-to-Surface Gunnery (Non-Explosive Rounds)**

- A 200-yd (183 m) radius buffer zone will be established around the intended target.
- From the intended firing position, trained lookouts will survey the buffer zone for marine mammals prior to commencement and during the exercise as long as practicable. Due to the distance between the firing position and the buffer zone, lookouts are only expected to visually detect breaching whales, whale blows, and large pods of dolphins and porpoises.
- If applicable, target towing vessels will maintain a lookout. If a marine mammal is sighted in the vicinity of the exercise, the tow vessel will immediately notify the firing vessel in order to secure gunnery firing until the area is clear.
- The exercise will be conducted only when the buffer zone is visible and marine mammals are not detected

within the target area and the buffer zone.

#### Surface-to-Air Gunnery (Explosive and Non-Explosive Rounds)

- Vessels will orient the geometry of gunnery exercises in order to prevent debris from falling in the area of sighted marine mammals, algal mats, and floating kelp.
- Vessels will expedite the recovery of any parachute deploying aerial targets to reduce the potential for entanglement of marine mammals.
- Target towing aircraft shall maintain a lookout. If a marine mammal is sighted in the vicinity of the exercise, the tow aircraft will immediately notify the firing vessel in order to secure gunnery firing until the area is clear.

#### Air-to-Surface At-Sea Bombing Exercises (Explosive and Non-Explosive)

- If surface vessels are involved, trained lookouts will survey for floating kelp, which may be inhabited by marine mammals. Ordnance shall not be targeted to impact within 1,000 yds (914 m) of known or observed floating kelp or marine mammals.
- A 1,000 yd (914 m) radius buffer zone will be established around the intended target.
- Aircraft will visually survey the target and buffer zone for marine mammals prior to and during the exercise. The survey of the impact area will be made by flying at 1,500 ft (457 m) or lower, if safe to do so, and at the slowest safe speed. Release of ordnance through cloud cover is prohibited: Aircraft must be able to actually see ordnance impact areas. Survey aircraft should employ most effective search tactics and capabilities.
- The exercise will be conducted only if marine mammals are not visible within the buffer zone.

#### Air-to-Surface Missile Exercises (Explosive and Non-Explosive)

- Aircraft will visually survey the target area for marine mammals. Visual inspection of the target area will be made by flying at 1,500 (457 m) feet or lower, if safe to do so, and at slowest safe speed. Firing or range clearance aircraft must be able to actually see ordnance impact areas. Explosive ordnance shall not be targeted to impact within 1,800 yds (1646 m) of sighted marine mammals.

#### Underwater Detonations (Up to 2.5-lb Charges)

*Exclusion Zones*—All Mine Warfare and Mine Countermeasures Operations involving the use of explosive charges

must include exclusion zones for marine mammals to prevent physical and/or acoustic effects to those species. These exclusion zones shall extend in a 700-yard arc (640 yd) radius around the detonation site.

*Pre-Exercise Surveys*—For Demolition and Ship Mine Countermeasures Operations, pre-exercise surveys shall be conducted within 30 minutes prior to the commencement of the scheduled explosive event. The survey may be conducted from the surface, by divers, and/or from the air, and personnel shall be alert to the presence of any marine mammal. Should such an animal be present within the survey area, the explosive event shall not be started until the animal voluntarily leaves the area. The Navy will ensure the area is clear of marine mammals for a full 30 minutes prior to initiating the explosive event. Personnel will record any marine mammal observations during the exercise as well as measures taken if species are detected within the exclusion zone.

*Post-Exercise Surveys*—Surveys within the same radius shall also be conducted within 30 minutes after the completion of the explosive event.

*Reporting*—If there is evidence that a marine mammal may have been stranded, injured or killed by the action, Navy training activities will be suspended immediately and the situation reported immediately by the participating unit to the Officer in Charge of the Exercise (OCE), who will follow Navy procedures for reporting the incident to Commander, Pacific Fleet, Commander, Navy Region Southwest, Environmental Director, and the chain-of-command. The situation will also be reported to NMFS immediately or as soon as clearance procedures allow.

#### Sinking Exercise

The selection of sites suitable for SINKEXs involves a balance of operational suitability, requirements established under the Marine Protection, Research and Sanctuaries Act (MPRSA) permit granted to the Navy (40 CFR 229.2), and the identification of areas with a low likelihood of encountering ESA-listed species. To meet operational suitability criteria, the locations of SINKEXs must be within a reasonable distance of the target vessels' originating location. The locations should also be close to active military bases to allow participating assets access to shore facilities. For safety purposes, these locations should also be in areas that are not generally used by non-military air or watercraft. The MPRSA permit requires vessels to

be sunk in waters which are at least 6000 ft (1829 m) deep and at least 50 nm from land. In general, most listed species prefer areas with strong bathymetric gradients and oceanographic fronts for significant biological activity such as feeding and reproduction. Typical locations include the continental shelf and shelf-edge.

The Navy has developed range clearance procedures to maximize the probability of sighting any ships or marine mammal in the vicinity of an exercise, which are as follows:

- All weapons firing would be conducted during the period 1 hour after official sunrise to 30 minutes before official sunset.

- Extensive range clearance activities would be conducted in the hours prior to commencement of the exercise, ensuring that no shipping is located within the hazard range of the longest-range weapon being fired for that event.
- An exclusion zone with a radius of 1.0 nm (1.9 km) would be established around each target. This exclusion zone is based on calculations using a 990-lb (450-kg) H6 net explosive weight high explosive source detonated 5 ft (1.5 m) below the surface of the water, which yields a distance of 0.85 nm (1.57 km) (cold season) and 0.89 nm (1.65 km) (warm season) beyond which the received level is below the 182 decibels (dB) re: 1 micropascal squared-seconds ( $\mu\text{Pa}^2\text{-s}$ ) threshold established for the WINSTON S. CHURCHILL (DDG 81) shock trials (U.S. Navy, 2001). An additional buffer of 0.5 nm (0.9 km) would be added to account for errors, target drift, and animal movements. Additionally, a safety zone, which would extend beyond the buffer zone by an additional 0.5 nm (0.9 km), would be surveyed. Together, the zones extend out 2 nm (3.7 km) from the target.
- A series of surveillance overflights shall be conducted prior to the event to ensure that no marine mammals are present in the exclusion zone. Survey protocol will be as follows:

- Overflights within the exclusion zone would be conducted in a manner that optimizes the surface area of the water observed. This may be accomplished through the use of the Navy's Search and Rescue Tactical Aid, which provides the best search altitude, ground speed, and track spacing for the discovery of small, possibly dark objects in the water based on the environmental conditions of the day. These environmental conditions include the angle of sun inclination, amount of daylight, cloud cover, visibility, and sea state.
- All visual surveillance activities would be conducted by Navy personnel

trained in visual surveillance. At least one member of the mitigation team would have completed the Navy's marine mammal training program for lookouts.

- In addition to the overflights, the exclusion zone would be monitored by passive acoustic means, when assets are available. This passive acoustic monitoring would be maintained throughout the exercise. Potential assets include sonobuoys, which can be utilized to detect any vocalizing marine mammals (particularly sperm whales) in the vicinity of the exercise. The sonobuoys would be re-seeded as necessary throughout the exercise. Additionally, passive sonar onboard submarines may be utilized to detect any vocalizing marine mammals in the area. The OCE would be informed of any aural detection of marine mammals and would include this information in the determination of when it is safe to commence the exercise.
- On each day of the exercise, aerial surveillance of the exclusion and safety zones would commence 2 hours prior to the first firing.
- The results of all visual, aerial, and acoustic searches would be reported immediately to the OCE. No weapons launches or firing would commence until the OCE declares the safety and exclusion zones free of marine mammals and threatened and endangered species.
- If a marine mammal observed within the exclusion zone is diving, firing would be delayed until the animal is re-sighted outside the exclusion zone, or 30 minutes have elapsed, whichever occurs first. After 30 minutes, if the animal has not been re-sighted it would be assumed to have left the exclusion zone. The OCE would determine if the marine mammal is in danger of being adversely affected by commencement of the exercise.
- During breaks in the exercise of 30 minutes or more, the exclusion zone would again be surveyed for any marine mammal. If a marine mammal is sighted within the exclusion zone, the OCE would be notified, and the procedure described above would be followed.
- Upon sinking of the vessel, a final surveillance of the exclusion zone would be monitored for 2 hours, or until sunset, to verify that no marine mammals were harmed.
- Aerial surveillance would be conducted using helicopters or other aircraft based on necessity and availability. The Navy has several types of aircraft capable of performing this task; however, not all types are available for every exercise. For each exercise, the available asset best suited for

identifying objects on and near the surface of the ocean would be used. These aircraft would be capable of flying at the slow safe speeds necessary to enable viewing of marine vertebrates with unobstructed, or minimally obstructed, downward and outward visibility. The exclusion and safety zone surveys may be cancelled in the event that a mechanical problem, emergency search and rescue, or other similar and unexpected event preempts the use of one of the aircraft onsite for the exercise.

- Every attempt would be made to conduct the exercise in sea states that are ideal for marine mammal sighting—Beaufort Sea State 3 or less. In the event of a sea state of 4 or above, survey efforts would be increased within the zones. This would be accomplished through the use of an additional aircraft, if available, and conducting tight search patterns.
- The exercise would not be conducted unless the exclusion zone could be adequately monitored visually. Should low cloud cover or surface visibility prevent adequate visual monitoring as described previously, the exercise would be delayed until conditions improved, and all of the above monitoring criteria could be met.
- In the unlikely event that any marine mammal is observed to be harmed in the area, a detailed description of the animal would be taken, the location noted, and if possible, photos taken. This information would be provided to NMFS via the Navy's regional environmental coordinator for purposes of identification (see the draft Stranding Plan for detail).
- An after action report detailing the exercise's time line, the time the surveys commenced and terminated, amount, and types of all ordnance expended, and the results of survey efforts for each event would be submitted to NMFS.

#### Explosive Source Sonobuoys Used in EER/IEER (AN/SSQ-110A)

- Crews will conduct visual reconnaissance of the drop area prior to laying their intended sonobuoy pattern. This search should be conducted below 457 m (500 yd) at a slow speed, if operationally feasible and weather conditions permit. In dual aircraft operations, crews are allowed to conduct coordinated area clearances.
- Crews shall conduct a minimum of 30 minutes of visual and aural monitoring of the search area prior to commanding the first post detonation. This 30-minute observation period may include pattern deployment time.

- For any part of the briefed pattern where a post (source/receiver sonobuoy pair) will be deployed within 914 m (1,000 yd) of observed marine mammal activity, deploy the receiver ONLY and monitor while conducting a visual search. When marine mammals are no longer detected within 914 m (1,000 yd) of the intended post position, co-locate the explosive source sonobuoy (AN/SSQ-110A) (source) with the receiver.
- When operationally feasible, crews will conduct continuous visual and aural monitoring of marine mammal activity. This is to include monitoring of own-aircraft sensors from first sensor placement to checking off station and out of RF range of these sensors.
- *Aural Detection*—If the presence of marine mammals is detected aurally, then that should cue the aircrew to increase the diligence of their visual surveillance. Subsequently, if no marine mammals are visually detected, then the crew may continue multi-static active search.
- *Visual Detection*—If marine mammals are visually detected within 914 m (1,000 yd) of the explosive source sonobuoy (AN/SSQ-110A) intended for use, then that payload shall not be detonated. Aircrews may utilize this post once the marine mammals have not been re-sighted for 30 minutes, or are observed to have moved outside the 914 m (1,000 yd) safety buffer, whichever occurs first. Aircrews may shift their multi-static active search to another post, where marine mammals are outside the 914 m (1,000 yd) safety buffer.
- Aircrews shall make every attempt to manually detonate the unexploded charges at each post in the pattern prior to departing the operations area by using the "Payload 1 Release" command followed by the "Payload 2 Release" command. Aircrews shall refrain from using the "Scuttle" command when two payloads remain at a given post. Aircrews will ensure that a 914 m (1,000 yd) safety buffer, visually clear of marine mammals, is maintained around each post as is done during active search operations.
- Aircrews shall only leave posts with unexploded charges in the event of a sonobuoy malfunction, an aircraft system malfunction, or when an aircraft must immediately depart the area due to issues such as fuel constraints, inclement weather, and in-flight emergencies. In these cases, the sonobuoy will self-scuttle using the secondary (detonation occurs by timer approximately 6 hours after water entry) or tertiary (detonation occurs by salt water soluble plug approximately 12 hours after water entry) method.

- Aircrews shall ensure all payloads are accounted for. Explosive source sonobuoys (AN/SSQ-110A) that cannot be scuttled shall be reported as unexploded ordnance via voice communications while airborne, then upon landing via naval message.
- Mammal monitoring shall continue until out of own-aircraft sensor range.

#### Mitigation Conclusions

NMFS has carefully evaluated the Navy's proposed mitigation measures and considered a broad range of other measures in the context of ensuring that NMFS prescribes the means of effecting the least practicable adverse impact on the affected marine mammal species and stocks and their habitat. Our evaluation of potential measures included consideration of the following factors in relation to one another:

- The manner in which, and the degree to which, the successful implementation of the measure is expected to minimize adverse impacts to marine mammals.
- The proven or likely efficacy of the specific measure to minimize adverse impacts as planned.
- The practicability of the measure for applicant implementation, including consideration of personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

In some cases, additional mitigation measures are required beyond those that the applicant proposes. Any mitigation measure(s) prescribed by NMFS should be able to accomplish, have a reasonable likelihood of accomplishing (based on current science), or contribute to the accomplishment of one or more of the general goals listed below:

(a) Avoidance or minimization of injury or death of marine mammals wherever possible (goals b, c, and d may contribute to this goal).

(b) A reduction in the numbers of marine mammals (total number or number at biologically important time or location) exposed to received levels of MFAS/HFAS, underwater detonations, or other activities expected to result in the take of marine mammals (this goal may contribute to a, above, or to reducing harassment takes only).

(c) A reduction in the number of times (total number or number at biologically important time or location) individuals would be exposed to received levels of MFAS/HFAS, underwater detonations, or other activities expected to result in the take of marine mammals (this goal may contribute to a, above, or to reducing harassment takes only).

(d) A reduction in the intensity of exposures (either total number or

number at biologically important time or location) to received levels of MFAS/HFAS, underwater detonations, or other activities expected to result in the take of marine mammals (this goal may contribute to a, above, or to reducing the severity of harassment takes only).

(e) Avoidance or minimization of adverse effects to marine mammal habitat, paying special attention to the food base, activities that block or limit passage to or from biologically important areas, permanent destruction of habitat, or temporary destruction/disturbance of habitat during a biologically important time.

(f) For monitoring directly related to mitigation—an increase in the probability of detecting marine mammals, thus allowing for more effective implementation of the mitigation (shut-down zone, etc.).

Based on our evaluation of the Navy's proposed measures, as well as other measures considered by NMFS or recommended by the public, NMFS has determined preliminarily that the Navy's proposed mitigation measures (especially when the Adaptive Management (see Adaptive Management below) component is taken into consideration) are adequate means of effecting the least practicable adverse impacts on marine mammals species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, while also considering personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity. Further detail is included below.

The proposed rule comment period will afford the public an opportunity to submit recommendations, views and/or concerns regarding this action and the proposed mitigation measures. While NMFS has determined preliminarily that the Navy's proposed mitigation measures will effect the least practicable adverse impact on the affected species or stocks and their habitat, NMFS will consider all public comments to help inform our final decision. Consequently, the proposed mitigation measures may be refined, modified, removed, or added to prior to the issuance of the final rule based on public comments received, and where appropriate, further analysis of any additional mitigation measures.

NMFS believes that the range clearance procedures and shutdown/safety zone/exclusion zone measures the Navy has proposed will enable the Navy to avoid injuring marine mammals and will enable them to minimize the numbers of marine mammals exposed to

levels associated with TTS for the following reasons:

#### MFAS/HFAS

The Navy's standard protective measures indicate that they will ensure powerdown of MFAS/HFAS by 6-dB when a marine mammal is detected within 1,000 yd (914 m), powerdown of 4 more dB (or 10-dB total) when a marine mammal is detected within 500 yd (457 m), and will cease MFAS/HFAS transmissions when a marine mammal is detected within 200 yd (183 m).

*PTS/Injury*—NMFS believes that the proposed mitigation measures will allow the Navy to avoid exposing marine mammals to received levels of MFAS/HFAS sound that would result in injury for the following reasons:

- The estimated distance from the most powerful source at which cetaceans and all pinnipeds except harbor seals would receive levels at or above the threshold for PTS/injury/Level A Harassment is approximately 10 m (10.9 yd). The PTS threshold for harbor seals is lower, and the associated distance in which a harbor seal would experience PTS is approximately 50 m.
- NMFS believes that the probability that a marine mammal would approach within the above distances of the sonar dome (to the sides or below) without being seen by the watchstanders (who would then activate a shutdown if the animal was within 200 yd (183 m)) is very low, especially considering that animals would likely avoid approaching a source transmitting at that level at that distance.

- The model predicted that one harbor seal would be exposed to levels associated with injury, however, the model does not consider the mitigation or likely avoidance behaviors and NMFS believes that injury is unlikely when those factors are considered.

*TTS*—NMFS believes that the proposed mitigation measures will allow the Navy to minimize exposure of marine mammals to received levels of MFAS/HFAS sound associated with TTS for the following reasons:

- The estimated maximum distance from the most powerful source at which cetaceans and all pinnipeds except harbor seals would receive levels at or above the threshold for TTS is approximately 140 m from the source in most operating environments (except for harbor seals for which the distance is approximately 400 m).

- Based on the size of the animals, average group size, behavior, and average dive time, NMFS believes that the probability that Navy watchstanders will visually detect mysticetes or sperm whales, dolphins, social pelagic species

(pilot whales, melon-headed whales, etc.), and sea lions at some point within the 1,000 yd (914 km) safety zone before they are exposed to the TTS threshold levels is high, which means that the Navy would often be able to shutdown or powerdown to avoid exposing these species to sound levels associated with TTS.

- However, seals and more cryptic (animals that are difficult to detect and observe), deep-diving cetaceans (beaked whales and *Kogia* spp.) are less likely to be visually detected and could potentially be exposed to levels of MFAS/HFAS expected to cause TTS. Animals at depth in one location would not be expected to be continuously exposed to repeated sonar signals given the typical 5–10+ knot speed of Navy surface ships during ASW events. During a typical one-hour subsurface dive by a beaked whale, the ship will have moved over 5 to 10 nm from the original location. Additionally, the Navy's model does not predict TTS exposures of beaked whales or *Kogia*, although it does predict TTS exposure of 245 harbor seals.

- Additionally, the Navy's bow-riding mitigation exception for dolphins may sometimes result in dolphins being exposed to levels of MFAS/HFAS likely to result in TTS. However, there are combinations of factors that reduce the acoustic energy received by dolphins approaching ships to ride in bow waves. Dolphins riding a ship's bow wave are outside of the main beam of the MFAS vertical beam pattern. Source levels drop quickly outside of the main beam. Sidelobes of the radiate beam pattern that point to the surface are significantly lower in power. Together with spherical spreading losses, received levels in the ship's bow wave can be more than 42 dB less than typical source level (*i.e.*, 235 dB – 42 dB = 193 dB SPL). Finally, bow wave riding dolphins are frequently in and out of a bubble layer generated by the breaking bow waves. This bubble layer is an excellent scatterer of acoustic energy and can further reduce received energy.

#### Underwater Explosives

The Navy utilizes exclusion zones (wherein explosive detonation will not begin/continue if animals are within the zone) for explosive exercises. Table 3 identifies the various explosives, the estimated distance at which animals will receive levels associated with take (see Acoustic Take Criteria Section), and the exclusion zone associated with the explosive types.

*Mortality and Injury*—NMFS believes that the mitigation measures will allow the Navy to avoid exposing marine

mammals to underwater detonations that would result in injury or mortality for the following reasons:

- Surveillance for large charges (which includes aerial and passive acoustic detection methods, when available, to ensure clearance) begins two hours before the exercise and extends to 2 nm (3,704 m) from the source. Surveillance for all charges extends out 2–12 times the farthest distance from the source at which injury would be anticipated to occur (see Table 3).

- Animals would need to be less than 120–694 m (131–759 yd) (large explosives) or 21–112 m (23–123 yd) (smaller charges) from the source to be injured.

- Unlike for active sonar, an animal would need to be present at the exact moment of the explosion(s) (except for the short series of gunfire example in GUNEX) to be taken.

- The model predicted that 14 animals would be exposed to levels associated with injury, and 2 animals would be exposed to levels associated with death (though for the reasons explained above, NMFS does not believe they will be exposed to those levels).

- When the implementation of the exclusion zones (*i.e.*, the fact that the Navy will not start a detonation or will not continue to detonate explosives if an animal is detected within the exclusion zone) is considered in combination with the factors described in the above bullets, NMFS believes that the Navy's mitigation will prevent injury and mortality to marine mammals from explosives.

*TTS*—NMFS believes that the proposed mitigation measures will allow the Navy to minimize the exposure of marine mammals to underwater detonations that would result in TTS for the following reasons:

- About 200 animals annually were predicted to be exposed to explosive levels that would result in TTS. For the reasons explained above, NMFS believes that most modeled TTS takes can be avoided, especially dolphins, mysticetes and sperm whales, and social pelagic species.

- However, pinnipeds and more cryptic, deep-diving species (beaked whales and *Kogia* spp.) are less likely to be visually detected and could potentially be exposed to explosive levels expected to cause TTS. The model estimated that one beaked whale, zero *Kogia*, 44 northern fur seal, 29 northern elephant seal, 2 harbor seal, 1 California sea lion, and 3 Steller sea lions would be exposed to TTS levels.

- Additionally, for two of the exercise types (SINKEX and BOMBEX), the distance at which an animal would be expected to receive sound or pressure levels associated with TTS (182 dB SEL or 23 psi) is sometimes larger than the exclusion zone, which means that for those two exercise types, some individuals will likely be exposed to levels associated with TTS outside of the exclusion zone.

#### Research

The Navy provides a significant amount of funding and support to marine research. In the past five years the agency funded over \$100 million (\$26 million in FY08 alone) to universities, research institutions, Federal laboratories, private companies, and independent researchers around the world to study marine mammals. The U.S. Navy sponsors 70% of all U.S. research concerning the effects of human-generated sound on marine mammals and 50% of such research conducted worldwide. Major topics of Navy-supported research include the following:

- Better understanding of marine species distribution and important habitat areas.
- Developing methods to detect and monitor marine species before and during training.
- Understanding the effects of sound on marine mammals, sea turtles, fish, and birds, and
- Developing tools to model and estimate potential effects of sound.

This research is directly applicable to Fleet training activities, particularly with respect to the investigations of the potential effects of underwater noise sources on marine mammals and other protected species. Proposed training activities employ active sonar and underwater explosives, which introduce sound into the marine environment.

The Marine Life Sciences Division of the Office of Naval Research currently coordinates six programs that examine the marine environment and are devoted solely to studying the effects of noise and/or the implementation of technology tools that will assist the Navy in studying and tracking marine mammals. The six programs are as follows:

- Environmental Consequences of Underwater Sound.
- Non-Auditory Biological Effects of Sound on Marine Mammals.
- Effects of Sound on the Marine Environment.
- Sensors and Models for Marine Environmental Monitoring.
- Effects of Sound on Hearing of Marine Animals, and

- Passive Acoustic Detection, Classification, and Tracking of Marine Mammals.

The Navy has also developed the technical reports referenced within this document, which include the Marine Resource Assessments and the Navy OPAREA Density Estimates (NODE) reports. Furthermore, research cruises by the National Marine Fisheries Service (NMFS) and by academic institutions have received funding from the U.S. Navy.

The Navy has sponsored several workshops to evaluate the current state of knowledge and potential for future acoustic monitoring of marine mammals. The workshops brought together acoustic experts and marine biologists from the Navy and other research organizations to present data and information on current acoustic monitoring research efforts and to evaluate the potential for incorporating similar technology and methods on instrumented ranges. However, acoustic detection, identification, localization, and tracking of individual animals still requires a significant amount of research effort to be considered a reliable method for marine mammal monitoring. The Navy supports research efforts on acoustic monitoring and will continue to investigate the feasibility of passive acoustics as a potential mitigation and monitoring tool.

Overall, the Navy will continue to fund ongoing marine mammal research, and is planning to coordinate long term monitoring/studies of marine mammals on various established ranges and operating areas. The Navy will continue to research and contribute to university/external research to improve the state of the science regarding marine species biology and acoustic effects. These efforts include mitigation and monitoring programs; data sharing with NMFS and via the literature for research and development efforts; and future research as described previously.

#### Memorandum of Agreement (MOA) for Navy Assistance With Stranding Investigations

The Navy and NMFS are currently developing a nationwide MOA (or other mechanism consistent with Federal fiscal law requirements (and all other applicable laws)), that will establish a framework whereby the Navy can (and NMFS will provide examples of how best to) assist NMFS with stranding investigations in certain circumstances.

#### Long-Term Prospective Study

Apart from this proposed rule, NMFS, with input and assistance from the Navy and several other agencies and entities,

will perform a longitudinal observational study of marine mammal strandings to systematically observe for and record the types of pathologies and diseases and investigate the relationship with potential causal factors (e.g., active sonar, seismic, weather). The study will not be a true "cohort" study, because we will be unable to quantify or estimate specific active sonar or other sound exposures for individual animals that strand. However, a cross-sectional or correlational analyses, a method of descriptive rather than analytical epidemiology, can be conducted to compare population characteristics, e.g., frequency of strandings and types of specific pathologies between general periods of various anthropogenic activities and non-activities within a prescribed geographic space. In the long-term study, we will more fully and consistently collect and analyze data on the demographics of strandings in specific locations and consider anthropogenic activities and physical, chemical, and biological environmental parameters. This approach in conjunction with true cohort studies (tagging animals, measuring received sounds, and evaluating behavior or injuries) in the presence of activities and non-activities will provide critical information needed to further define the impacts of MTEs and other anthropogenic and non-anthropogenic stressors. In coordination with the Navy and other Federal and non-Federal partners, the comparative study will be designed and conducted for specific sites during intervals of the presence of anthropogenic activities such as active sonar transmission or other sound exposures and absence to evaluate demographics of morbidity and mortality, lesions found, and cause of death or stranding. Additional data that will be collected and analyzed in an effort to control potential confounding factors include variables such as average sea temperature (or just season), meteorological or other environmental variables (e.g., seismic activity), fishing activities, etc. All efforts will be made to include appropriate controls (i.e., no active sonar or no seismic); environmental variables may complicate the interpretation of "control" measurements. The Navy and NMFS along with other partners are evaluating mechanisms for funding this study.

**Monitoring**

In order to issue an ITA for an activity, Section 101(a)(5)(A) of the MMPA states that NMFS must set forth "requirements pertaining to the monitoring and reporting of such taking". The MMPA implementing

regulations at 50 CFR 216.104(a)(13) indicate that requests for LOAs must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of taking or impacts on populations of marine mammals that are expected to be present.

Monitoring measures prescribed by NMFS should accomplish one or more of the following general goals:

(a) An increase in our understanding of how many marine mammals are likely to be exposed to levels of MFAS/HFAS (or explosives or other stimuli) that we associate with specific adverse effects, such as behavioral harassment, TTS, or PTS.

(b) An increase in our understanding of how individual marine mammals respond (behaviorally or physiologically) to MFAS/HFAS (at specific received levels), explosives, or other stimuli expected to result in take.

(c) An increase in our understanding of how anticipated takes of individuals (in different ways and to varying degrees) may impact the population, species, or stock (specifically through effects on annual rates of recruitment or survival).

(d) An increased knowledge of the affected species.

(e) An increase in our understanding of the effectiveness of certain mitigation and monitoring measures.

(f) A better understanding and record of the manner in which the authorized entity complies with the incidental take authorization.

(g) An increase in the probability of detecting marine mammals, both within the safety zone (thus allowing for more effective implementation of the mitigation) and in general to better achieve the above goals.

#### Proposed Monitoring Plan for the NWTRC

The Navy has submitted a draft Monitoring Plan for the NWTRC which may be viewed at NMFS' Web site: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications>. NMFS and the Navy have worked together on the development of this plan in the months preceding the publication of this proposed rule; however, we are still refining the plan and anticipate that it will contain more details by the time NMFS issues the final rule.

Additionally, the plan may be modified or supplemented based on comments or new information received from the public during the public comment period. A summary of the primary components of the plan follows.

The draft Monitoring Plan for NWTRC has been designed as a collection of focused "studies" (described fully in the NWTRC draft Monitoring Plan) to gather data that will allow the Navy to address the following questions:

(a) Are marine mammals exposed to MFAS/HFAS, especially at levels associated with adverse effects (i.e., based on NMFS' criteria for behavioral harassment, TTS, or PTS)? If so, at what levels are they exposed?

(b) If marine mammals are exposed to MFAS/HFAS in the NWTRC Range Complex, do they redistribute geographically as a result of continued exposure? If so, how long does the redistribution last?

(c) If marine mammals are exposed to MFAS/HFAS, what are their behavioral responses to various levels?

(d) What are the behavioral responses of marine mammals and that are exposed to explosives at specific levels?

(e) Is the Navy's suite of mitigation measures for MFAS/HFAS (e.g., measures agreed to by the Navy through permitting) effective at preventing TTS, injury, and mortality of marine mammals?

Data gathered in these studies will be collected by qualified, professional marine mammal biologists that are experts in their field. They will use a combination of the following methods to collect data:

- Conducted vessel and aerial surveys.
- Passive acoustics.
- Marine mammal observers on Navy ships.
- Tagging (satellite and acoustic).

In the three proposed study designs (all of which cover multiple years), the above methods will be used separately or in combination to monitor marine mammals in different combinations before, during, and after training activities utilizing MFAS/HFAS.

This monitoring plan has been designed to gather data on all species of marine mammals that are observed in the NWTRC, however, where appropriate priority will be given to beaked whales, ESA-listed species, killer whales, and harbor porpoises. The Plan recognizes that deep-diving and cryptic species of marine mammals such as beaked whales have a low probability of detection (Barlow and Gisiner, 2006). Therefore, methods will be utilized to attempt to address this issue (e.g., passive acoustic monitoring).

In addition to the Monitoring Plan for NWTRC, by the end of 2009, the Navy will have completed an Integrated Comprehensive Monitoring Program (ICMP) Plan. The ICMP will provide the overarching structure and coordination

that will, over time, compile data from both range specific monitoring plans (such as AFAST, the Hawaii Range Complex, and the Southern California Range Complex) as well as Navy funded research and development (R&D) studies. The primary objectives of the ICMP are to:

- Monitor Navy training events, particularly those involving MFAS and underwater detonations, for compliance with the terms and conditions of ESA Section 7 consultations or MMPA authorizations;
- Collect data to support estimating the number of individuals exposed to sound levels above current acoustic thresholds;
- Assess the efficacy of the Navy's current marine species mitigation;
- Add to the knowledge base on potential behavioral and physiological effects to marine species from mid-frequency active sonar and underwater detonations; and,
- Assess the practicality and effectiveness of a number of mitigation tools and techniques (some not yet in use).

More information about the ICMP may be found in the draft Monitoring Plan for NWTRC.

#### Monitoring Workshop

The Navy, with guidance and support from NMFS, will convene a Monitoring Workshop, including marine mammal and acoustic experts as well as other interested parties, in 2011. The Monitoring Workshop participants will review the monitoring results from the previous two years of monitoring pursuant to the NWTRC rule as well as monitoring results from other Navy rules and LOAs (e.g., the Southern California Range Complex (SOCAL), Hawaii Range Complex (HRC), etc.). The Monitoring Workshop participants would provide their individual

recommendations to the Navy and NMFS on the monitoring plan(s) after also considering the current science (including Navy research and development) and working within the framework of available resources and feasibility of implementation. NMFS and the Navy would then analyze the input from the Monitoring Workshop participants and determine the best way forward from a national perspective. Subsequent to the Monitoring Workshop, modifications would be applied to monitoring plans as appropriate.

#### Adaptive Management

The final regulations governing the take of marine mammals incidental to Navy training exercises in the NWTRC

will contain an adaptive management component. Our understanding of the effects of MFAS/HFAS and explosives on marine mammals is still in its relative infancy, and yet the science in this field is evolving fairly quickly. These circumstances make the inclusion of an adaptive management component both valuable and necessary within the context of 5-year regulations for activities that have been associated with marine mammal mortality in certain circumstances and locations (though not the NWTRC in the Navy's over 60 years of use of the area for testing and training). The use of adaptive management will allow NMFS to consider new data from different sources to determine (in coordination with the Navy) on an annual basis if mitigation or monitoring measures should be modified or added (or deleted) if new data suggests that such modifications are appropriate (or are not appropriate) for subsequent annual LOAs.

Following are some of the possible sources of applicable data:

- Results from the Navy's monitoring from the previous year (either from NWTRC or other locations).

- Findings of the Workshop that the Navy will convene in 2011 to analyze monitoring results to date, review current science, and recommend modifications, as appropriate to the monitoring protocols to increase monitoring effectiveness.

- Compiled results of Navy funded research and development (R&D) studies (presented pursuant to the ICMP, which is discussed elsewhere in this document).

- Results from specific stranding investigations (either from NWTRC or other locations, and involving coincident MFAS/HFAS of explosives training or not involving coincident use).

- Results from the Long Term Prospective Study described above.

- Results from general marine mammal and sound research (funded by the Navy (described above) or otherwise).

- Any information which reveals that marine mammals may have been taken in a manner, extent or number not authorized by these regulations or subsequent Letters of Authorization.

Mitigation measures could be modified or added (or deleted) if new data suggests that such modifications would have (or do not have) a reasonable likelihood of accomplishing the goals of mitigation laid out in this proposed rule and if the measures are practicable. NMFS will also coordinate with the Navy to modify or

add to (or delete) the existing monitoring requirements if the new data suggest that the addition of (or deletion of) a particular measure would more effectively accomplish the goals of monitoring laid out in this proposed rule. The reporting requirements associated with this proposed rule are designed to provide NMFS with monitoring data from the previous year to allow NMFS to consider the data and issue annual LOAs. NMFS and the Navy will meet annually, prior to LOA issuance, to discuss the monitoring reports, Navy R&D developments, and current science and whether mitigation or monitoring modifications are appropriate.

#### Reporting

In order to issue an ITA for an activity, Section 101(a)(5)(A) of the MMPA states that NMFS must set forth “requirements pertaining to the monitoring and reporting of such taking”. Effective reporting is critical both to compliance as well as ensuring that the most value is obtained from the required monitoring. Some of the reporting requirements are still in development and the final rule may contain additional details not contained in the proposed rule. Additionally, proposed reporting requirements may be modified, removed, or added based on information or comments received during the public comment period. Currently, there are several different reporting requirements pursuant to these proposed regulations:

#### General Notification of Injured or Dead Marine Mammals

Navy personnel will ensure that NMFS is notified immediately (see Communication Plan) or as soon as clearance procedures allow) if an injured, stranded, or dead marine mammal is found during or shortly after, and in the vicinity of, any Navy training exercise utilizing MFAS, HFAS, or underwater explosive detonations. The Navy will provide NMFS with species or description of the animal(s), the condition of the animal(s) (including carcass condition if the animal is dead), location, time of first discovery, observed behaviors (if alive), and photo or video (if available).

In the event that an injured, stranded, or dead marine mammal is found by the Navy that is not in the vicinity of, or during or shortly after MFAS, HFAS, or underwater explosive detonations, the Navy will report the same information as listed above as soon as operationally feasible and clearance procedures allow.

#### General Notification of a Ship Strike

In the event of a ship strike by any Navy vessel, at any time or place, the Navy shall do the following:

- Immediately report to NMFS the species identification (if known), location (lat/long) of the animal (or the strike if the animal has disappeared), and whether the animal is alive or dead (or unknown).
- Report to NMFS as soon as operationally feasible the size and length of animal, an estimate of the injury status (ex., dead, injured but alive, injured and moving, unknown, etc.), vessel class/type and operational status.
- Report to NMFS the vessel length, speed, and heading as soon as feasible.
- Provide NMFS a photo or video, if equipment is available.

#### Event Communication Plan

The Navy shall develop a communication plan that will include all of the communication protocols (phone trees, etc.) and associated contact information required for NMFS and the Navy to carry out the necessary expeditious communication required in the event of a stranding or ship strike, including as described in the proposed notification measures above.

#### Annual NWTRC Report

The Navy will submit an Annual NWTRC Report on October 1 of every year (covering data gathered through August 1). This report shall contain the subsections and information indicated below.

#### ASW Summary

This section shall include the following information as summarized from non-major training exercises (unit-level exercises, such as TRACKEXs and MIW):

- (a) *Total Hours*—Total annual hours of each type of sonar source (along with explanation of how hours are calculated for sources typically quantified in alternate way (buoys, torpedoes, etc.))
- (b) *Cumulative Impacts*—To the extent practicable, the Navy, in coordination with NMFS, shall develop and implement a method of annually reporting non-major training (*i.e.*, ULT) utilizing hull-mounted sonar. The report shall present an annual (and seasonal, where practicable) depiction of non-major training exercises geographically across NWTRC. The Navy shall include (in the NWTRC annual report) a brief annual progress update on the status of the development of an effective and unclassified method to report this information until an agreed-upon (with

NMFS) method has been developed and implemented.

#### Sinking Exercises (SINKEXs)

- This section shall include the following information for each SINKEX completed that year:
- (a) *Exercise info*:
    - (i) Location.
    - (ii) Date and time exercise began and ended.
    - (iii) Total hours of observation by watchstanders before, during, and after exercise.
    - (iv) Total number and types of rounds expended/explosives detonated.
    - (v) Number and types of passive acoustic sources used in exercise.
    - (vi) Total hours of passive acoustic search time.
    - (vii) Number and types of vessels, aircraft, etc., participating in exercise.
    - (viii) Wave height in feet (high, low and average during exercise).
    - (ix) Narrative description of sensors and platforms utilized for marine mammal detection and timeline illustrating how marine mammal detection was conducted.
    - (b) *Individual marine mammal observation during SINKEX (by Navy lookouts) info*:
      - (i) Location of sighting.
      - (ii) Species (if not possible—indication of whale/dolphin/pinniped).
      - (iii) Number of individuals.
      - (iv) Calves observed (y/n).
      - (v) Initial detection sensor.
      - (vi) Length of time observers maintained visual contact with marine mammal.
      - (vii) Wave height.
      - (viii) Visibility.
      - (ix) Whether sighting was before, during, or after detonations/exercise, and how many minutes before or after.
      - (x) Distance of marine mammal from actual detonations (or target spot if not yet detonated)—use four categories to define distance: (1) The modeled injury threshold radius for the largest explosive used in that exercise type in that OPAREA (694 m for SINKEX in NWTRC); (2) the required exclusion zone (1 nm for SINKEX in NWTRC); (3) the required observation distance (if different than the exclusion zone (2 nm for SINKEX in NWTRC); and (4) greater than the required observed distance. For example, in this case, the observer would indicate if < m, from 694 m–1 nm, from 1 nm–2 nm, and > 2 nm.
      - (xi) *Observed behavior*—Watchstanders will report, in plain language and without trying to categorize in any way, the observed behavior of the animals (such as animal closing to bow ride, paralleling course/speed, floating on surface and not

swimming etc.), including speed and direction.

(xii) *Resulting mitigation implementation*—Indicate whether explosive detonations were delayed, ceased, modified, or not modified due to marine mammal presence and for how long.

(xiii) If observation occurs while explosives are detonating in the water, indicate munitions type in use at time of marine mammal detection.

#### Improved Extended Echo-Ranging System (IEER) Summary

This section shall include an annual summary of the following IEER information:

- (a) Total number of IEER events conducted in NWTRC.
- (b) Total expended/detonated rounds (buoys).
- (c) Total number of self-scuttled IEER rounds.

#### Explosives Summary

The Navy is in the process of improving the methods used to track explosive use to provide increased granularity. To the extent practicable, the Navy will provide the information described below for all of their explosive exercises. Until the Navy is able to report in full the information below, they will provide an annual update on the Navy’s explosive tracking methods, including improvements from the previous year.

- (a) Total annual number of each type of explosive exercise (of those identified as part of the “specified activity” in this final rule) conducted in NWTRC.
- (b) Total annual expended/detonated rounds (missiles, bombs, etc.) for each explosive type.

#### NWTRC 5-Yr Comprehensive Report

The Navy shall submit to NMFS a draft report that analyzes and summarizes all of the multi-year marine mammal information gathered during ASW and explosive exercises for which annual reports are required (Annual NWTRC Exercise Reports and NWTRC Monitoring Plan Reports). This report will be submitted at the end of the fourth year of the rule (November 2013), covering activities that have occurred through June 1, 2013.

#### Comprehensive National ASW Report

By June, 2014, the Navy shall submit a draft National Report that analyzes, compares, and summarizes the active sonar data gathered (through January 1, 2014) from the watchstanders and pursuant to the implementation of the Monitoring Plans for the Northwest Training Range Complex, the Southern

California Range Complex, the Atlantic Fleet Active Sonar Training, the Hawaii Range Complex, the Marianas Islands Range Complex, and the Gulf of Alaska.

#### Estimated Take of Marine Mammals

As mentioned previously, one of the main purposes of NMFS’ effects assessments is to identify the permissible methods of taking, meaning: The nature of the take (*e.g.*, resulting from anthropogenic noise vs. from ship strike, etc.); the regulatory level of take (*i.e.*, mortality vs. Level A or Level B harassment) and the amount of take. In the Potential Effects of Exposure of Marine Mammal to MFAS/HFAS and Underwater Detonations section, NMFS identified the lethal responses, physical trauma, sensory impairment (permanent and temporary threshold shifts and acoustic masking), physiological responses (particular stress responses), and behavioral responses that could potentially result from exposure to MFAS/HFAS or underwater explosive detonations. In this section, we will relate the potential effects to marine mammals from MFAS/HFAS and underwater detonation of explosives to the MMPA statutory definitions of Level A and Level B Harassment and attempt to quantify the effects that might occur from the specific training activities that the Navy is proposing in the NWTRC.

As mentioned previously, behavioral responses are context-dependent, complex, and influenced to varying degrees by a number of factors other than just received level. For example, an animal may respond differently to a sound emanating from a ship that is moving towards the animal than it would to an identical received level coming from a vessel that is moving away, or to a ship traveling at a different speed or at a different distance from the animal. At greater distances, though, the nature of vessel movements could also potentially not have any effect on the animal’s response to the sound. In any case, a full description of the suite of factors that elicited a behavioral response would sometimes include a mention of the vicinity, speed and movement of the vessel, or other factors. So, while sound sources and the received levels are the primary focus of the analysis and those that are laid out quantitatively in the regulatory text, it is with the understanding that other factors related to the training are sometimes contributing to the behavioral responses of marine mammals, although they cannot be quantified.

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#### Definition of Harassment

As mentioned previously, with respect to military readiness activities, Section 3(18)(B) of the MMPA defines “harassment” as: (i) Any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild [Level A Harassment]; or (ii) any act that disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered [Level B Harassment].

#### Level B Harassment

Of the potential effects that were described in the Potential Effects of Exposure of Marine Mammal to MFAS/HFAS and Underwater Detonations Section, the following are the types of effects that fall into the Level B Harassment category:

*Behavioral Harassment*—Behavioral disturbance that rises to the level described in the definition above, when resulting from exposures to MFAS/HFAS or underwater detonations (or another stressor), is considered Level B Harassment. Louder sounds (when other factors are not considered) are generally expected to elicit a stronger response. Some of the lower level physiological stress responses discussed in the Potential Effects of Exposure of Marine Mammal to MFAS/HFAS and Underwater Detonations Section: Stress Section will also likely co-occur with the predicted harassments, although these responses are more difficult to detect and fewer data exist relating these responses to specific received levels of sound. When Level B Harassment is predicted based on estimated behavioral responses, those takes may have a stress-related physiological component as well.

In the effects section above, we described the Southall *et al.*, (2007) severity scaling system and listed some examples of the three broad categories of behaviors: (0–3: Minor and/or brief behaviors); 4–6 (Behaviors with higher potential to affect foraging, reproduction, or survival); 7–9 (Behaviors considered likely to affect the aforementioned vital rates). Generally speaking, MMPA Level B Harassment, as defined in this document, would include the behaviors described in the 7–9 category, and a subset, dependent on context and other considerations, of the behaviors described in the 4–6 categories.

Behavioral harassment would not typically include behaviors ranked 0–3 in Southall *et al.* (2007).

**Acoustic Masking and Communication Impairment**—The severity or importance of an acoustic masking event can vary based on the length of time that the masking occurs, the frequency of the masking signal (which determines which sounds that are masked, which may be of varying importance to the animal), and other factors. Some acoustic masking would be considered Level B Harassment, if it can disrupt natural behavioral patterns by interrupting or limiting the marine mammal's receipt or transmittal of important information or environmental cues.

**TTS**—As discussed previously, TTS can disrupt behavioral patterns by inhibiting an animal's ability to communicate with conspecifics and interpret other environmental cues important for predator avoidance and prey capture. However, depending on the degree (elevation of threshold in dB), duration (*i.e.*, recovery time), and frequency range of TTS, and the context in which it is experienced, TTS can have effects on marine mammals ranging from discountable to serious (similar to those discussed in auditory masking). For example, a marine mammal may be able to readily compensate for a brief, relatively small amount of TTS in a non-critical frequency range that takes place during a time when the animal is traveling through the open ocean, where ambient noise is lower and there are not as many competing sounds present. Alternatively, a larger amount and longer duration of TTS sustained during a time when communication is critical for successful mother/calf interactions could have more serious impacts if it were in the same frequency band as the necessary vocalizations and of a severity that it impeded communication.

The following physiological mechanisms are thought to play a role in inducing auditory fatigue: Effects to sensory hair cells in the inner ear that reduce their sensitivity, modification of the chemical environment within the sensory cells, residual muscular activity in the middle ear, displacement of certain inner ear membranes, increased blood flow, and post-stimulatory reduction in both efferent and sensory neural output. Ward (1997) suggested that when these effects result in TTS rather than PTS, they are within the normal bounds of physiological variability and tolerance and do not represent a physical injury. Additionally, Southall *et al.* (2007) indicate that although PTS is a tissue

injury, TTS is not, because the reduced hearing sensitivity following exposure to intense sound results primarily from fatigue, not loss, of cochlear hair cells and supporting structures and is reversible. Accordingly, NMFS classifies TTS (when resulting from exposure to either MFAS/HFAS or underwater detonations) as Level B Harassment, not Level A Harassment (injury).

#### Level A Harassment

Of the potential effects that were described in the Potential Effects of Exposure of Marine Mammals to MFAS/HFAS and Underwater Detonations Section, following are the types of effects that fall into the Level A Harassment category:

**PTS**—PTS (resulting either from exposure to MFAS/HFAS or explosive detonations) is irreversible and considered an injury. PTS results from exposure to intense sounds that cause a permanent loss of inner or outer cochlear hair cells or exceed the elastic limits of certain tissues and membranes in the middle and inner ears and result in changes in the chemical composition of the inner ear fluids. Although PTS is considered an injury, the effects of PTS on the fitness of an individual can vary based on the degree of TTS and the frequency band that it is in.

**Tissue Damage due to Acoustically Mediated Bubble Growth**—A few theories suggest ways in which gas bubbles become enlarged through exposure to intense sounds (MFAS/HFAS) to the point where tissue damage results. In rectified diffusion, exposure to a sound field would cause bubbles to increase in size. A short duration of active sonar pings (such as that which an animal exposed to MFAS would be most likely to encounter) would not likely be long enough to drive bubble growth to any substantial size. Alternately, bubbles could be destabilized by high-level sound exposures such that bubble growth then occurs through static diffusion of gas out of the tissues. The degree of supersaturation and exposure levels observed to cause microbubble destabilization are unlikely to occur, either alone or in concert because of how close an animal would need to be to the sound source to be exposed to high enough levels, especially considering the likely avoidance of the sound source and the required mitigation. Still, possible tissue damage from either of these processes would be considered an injury.

**Tissue Damage due to Behaviorally Mediated Bubble Growth**—Several authors suggest mechanisms in which marine mammals could behaviorally

respond to exposure to MFAS/HFAS by altering their dive patterns in a manner (unusually rapid ascent, unusually long series of surface dives, *etc.*) that might result in unusual bubble formation or growth ultimately resulting in tissue damage (emboli, *etc.*). In this scenario, the rate of ascent would need to be sufficiently rapid to compromise behavioral or physiological protections against nitrogen bubble formation. There is considerable disagreement among scientists as to the likelihood of this phenomenon (Piantadosi and Thalmann, 2004; Evans and Miller, 2003). Although it has been argued that the tissue effects observed from recent beaked whale strandings are consistent with gas emboli and bubble-induced tissue separations (Jepson *et al.*, 2003; Fernandez *et al.*, 2005), nitrogen bubble formation as the cause of the traumas has not been verified. If tissue damage does occur by this phenomenon, it would be considered an injury.

**Physical Disruption of Tissues Resulting from Explosive Shock Wave**—Physical damage of tissues resulting from a shock wave (from an explosive detonation) is classified as an injury. Blast effects are greatest at the gas-liquid interface (Landsberg, 2000) and gas-containing organs, particularly the lungs and gastrointestinal tract, are especially susceptible (Goertner, 1982; Hill 1978; Yelverton *et al.*, 1973). Nasal sacs, larynx, pharynx, trachea, and lungs may be damaged by compression/expansion caused by the oscillations of the blast gas bubble (Reidenberg and Laitman, 2003). Severe damage (from the shock wave) to the ears can include tympanic membrane rupture, fracture of the ossicles, damage to the cochlea, hemorrhage, and cerebrospinal fluid leakage into the middle ear.

**Vessel Strike, Ordnance Strike, Entanglement**—Although not anticipated (or authorized) to occur, vessel strike, ordnance strike, or entanglement in materials associated with the specified action are considered Level A Harassment or mortality.

#### Acoustic Take Criteria

For the purposes of an MMPA incidental take authorization, three types of take are identified: Level B Harassment; Level A Harassment; and mortality (or serious injury leading to mortality). The categories of marine mammal responses (physiological and behavioral) that fall into the two harassment categories were described in the previous section.

Because the physiological and behavioral responses of the majority of the marine mammals exposed to MFAS/HFAS and underwater detonations

cannot be detected or measured (not all responses visible external to animal, portion of exposed animals underwater (so not visible), many animals located many miles from observers and covering very large area, *etc.*) and because NMFS must authorize take prior to the impacts to marine mammals, a method is needed to estimate the number of individuals that will be taken, pursuant to the MMPA, based on the proposed action. To this end, NMFS developed acoustic criteria that estimate at what received level (when exposed to MFAS/HFAS or explosive detonations) Level B Harassment, Level A Harassment, and mortality (for explosives) of marine mammals would occur. The acoustic criteria for MFAS/HFAS and Underwater Detonations (IEER) are discussed below.

#### MFAS/HFAS Acoustic Criteria

Because relatively few applicable data exist to support acoustic criteria specifically for HFAS and because such a small percentage of the active sonar pings that marine mammals will likely be exposed to incidental to this activity come from a HFAS source (the vast majority come from MFAS sources), NMFS will apply the criteria developed for the MFAS to the HFAS as well.

NMFS utilizes three acoustic criteria for MFAS/HFAS: PTS (injury)—Level A Harassment, TTS (Level B Harassment), and behavioral harassment (Level B Harassment). Because the TTS and PTS criteria are derived similarly and the PTS criteria was extrapolated from the TTS data, the TTS and PTS acoustic criteria will be presented first, before the behavioral criteria.

For more information regarding these criteria, please see the Navy's DEIS for NWTRC.

#### Level B Harassment Threshold (TTS)

As mentioned above, behavioral disturbance, acoustic masking, and TTS are all considered Level B Harassment. Marine mammals would usually be behaviorally disturbed at lower received levels than those at which they would likely sustain TTS, so the levels at which behavioral disturbance are likely to occur is considered the onset of Level B Harassment. The behavioral responses of marine mammals to sound are variable, context specific, and, therefore, difficult to quantify (*see Risk Function section, below*). Alternately, TTS is a physiological effect that has been studied and quantified in laboratory conditions. Because data exist to support an estimate of at what received levels marine mammals will incur TTS, NMFS uses an acoustic criteria to estimate the number of marine

mammals that might sustain TTS. TTS is a subset of Level B Harassment (along with sub-TTS behavioral harassment) and we are not specifically required to estimate those numbers; however, the more specifically we can estimate the affected marine mammal responses, the better the analysis.

A number of investigators have measured TTS in marine mammals. These studies measured hearing thresholds in trained marine mammals before and after exposure to intense sounds. The existing cetacean TTS data are summarized in the following bullets.

- Schlundt *et al.* (2007) reported the results of TTS experiments conducted with 5 bottlenose dolphins and 2 belugas exposed to 1-second tones. This paper also includes a reanalysis of preliminary TTS data released in a technical report by Ridgway *et al.* (1997). At frequencies of 3, 10, and 20 kHz, sound pressure levels (SPLs) necessary to induce measurable amounts (6 dB or more) of TTS were between 192 and 201 dB re 1  $\mu$ Pa (EL = 192 to 201 dB re 1  $\mu$ Pa<sup>2</sup>-s). The mean exposure SPL and EL for onset-TTS were 195 dB re 1  $\mu$ Pa and 195 dB re 1  $\mu$ Pa<sup>2</sup>-s, respectively.

- Finneran *et al.* (2001, 2003, 2005) described TTS experiments conducted with bottlenose dolphins exposed to 3-kHz tones with durations of 1, 2, 4, and 8 seconds. Small amounts of TTS (3 to 6 dB) were observed in one dolphin after exposure to ELs between 190 and 204 dB re 1  $\mu$ Pa<sup>2</sup>-s. These results were consistent with the data of Schlundt *et al.* (2000) and showed that the Schlundt *et al.* (2000) data were not significantly affected by the masking sound used.

These results also confirmed that, for tones with different durations, the amount of TTS is best correlated with the exposure EL rather than the exposure SPL.

- Nachtigall *et al.* (2003) measured TTS in a bottlenose dolphin exposed to octave-band sound centered at 7.5 kHz. Nachtigall *et al.* (2003a) reported TTSs of about 11 dB measured 10 to 15 minutes after exposure to 30 to 50 minutes of sound with SPL 179 dB re 1  $\mu$ Pa (EL about 213 dB re  $\mu$ Pa<sup>2</sup>-s). No TTS was observed after exposure to the same sound at 165 and 171 dB re 1  $\mu$ Pa. Nachtigall *et al.* (2004) reported TTSs of around 4 to 8 dB 5 minutes after exposure to 30 to 50 minutes of sound with SPL 160 dB re 1  $\mu$ Pa (EL about 193 to 195 dB re 1  $\mu$ Pa<sup>2</sup>-s). The difference in results was attributed to faster post-exposure threshold measurement—TTS may have recovered before being detected by Nachtigall *et al.* (2003). These studies showed that, for long-duration exposures, lower sound

pressures are required to induce TTS than are required for short-duration tones.

- Finneran *et al.* (2000, 2002) conducted TTS experiments with dolphins and belugas exposed to impulsive sounds similar to those produced by distant underwater explosions and seismic waterguns. These studies showed that, for very short-duration impulsive sounds, higher sound pressures were required to induce TTS than for longer-duration tones.

- Finneran *et al.* (2007) conducted TTS experiments with bottlenose dolphins exposed to intense 20 kHz fatiguing tone. Behavioral and auditory evoked potentials (using sinusoidal amplitude modulated tones creating auditory steady state response [AASRR]) were used to measure TTS. The fatiguing tone was either 16 (mean = 193 re 1  $\mu$ Pa, SD = 0.8) or 64 seconds (185–186 re 1  $\mu$ Pa) in duration. TTS ranged from 19–33 dB from behavioral measurements and 40–45 dB from ASSR measurements.

- Kastak *et al.* (1999a, 2005) conducted TTS experiments with three species of pinnipeds, California sea lion, northern elephant seal and a Pacific harbor seal, exposed to continuous underwater sounds at levels of 80 and 95 dB sensation level at 2.5 and 3.5 kHz for up to 50 minutes. Mean TTS shifts of up to 12.2 dB occurred with the harbor seals showing the largest shift of 28.1 dB. Increasing the sound duration had a greater effect on TTS than increasing the sound level from 80 to 95 dB.

Some of the more important data obtained from these studies are onset-TTS levels (exposure levels sufficient to cause a just-measurable amount of TTS) often defined as 6 dB of TTS (for example, Schlundt *et al.*, 2000) and the fact that energy metrics (sound exposure levels (SEL), which include a duration component) better predict when an animal will sustain TTS than pressure (SPL) alone. NMFS' TTS criteria (which indicate the received level at which onset TTS (>6dB) is induced) for MFAS/HFAS are as follows:

- *Cetaceans*—195 dB re 1  $\mu$ Pa<sup>2</sup>-s (based on mid-frequency cetaceans—no published data exist on auditory effects of noise in low- or high-frequency cetaceans (Southall *et al.*, (2007)).
- *Harbor Seals (and closely related species)*—183 dB re 1  $\mu$ Pa<sup>2</sup>-s.
- *Northern Elephant Seals (and closely related species)*—204 dB re 1  $\mu$ Pa<sup>2</sup>-s.
- *California Sea Lions (and closely related species)*—206 dB re 1  $\mu$ Pa<sup>2</sup>-s.

A detailed description of how TTS criteria were derived from the results of the above studies may be found in Chapter 3 of Southall *et al.*, (2007), as well as the Navy's NWTRC LOA application. Because they are both otariids, the California sea lion criterion is used to estimate take of northern fur seals for this authorization.

#### Level A Harassment Threshold (PTS)

For acoustic effects, because the tissues of the ear appear to be the most susceptible to the physiological effects of sound, and because threshold shifts tend to occur at lower exposures than other more serious auditory effects, NMFS has determined that PTS is the best indicator for the smallest degree of injury that can be measured. Therefore, the acoustic exposure associated with onset-PTS is used to define the lower limit of the Level A harassment.

PTS data do not currently exist for marine mammals and are unlikely to be obtained due to ethical concerns. However, PTS levels for these animals may be estimated using TTS data from marine mammals and relationships between TTS and PTS that have been discovered through study of terrestrial mammals. NMFS uses the following acoustic criteria for injury:

- Cetaceans—215 dB re 1  $\mu\text{Pa}^2\text{-s}$  (based on mid-frequency cetaceans—no published data exist on auditory effects of noise in low-or high-frequency cetaceans (Southall *et al.*, (2007)).
- Harbor Seals (and closely related species)—203 dB re 1  $\mu\text{Pa}^2\text{-s}$ .
- Northern Elephant Seals (and closely related species)—224 dB re 1  $\mu\text{Pa}^2\text{-s}$ .
- California Sea Lions (and closely related species)—226 dB re 1  $\mu\text{Pa}^2\text{-s}$ .

These criteria are based on a 20 dB increase in SEL over that required for onset-TTS. Extrapolations from terrestrial mammal data indicate that TTS occurs at 40 dB or more of TS, and that TS growth occurs at a rate of approximately 1.6 dB TS per dB increase in EL. There is a 34-dB TS difference between onset-TTS (6 dB) and onset-PTS (40 dB). Therefore, an animal would require approximately 20dB of additional exposure (34 dB divided by 1.6 dB) above onset-TTS to reach PTS. A detailed description of how TTS criteria were derived from the results of the above studies may be found in Chapter 3 of Southall *et al.* (2007), as well as the Navy's NWTRC LOA application. Southall *et al.* (2007) recommend a precautionary dual criteria for TTS (230 dB re 1  $\mu\text{Pa}$  (SPL peak pressure) in addition to 215 dB re 1  $\mu\text{Pa}^2\text{-s}$  (SEL)) to account for the potentially damaging transients

embedded within non-pulse exposures. However, in the case of MFAS/HFAS, the distance at which an animal would receive 215 dB (SEL) is farther from the source (*i.e.*, more conservative) than the distance at which they would receive 230 dB (SPL peak pressure) and therefore, it is not necessary to consider 230 dB peak.

We note here that behaviorally mediated injuries (such as those that have been hypothesized as the cause of some beaked whale strandings) could potentially occur in response to received levels lower than those believed to directly result in tissue damage. As mentioned previously, data to support a quantitative estimate of these potential effects (for which the exact mechanism is not known and in which factors other than received level may play a significant role) do not exist. However, based on the number of years (more than 40) and number of hours of MFAS per year that the U.S. (and other countries) has operated compared to the reported (and verified) cases of associated marine mammal strandings, NMFS believes that the probability of these types of injuries is very low (especially in the NWTRC, in which no major exercises using multiple surface vessel sources will occur and in which the surface vessel sonar use is less than 110 hours annually).

#### Level B Harassment Risk Function (Behavioral Harassment)

In 2006, NMFS issued the first MMPA authorization to allow the take of marine mammals incidental to MFAS (to the Navy for the Rim of the Pacific Exercises (RIMPAC)). For that authorization, NMFS used 173 dB SEL as the criterion for the onset of behavioral harassment (Level B Harassment). This type of single number criterion is referred to as a step function, in which (in this example) all animals estimated to be exposed to received levels above 173 dB SEL would be predicted to be taken by Level B Harassment and all animals exposed to less than 173 dB SEL would not be taken by Level B Harassment. As mentioned previously, marine mammal behavioral responses to sound are highly variable and context specific (affected by differences in acoustic conditions; differences between species and populations; differences in gender, age, reproductive status, or social behavior; or the prior experience of the individuals), which does not support the use of a step function to estimate behavioral harassment.

Unlike step functions, acoustic risk continuum functions (which are also called "exposure-response functions,"

"dose-response functions," or "stress-response functions" in other risk assessment contexts) allow for probability of a response that NMFS would classify as harassment to occur over a range of possible received levels (instead of one number) and assume that the probability of a response depends first on the "dose" (in this case, the received level of sound) and that the probability of a response increases as the "dose" increases (see Figure 1a). In January 2009, NMFS issued 3 final rules governing the incidental take of marine mammals (Navy's Hawaii Range Complex, Southern California Range Complex, and Atlantic Fleet Active Sonar Training) that used a risk continuum to estimate the percentage of marine mammals exposed to various levels of MFAS that would respond in a manner NMFS considers harassment. The Navy and NMFS have previously used acoustic risk functions to estimate the probable responses of marine mammals to acoustic exposures for other training and research programs. Examples of previous application include the Navy FEISs on the SURTASS LFA sonar (U.S. Department of the Navy, 2001c); the North Pacific Acoustic Laboratory experiments conducted off the Island of Kauai (Office of Naval Research, 2001), and the Supplemental EIS for SURTASS LFA sonar (U.S. Department of the Navy, 2007d). As discussed in the Effects section, factors other than received level (such as distance from or bearing to the sound source) can affect the way that marine mammals respond; however, data to support a quantitative analysis of those (and other factors) do not currently exist. NMFS will continue to modify these criteria as new data that meet NMFS standards of quality become available and can be appropriately and effectively incorporated.

The particular acoustic risk functions developed by NMFS and the Navy (see Figures 1a and 1b) estimate the probability of behavioral responses to MFAS/HFAS (interpreted as the percentage of the exposed population) that NMFS would classify as harassment for the purposes of the MMPA given exposure to specific received levels of MFAS/HFAS. The mathematical function (below) underlying this curve is a cumulative probability distribution adapted from a solution in Feller (1968) and was also used in predicting risk for the Navy's SURTASS LFA MMPA authorization as well.

$$R = \frac{1 - \left(\frac{L-B}{K}\right)^{-A}}{1 - \left(\frac{L-B}{K}\right)^{-2.4}}$$

Where:

R = Risk (0–1.0)

L = Received level (dB re: 1  $\mu\text{Pa}$ )

B = Basement received level = 120 dB re: 1  $\mu\text{Pa}$

K = Received level increment above B where 50-percent risk = 45 dB re: 1  $\mu\text{Pa}$

A = Risk transition sharpness parameter = 10 (odontocetes and pinnipeds) or 8 (mysticetes)

In order to use this function to estimate the percentage of an exposed population that would respond in a manner that NMFS classifies as Level B Harassment, based on a given received level, the values for B, K and A need to be identified.

**B Parameter (Basement)**—The B parameter is the estimated received level below which the probability of disruption of natural behavioral patterns, such as migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered approaches zero for the MFAS/HFAS risk assessment. At this received level, the curve would predict that the percentage of the exposed population that would be taken by Level B Harassment approaches zero. For MFAS/HFAS, NMFS has determined that B = 120 dB. This level is based on a broad overview of the levels at which many species have been reported responding to a variety of sound sources.

**K Parameter (representing the 50 percent Risk Point)**—The K parameter is based on the received level that corresponds to 50% risk, or the received level at which we believe 50% of the animals exposed to the designated received level will respond in a manner that NMFS classifies as Level B Harassment. The K parameter (K = 45 dB) is based on three data sets in which marine mammals exposed to mid-frequency sound sources were reported to respond in a manner that NMFS would classify as Level B Harassment. There is widespread consensus that marine mammal responses to MFA sound signals need to be better defined using controlled exposure experiments (Cox *et al.*, 2006; Southall *et al.*, 2007). The Navy is contributing to an ongoing 3-Phase behavioral response study in the Bahamas that is expected to provide some initial information on beaked whales, the species identified as the most sensitive to MFAS. NMFS is leading this international effort with

scientists from various academic institutions and research organizations to conduct studies on how marine mammals respond to underwater sound exposures. The results from Phase 1 of this study are discussed in the Potential Effects of Specified Activities on Marine Mammals section and the results from Phase 2 are expected to be available in the fall of 2009. Phase 3 will be conducted in the Mediterranean Sea in summer 2009. Additionally, the Navy recently tagged whales in conjunction with the 2008 RIMPAC exercises; however, analysis of these data is not yet complete. Until additional appropriate data are available, however, NMFS and the Navy have determined that the following three data sets are most applicable for direct use in establishing the K parameter for the MFAS/HFAS risk function. These data sets, summarized below, represent the only known data that specifically relate altered behavioral responses (that NMFS would consider Level B Harassment) to exposure—at specific received levels—to MFAS and sources within or having components within the range of MFAS (1–10 kHz).

Even though these data are considered the most representative of the proposed specified activities, and therefore the most appropriate on which to base the K parameter (which basically determines the midpoint) of the risk function, these data have limitations, which are discussed in Appendix D of the Navy's DEIS for NWTRC.

**1. Controlled Laboratory Experiments with Odontocetes (SSC Data set)**—Most of the observations of the behavioral responses of toothed whales resulted from a series of controlled experiments on bottlenose dolphins and beluga whales conducted by researchers at SSC's facility in San Diego, California (Finneran *et al.*, 2001, 2003, 2005; Finneran and Schlundt, 2004; Schlundt *et al.*, 2000). In experimental trials (designed to measure TTS) with marine mammals trained to perform tasks when prompted, scientists evaluated whether the marine mammals still performed these tasks when exposed to mid-frequency tones. Altered behavior during experimental trials usually involved refusal of animals to return to the site of the sound stimulus, but also included attempts to avoid an exposure in progress, aggressive behavior, or refusal to further participate in tests.

Finneran and Schlundt (2004) examined behavioral observations recorded by the trainers or test coordinators during the Schlundt *et al.*, (2000) and Finneran *et al.*, (2001, 2003, 2005) experiments. These included observations from 193 exposure sessions

(fatiguing stimulus level > 141 dB re 1  $\mu\text{Pa}$ ) conducted by Schlundt *et al.*, (2000) and 21 exposure sessions conducted by Finneran *et al.*, (2001, 2003, 2005). The TTS experiments that supported Finneran and Schlundt (2004) are further explained below:

- Schlundt *et al.*, (2000) provided a detailed summary of the behavioral responses of trained marine mammals during TTS tests conducted at SSC San Diego with 1-sec tones and exposure frequencies of 0.4 kHz, 3 kHz, 10 kHz, 20 kHz and 75 kHz. Schlundt *et al.*, (2000) reported eight individual TTS experiments. The experiments were conducted in San Diego Bay. Because of the variable ambient noise in the bay, low-level broadband masking noise was used to keep hearing thresholds consistent despite fluctuations in the ambient noise. Schlundt *et al.*, (2000) reported that "behavioral alterations," or deviations from the behaviors the animals being tested had been trained to exhibit, occurred as the animals were exposed to increasing fatiguing stimulus levels.

- Finneran *et al.*, (2001, 2003, 2005) conducted 2 separate TTS experiments using 1-sec tones at 3 kHz. The test methods were similar to that of Schlundt *et al.*, (2000) except the tests were conducted in a pool with very low ambient noise level (below 50 dB re 1  $\mu\text{Pa}^2/\text{hertz}$  [Hz]), and no masking noise was used. In the first, fatiguing sound levels were increased from 160 to 201 dB SPL. In the second experiment, fatiguing sound levels between 180 and 200 dB SPL were randomly presented.

Bottlenose dolphins exposed to 1-second (sec) intense tones exhibited short-term changes in behavior above received sound levels of 178 to 193 dB re 1  $\mu\text{Pa}$  (rms), and beluga whales did so at received levels of 180 to 196 dB and above.

**2. Mysticete Field Study (Nowacek *et al.*, 2004)**—The only available and applicable data relating mysticete responses to exposure to mid-frequency sound sources is from Nowacek *et al.*, (2004). Nowacek *et al.*, (2004) documented observations of the behavioral response of North Atlantic right whales exposed to alert stimuli containing mid-frequency components in the Bay of Fundy. Investigators used archival digital acoustic recording tags (DTAG) to record the behavior (by measuring pitch, roll, heading, and depth) of right whales in the presence of an alert signal, and to calibrate received sound levels. The alert signal was 18 minutes of exposure consisting of three 2-minute signals played sequentially three times over. The three signals had a 60% duty cycle and

consisted of: (1) Alternating 1-sec pure tones at 500 Hz and 850 Hz; (2) a 2-sec logarithmic down-sweep from 4,500 Hz to 500 Hz; and (3) a pair of low (1,500 Hz)-high (2,000 Hz) sine wave tones amplitude modulated at 120 Hz and each 1-sec long. The purposes of the alert signal were (a) to pique the mammalian auditory system with disharmonic signals that cover the whales' estimated hearing range; (b) to maximize the signal to noise ratio (obtain the largest difference between background noise) and (c) to provide localization cues for the whale. The maximum source level used was 173 dB SPL.

Nowacek *et al.* (2004) reported that five out of six whales exposed to the alert signal with maximum received levels ranging from 133 to 148 dB re 1  $\mu$ Pa significantly altered their regular behavior and did so in identical fashion. Each of these five whales: (i) Abandoned their current foraging dive prematurely as evidenced by curtailing their 'bottom time'; (ii) executed a shallow-angled, high power (*i.e.*, significantly increased fluke stroke rate) ascent; (iii) remained at or near the surface for the duration of the exposure, an abnormally long surface interval; and (iv) spent significantly more time at subsurface depths (1–10 m) compared with normal surfacing periods when whales normally stay within 1 m (1.1 yd) of the surface.

3. *Odontocete Field Data (Haro Strait—USS SHOUP)*—In May 2003, killer whales (*Orcinus orca*) were observed exhibiting behavioral responses generally described as avoidance behavior while the U.S. Ship (USS) SHOUP was engaged in MFAS in the Haro Strait in the vicinity of Puget Sound, Washington. Those observations have been documented in three reports developed by Navy and NMFS (NMFS, 2005; Fromm, 2004a, 2004b; DON, 2003). Although these observations were made in an uncontrolled environment, the sound field that may have been associated with the active sonar operations was estimated using standard

acoustic propagation models that were verified (for some but not all signals) based on calibrated *in situ* measurements from an independent researcher who recorded the sounds during the event. Behavioral observations were reported for the group of whales during the event by an experienced marine mammal biologist who happened to be on the water studying them at the time. The observations associated with the USS SHOUP provide the only data set available of the behavioral responses of wild, non-captive animal upon actual exposure to AN/SQS-53 sonar.

U.S. Department of Commerce (National Marine Fisheries, 2005a); U.S. Department of the Navy (2004b); and Fromm (2004a, 2004b) documented reconstruction of sound fields produced by USS SHOUP associated with the behavioral response of killer whales observed in Haro Strait. Observations from this reconstruction included an approximate closest approach time which was correlated to a reconstructed estimate of received level. Observations from this reconstruction included an estimate of 169.3 dB SPL which represents the mean level at a point of closest approach within a 500 m wide area in which the animals were exposed. Within that area, the estimated received levels varied from approximately 150 to 180 dB SPL.

*Calculation of K Parameter*—NMFS and the Navy used the mean of the following values to define the midpoint of the function: (1) The mean of the lowest received levels (185.3 dB) at which individuals responded with altered behavior to 3 kHz tones in the SSC data set; (2) the estimated mean received level value of 169.3 dB produced by the reconstruction of the USS SHOUP incident in which killer whales exposed to MFAS (range modeled possible received levels: 150 to 180 dB); and (3) the mean of the 5 maximum received levels at which Nowacek *et al.* (2004) observed significantly altered responses of right whales to the alert stimuli than to the

control (no input signal) is 139.2 dB SPL. The arithmetic mean of these three mean values is 165 dB SPL. The value of K is the difference between the value of B (120 dB SPL) and the 50% value of 165 dB SPL; therefore, K = 45.

*A Parameter (Steepness)*—NMFS determined that a steepness parameter (A) = 10 is appropriate for odontocetes (except harbor porpoises) and pinnipeds and A = 8 is appropriate for mysticetes.

The use of a steepness parameter of A = 10 for odontocetes for the MFAS/HFAS risk function was based on the use of the same value for the SURTASS LFA risk continuum, which was supported by a sensitivity analysis of the parameter presented in Appendix D of the SURTASS/LFA FEIS (U.S. Department of the Navy, 2001c). As concluded in the SURTASS FEIS/EIS, the value of A = 10 produces a curve that has a more gradual transition than the curves developed by the analyses of migratory gray whale studies (Malme *et al.*, 1984; Buck and Tyack, 2000; and SURTASS LFA Sonar EIS, Subchapters 1.4.3, 4.2.4.3 and Appendix D, and National Marine Fisheries Service, 2008).

NMFS determined that a lower steepness parameter (A = 8), resulting in a shallower curve, was appropriate for use with mysticetes and MFAS/HFAS. The Nowacek *et al.* (2004) data set contains the only data illustrating mysticete behavioral responses to a sound source that encompasses frequencies in the mid-frequency sound spectrum. A shallower curve (achieved by using A = 8) better reflects the risk of behavioral response at the relatively low received levels at which behavioral responses of right whales were reported in the Nowacek *et al.* (2004) data. Compared to the odontocete curve, this adjustment results in an increase in the proportion of the exposed population of mysticetes being classified as behaviorally harassed at lower RLs, such as those reported in and supported by the only data set currently available.

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### Risk Function for Odontocetes and Pinnipeds

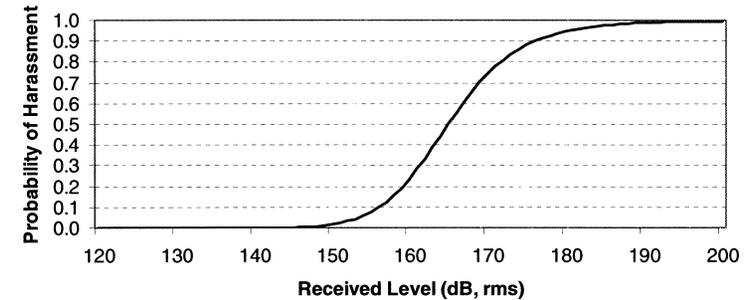


Figure 1a. Risk function for odontocetes and pinnipeds. B=120 dB, K=45 dB, A=10

### Risk Function for Mysticetes

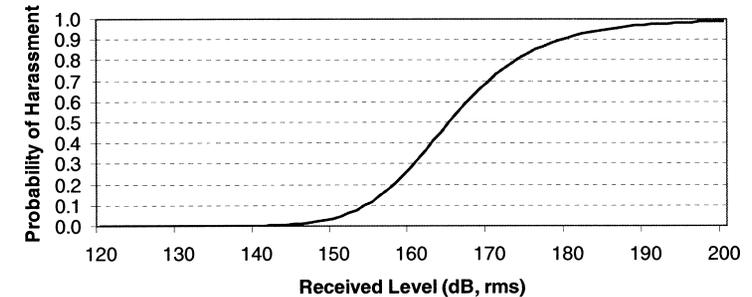


Figure 1b. Risk function for mysticetes. B=120 dB, K=45 dB, A=8.

*Basic Application of the Risk Function*—The risk function is used to estimate the percentage of an exposed population that is likely to exhibit behaviors that would qualify as harassment (as that term is defined by the MMPA applicable to military readiness activities, such as the Navy's testing and training with MFAS) at a given received level of sound. For

example, at 165 dB SPL (dB re: 1 $\mu$ Pa rms), the risk (or probability) of harassment is defined according to this function as 50%, and Navy/NMFS applies that by estimating that 50% of the individuals exposed at that received level are likely to respond by exhibiting behavior that NMFS would classify as behavioral harassment. The risk

function is not applied to individual animals, only to exposed populations.

The data primarily used to produce the risk function (the K parameter) were compiled from four species that had been exposed to sound sources in a variety of different circumstances. As a result, the risk function represents a general relationship between acoustic exposures and behavioral responses that

is then applied to specific circumstances. That is, the risk function represents a relationship that is deemed to be generally true, based on the limited, best-available science, but may not be true in specific circumstances. In particular, the risk function, as currently derived, treats the received level as the only variable that is relevant to a marine mammal's behavioral response. However, we know that many other variables—the marine mammal's gender, age, and prior experience; the activity it is engaged in during an exposure event, its distance from a sound source, the number of sound sources, and whether the sound sources are approaching or moving away from the animal—can be critically important in determining whether and how a marine mammal will respond to a sound source (Southall *et al.*, 2007). The data that are currently available do not allow for incorporation of these other variables in the current risk functions; however, the risk function represents the best use of the data that are available. Additionally, although these other factors cannot be taken into consideration quantitatively in the risk function, NMFS considers these other variables qualitatively in our analysis, when applicable data are available.

As more specific and applicable data become available for MFAS/HFAS sources, NMFS can use these data to modify the outputs generated by the risk function to make them more realistic. Ultimately, data may exist to justify the

use of additional, alternate, or multivariate functions. For example, as mentioned previously, the distance from the sound source and whether it is perceived as approaching or moving away can affect the way an animal responds to a sound (Wartzok *et al.*, 2003). In the NWTRC example, animals exposed to received levels between 120 and 140 dB may be 28–70 nm (51–130 km) from a sound source depending on seasonal variations; those distances could influence whether those animals perceive the sound source as a potential threat, and their behavioral responses to that threat. Though there are data showing response of certain marine mammal species to mid-frequency sound sources at that received level, NMFS does not currently have any data that describe the response of marine mammals to mid-frequency sounds at that distance, much less data that compare responses to similar sound levels at varying distances (much less for MFAS/HFAS). However, if applicable data meeting NMFS standards were to become available, NMFS would re-evaluate the risk function and to incorporate any additional variables into the "take" estimates.

**Harbor Porpoise Behavioral Harassment Criteria**

The information currently available regarding these inshore species that inhabit shallow and coastal waters suggests a very low threshold level of

response for both captive and wild animals. Threshold levels at which both captive (*e.g.* Kastelein *et al.*, 2000; Kastelein *et al.*, 2005; Kastelein *et al.*, 2006, Kastelein *et al.*, 2008) and wild harbor porpoises (*e.g.* Johnston, 2002) responded to sound (*e.g.* acoustic harassment devices (ADHs), acoustic deterrent devices (ADDs), or other non-pulsed sound sources) is very low (*e.g.* ~120 dB SPL), although the biological significance of the disturbance is uncertain. Therefore, a step function threshold of 120 dB SPL was used to estimate take of harbor porpoises instead of the risk functions used for other species (*i.e.*, we assume for the purpose of estimating take that all harbor porpoises exposed to 120 dB or higher MFAS/HFAS will be taken by Level B behavioral harassment).

**Explosive Detonation Criteria**

The criteria for mortality, Level A Harassment, and Level B Harassment resulting from explosive detonations were initially developed for the Navy's Seawolf and Churchill ship-shock trials and have not changed since other MMPA authorizations issued for explosive detonations. The criteria, which are applied to cetaceans and pinnipeds, are summarized in Table 7. Additional information regarding the derivation of these criteria is available in the Navy's DEIS for the NWTRC, the LOA application, and in the Navy's CHURCHILL FEIS (U.S. Department of the Navy, 2001c).

Type of Effect	Criteria	Metric	Threshold	MMPA
Mortality	Onset of Extensive Lung Injury	Goertner modified positive impulse	indexed to 30.5 psi-msec (assumes 100 percent small animal at 26.9 lbs)	Mortality
Injurious Physiological	50% Tympanic Membrane Rupture	Energy flux density	1.17 in-lb/in <sup>2</sup> (about 205 dB re 1 microPa <sup>2</sup> -sec)	Level A Harassment
Injurious Physiological	Onset Slight Lung Injury	Goertner modified positive impulse	indexed to 13 psi-msec (assumes 100 percent small animal at 26.9 lbs)	Level A Harassment
Non-injurious Physiological	TTS	Greatest energy flux density level in any 1/3-octave band (> 100 Hz for toothed whales and > 10 Hz for baleen whales) - for total energy over all exposures	182 dB re 1 microPa <sup>2</sup> -sec	Level B Harassment
Non-injurious Physiological	TTS	Peak pressure over all exposures	23 psi	Level B Harassment
Non-injurious Behavioral	Multiple Explosions Without TTS	Greatest energy flux density level in any 1/3-octave (> 100 Hz for toothed whales and > 10 Hz for baleen whales) - for total energy over all exposures (multiple explosions only)	177 dB re 1 microPa <sup>2</sup> -sec	Level B Harassment

Table 7. Summary of Explosive Criteria

**Estimates of Potential Marine Mammal Exposure**

Estimating the take that will result from the proposed activities entails the following three general steps: (1) Propagation model estimates animals exposed to sources at different levels; (2) further modeling determines number of exposures to levels indicated in criteria above (*i.e.*, number of takes); and (3) post-modeling corrections refine estimates to make them more accurate. More information regarding the models used, the assumptions used in the models, and the process of estimating take is available in Appendix D of the Navy's DEIS for NWTRC.

(1) In order to quantify the types of take described in previous sections that are predicted to result from the Navy's specified activities, the Navy first uses a sound propagation model that predicts the number of animals that will be exposed to a range of levels of pressure and energy (of the metrics used in the criteria) from MFAS/HFAS and explosive detonations based on several important pieces of information, including:

- Characteristics of the sound sources.

- Active sonar source characteristics include: Source level (with horizontal and vertical directivity corrections), source depth, center frequency, source directivity (horizontal/vertical beam width and horizontal/vertical steer direction), and ping spacing.
- Explosive source characteristics include: The weight of an explosive, the type of explosive, the detonation depth, number of successive explosions.
- Transmission loss (in 16 representative environmental provinces in two seasons) based on: Water depth; sound speed variability throughout the water column (warm season exhibits a weak surface duct, cold season exhibits a relatively strong surface duct); bottom geo-acoustic properties (bathymetry); and wind speed.
- The estimated density of each marine mammal species in the NWTRC (*see* Table 4), horizontally distributed uniformly and vertically distributed according to dive profiles based on field data.

(2) Next, the criteria discussed in the previous section are applied to the estimated exposures to predict the number of exposures that exceed the criteria, *i.e.*, the number of takes by

Level B Harassment, Level A Harassment, and mortality.

(3) During the development of the EIS for NWTRC, NMFS and the Navy determined that the output of the model could be made more realistic by applying post-modeling corrections to account for the following:

- Acoustic footprints for active sonar sources must account for land masses (by subtracting them out).
- Acoustic footprints for active sonar sources should not be added independently; rather, the degree to which the footprints from multiple ships participating in the same exercise would typically overlap needs to be taken into consideration.
- Acoustic modeling should account for the maximum number of individuals of a species that could potentially be exposed to active sonar within the course of 1 day or a discreet continuous sonar event if less than 24 hours.

Last, the Navy's specified activities have been described based on best estimates of the number of MFAS/HFAS hours that the Navy will conduct. The exact number of hours may vary from year to year but will not exceed the 5-year total indicated in Table 8 (by multiplying the yearly estimate by 5) by

more than 10%. NMFS estimates that a 10-percent increase in active sonar hours would result in approximately a 10-percent increase in the number of takes, and we have considered this possibility in our analysis.

The Navy's model provides a systematic and repeatable way of estimating the number of animals that

will be taken by Level A and Level B Harassment. The model is based on the sound propagation characteristics of the sound sources, physical characteristics of the surrounding environment, and a uniform density of marine mammals. As mentioned in the previous sections, many other factors will likely affect how and the degree to which marine

mammals are impacted both at the individual and species level by the Navy's activity (such as social ecology of the animals, long term exposures in one area, etc.); however, in the absence of quantitative data, NMFS has, and will continue, to evaluate that sort of information qualitatively.

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Species	Modeled Sonar Exposures to Indicated Thresholds			Modeled Explosive Exposures to Indicated Thresholds			NMFS Proposed Annual Take Authorization		
	Level B Exposures		Level A Exposures	Level B Exposures		Level A Exposures	Level B Harassment	Level A Harassment	Mortality
	Risk Function	TTS		Sub-TTS	TTS				
<b>ESA-listed / MMPA depleted Species</b>									
Blue whale	17	0	0	1	1	1	19	1	0
Fin whale	123	2	0	12	7	1	144	1	0
Humpback whale	15	0	0	0	0	0	15	0	0
Killer Whale	14	0	0	0	0	0	14	0	0
Sei whale	1	0	0	0	0	0	1	0	0
Sperm whale	102	2	0	13	10	1	127	1	0
Steller Sea Lion	114	0	0	3	3	1	120	1	0
<b>Mysticetes</b>									
Grey whale	4	0	0	0	0	0	4	0	0
Minke whale	9	0	0	0	0	0	9	0	0
<b>Odontocetes</b>									
Baird's beaked whale	12	0	0	1	0	0	13	0	0
Bottlenose dolphin	0	0	0	0	0	0	0	0	0
Cuvier's beaked whale	12	0	0	1	1	0	14	0	0
Dall's porpoise	4,485	147	0	62	58	3	4,752	3	0
Dwarf / Pygmy sperm whale	3	0	0	1	0	0	4	0	0
Harbor porpoise	119,215	45	0	9	5	1	119,274	1	0
Mesoplodon spp.	14	0	0	1	0	0	15	0	0
Northern right whale dolphin	705	18	0	11	7	1	741	1	0
Pacific white-sided dolphin	537	23	0	8	3	0	571	0	0
Risso's dolphin	85	2	0	9	4	0	100	0	0
Short beaked common dolphin	1,142	42	0	49	23	2	1,256	2	0
Short-finned pilot whale	2	0	0	0	0	0	2	0	0
Striped dolphin	38	1	0	0	1	0	40	0	0
<b>Pinnipeds</b>									
Northern elephant seal	296	0	0	53	29	2	378	2	0
Pacific harbor seal	394	290	1	2	0	0	566	1	0
California sea lion	283	0	0	2	1	0	286	0	0
Northern fur seal	1,296	1	0	24	44	1	1365	1	0
<b>Total</b>	<b>128,583</b>	<b>528</b>	<b>1</b>	<b>262</b>	<b>197</b>	<b>12</b>	<b>128,570</b>	<b>13</b>	<b>0</b>

Table 8. Annual Navy estimated and NMFS proposed authorized take of marine mammals.

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**Mortality**

Evidence from five beaked whale strandings, all of which have taken

place outside the NWTRC Range Complex, and have occurred over approximately a decade, suggests that the exposure of beaked whales to MFAS in the presence of certain conditions

(e.g., multiple units using active sonar, steep bathymetry, constricted channels, strong surface ducts, etc.) may result in strandings, potentially leading to mortality. Although these physical

factors believed to have contributed to the likelihood of beaked whale strandings are not present, in their aggregate, in the NWTRC, scientific uncertainty exists regarding what other factors, or combination of factors, may contribute to beaked whale strandings. However, because none of the MFAS/HFAS ASW exercises conducted in the NWTRC are major exercises employing multiple surface vessels, the exercises last 1.5 hours or less, and only 65 exercises are planned (for a total of about 100 hours of surface vessel sonar operation), NMFS and the Navy believe it is highly unlikely that marine mammals would respond to these exercises in a manner that would result in a stranding. Therefore, no authorization for mortality has been requested or proposed.

#### Effects on Marine Mammal Habitat

The Navy's proposed training exercises could potentially affect marine mammal habitat through the introduction of pressure, sound, and expendable materials into the water column, which in turn could impact prey species of marine mammals, or cause bottom disturbance or changes in water quality. Each of these components was considered in the NWTRC DEIS and was determined by the Navy to have no effect on marine mammal habitat. Based on the information below and the supporting information included in the Navy's DEIS, NMFS has preliminarily determined that the NWTRC training activities will not have significant or long term impacts on marine mammal habitat. Unless the sound source or explosive detonation is stationary and/or continuous over a long duration in one area, the effects of the introduction of sound into the environment are generally considered to have a less severe impact on marine mammal habitat than the physical alteration of the habitat. Marine mammals may be temporarily displaced from areas where Navy training is occurring, but the area will likely be utilized again after the activities have ceased. A summary of the conclusions are included in subsequent sections.

#### Critical Habitat

Critical Habitat has been designated for 2 species in the NWTRC, southern resident killer whales (in the inshore area) and Steller sea lions (3 haulouts near the southern end of the offshore area). No sonar training is planned for the inshore area and explosive use will be limited to 4 detonations of small 2.5-lb charges annually. The Navy plans to abide by the 3000-ft air and water stand-off distances associated with the Steller

sea lion critical habitat. Effects to designated critical habitat will be fully analyzed in the Navy's ESA Section 7 consultation for the NWTRC.

#### Effects on Food Resources

##### Fish

The Navy's DEIS includes a detailed discussion of the effects of active sonar on marine fish. In summary, studies have indicated that acoustic communication and orientation of fish may be restricted by anthropogenic sound in their environment. However, the vast majority of fish species studied to date are hearing generalists and cannot hear sounds above 500 to 1,500 Hz (0.5 to 1.5 kHz) (depending upon the species). Therefore, these fish species are not likely to be affected behaviorally from higher frequency sounds such as MFAS/HFAS. Moreover, even those marine species that may hear above 1.5 kHz, such as a few sciaenids and the clupeids (and relatives), have relatively poor hearing above 1.5 kHz as compared to their hearing sensitivity at lower frequencies, so it is likely that the fish will only actually hear the sounds if the fish and source were fairly close to one another. Finally, since the vast majority of sounds that are of biological relevance to fish are below 1 kHz (*e.g.*, Zelic *et al.*, 1999; Ladich and Popper, 2004), even if a fish detects a mid- or high-frequency sound, these sounds will not likely mask detection of lower frequency biologically relevant sounds. Thus, based on the available information, a reasonable conclusion is that there will be few, and more likely no, impacts on the behavior of fish from active sonar.

Though mortality has been shown to occur in one species, a hearing specialist, as a result of exposure to non-impulsive sources, the available evidence does not suggest that exposures such as those anticipated from MFAS/HFAS would result in significant fish mortality on a population level. The mortality that was observed was considered insignificant in light of natural daily mortality rates. Experiments have shown that exposure to loud sound can result in significant threshold shifts in certain fish that are classified as hearing specialists (but not those classified as hearing generalists). Threshold shifts are temporary, and considering the best available data, no data exist that demonstrate any long-term negative effects on marine fish from underwater sound associated with active sonar activities. Further, while fish may respond behaviorally to mid-frequency sources, this behavioral

modification is only expected to be brief and not biologically significant.

There are currently no well-established thresholds for estimating effects to fish from explosives other than mortality models. Fish that are located in the water column, in proximity to the source of detonation could be injured, killed, or disturbed by the impulsive sound and possibly temporarily leave the area. Continental Shelf Inc. (2004) summarized a few studies conducted to determine effects associated with removal of offshore structures (*e.g.*, oil rigs) in the Gulf of Mexico. Their findings revealed that at very close range, underwater explosions are lethal to most fish species regardless of size, shape, or internal anatomy. For most situations, cause of death in fishes has been massive organ and tissue damage and internal bleeding. At longer range, species with gas-filled swimbladders (*e.g.*, snapper, cod, and striped bass) are more susceptible than those without swimbladders (*e.g.*, flounders, eels). Studies also suggest that larger fishes are generally less susceptible to death or injury than small fishes. Moreover, elongated forms that are round in cross section are less at risk than deep-bodied forms; and orientation of fish relative to the shock wave may affect the extent of injury. Open water pelagic fish (*e.g.*, mackerel) also seem to be less affected than reef fishes. The results of most studies are dependent upon specific biological, environmental, explosive, and data recording factors.

The huge variations in the fish population, including numbers, species, sizes, and orientation and range from the detonation point, make it very difficult to accurately predict mortalities at any specific site of detonation. As mentioned previously, though, only 4 small detonations are planned for the inshore area and the exercises involving larger detonations are conducted far offshore. Most fish species experience a large number of natural mortalities, especially during early life-stages, and any small level of mortality caused by the NWTRC training exercises involving explosives will likely be insignificant to the population as a whole.

##### Invertebrates

Very little is known about sound detection and use of sound by invertebrates (*see* Budelmann 1992a, b, Popper *et al.*, 2001 for reviews). The limited data shows that some crabs are able to detect sound, and there has been the suggestion that some other groups of invertebrates are also able to detect sound. In addition, cephalopods (octopus and squid) and decapods (lobster, shrimp, and crab) are thought

to sense low-frequency sound (Budelmann, 1992b). Packard *et al.* (1990) reported sensitivity to sound vibrations between 1–100 Hz for three species of cephalopods. McCauley *et al.* (2000) found evidence that squid exposed to seismic airguns show a behavioral response including inking. However, these were caged animals, and it is not clear how unconfined animals may have responded to the same signal and at the same distances used. In another study, Wilson *et al.* (2007) played back echolocation clicks of killer whales to two groups of squid (*Loligo pealeii*) in a tank. The investigators observed no apparent behavioral effects or any acoustic debilitation from playback of signals up to 199 to 226 dB re 1 µPa. It should be noted, however, that the lack of behavioral response by the squid may have been because the animals were in a tank rather than being in the wild. In another report on squid, Guerra *et al.* (2004) claimed that dead giant squid turned up around the time of seismic airgun operations off of Spain. The authors suggested, based on analysis of carcasses, that the damage to the squid was unusual when compared to other dead squid found at other times. However, the report presents conclusions based on a correlation to the time of finding of the carcasses and seismic testing, but the evidence in support of an effect of airgun activity was totally circumstantial. Moreover, the data presented showing damage to tissue is highly questionable since there was no way to differentiate between damage due to some external cause (*e.g.*, the seismic airgun) and normal tissue degradation that takes place after death, or due to poor fixation and preparation of tissue. To date, this work has not been published in peer reviewed literature, and detailed images of the reportedly damaged tissue are also not available.

In summary, baleen whales feed on the aggregations of krill and small schooling fish, while toothed whales feed on epipelagic, mesopelagic, and bathypelagic fish and squid. As summarized above and in the NWTRC EIS/OEIS in more detail, potential impacts to marine mammal food resources within the NWTRC is negligible given both lack of hearing sensitivity to mid-frequency sonar, the very geographic and spatially limited scope of most Navy at sea activities including underwater detonations, and the high biological productivity of these resources. No short or long term effects to marine mammal food resources from Navy activities are anticipated within the NWTRC.

#### Military Expendable Material

Marine mammals are subject to entanglement in expended materials, particularly anything incorporating loops or rings, hooks and lines, or sharp objects. Most documented cases of entanglements occur when whales encounter the vertical lines of fixed fishing gear. This section summarizes the potential effects of expended materials on marine mammals. Detailed discussion of military expendable material is contained within the NWTRC EIS.

The Navy endeavors to recover expended training materials. Notwithstanding, it is not possible to recover all training materials, and some may be encountered by marine mammals in the waters of the NWTRC. Debris related to military activities that is not recovered generally sinks; the amount that might remain on or near the sea surface is low, and the density of such expendable materials in the NWTRC would be very low. Types of training materials that might be encountered include: Parachutes of various types (*e.g.*, those employed by personnel or on targets, flares, or sonobuoys); torpedo guidance wires, torpedo "flex hoses;" cable assemblies used to facilitate target recovery; sonobuoys; and EMATT. Although sunken debris might be of increased concern for bottom-feeding marine mammals, like the gray whale, again, the low density is such that it is very unlikely that animals would interact with any of these materials.

Entanglement in military expendable material was not cited as a source of injury or mortality for any marine mammals recorded in a large marine mammal and sea turtle stranding database for California waters, an area with much higher density of marine mammals. Therefore as discussed in the NWTRC EIS, expendable material is highly unlikely to directly affect marine mammal species or potential habitat within the NWTRC.

NMFS Office of Habitat Conservation is working with the Navy to better identify the potential risks of expended materials from the Navy activities as they relate to Essential Fish Habitat. These effects are indirectly related to marine mammal habitat, but based on the extent of the likely effects described in the Navy's DEIS, NMFS' Office of Protected Resources has preliminarily determined that they will not result in significant impacts to marine mammal habitat. The outcome of this consultation will further inform the marine mammal habitat analysis in the final rule.

#### Water Quality

The NWTRC EIS/OEIS analyzed the potential effects to water quality Expendable Mobile ASW Training Target (EMATT) batteries. In addition, sonobuoys were not analyzed since, once scuttled, their electrodes are largely exhausted during use and residual constituent dissolution occurs more slowly than the releases from activated seawater batteries. As such, only the potential effects of batteries and explosions on marine water quality in and surrounding the sonobuoy training area were completed. It was determined that there would be no significant effect to water quality from seawater batteries, lithium batteries, and thermal batteries associated with scuttled sonobuoys.

EMATTs use lithium sulfur dioxide batteries. The constituents in the battery react to form soluble hydrogen gas and lithium dithionite. The hydrogen gas eventually enters the atmosphere and the lithium hydroxide dissociates, forming lithium ions and hydroxide ions. The hydroxide is neutralized by the hydronium formed from hydrolysis of the acidic sulfur dioxide, ultimately forming water. Sulfur dioxide, a gas that is highly soluble in water, is the major reactive component in the battery. The sulfur oxide ionizes in the water, forming bisulfite (HSO<sub>3</sub>) that is easily oxidized to sulfate in the slightly alkaline environment of the ocean. Sulfur is present as sulfate in large quantities (*i.e.*, 885 milligrams per liter [mg/L]) in the ocean. Thus, it was determined that there would be no significant effect to water quality from lithium sulfur batteries associated with scuttled EMATTs.

#### Analysis and Negligible Impact Determination

Pursuant to NMFS' regulations implementing the MMPA, an applicant is required to estimate the number of animals that will be "taken" by the specified activities (*i.e.*, takes by harassment only, or takes by harassment, injury, and/or death). This estimate informs the analysis that NMFS must perform to determine whether the activity will have a "negligible impact" on the affected species or stock. Level B (behavioral) harassment occurs at the level of the individual(s) and does not assume any resulting population-level consequences, though there are known avenues through which behavioral disturbance of individuals can result in population-level effects (for example: Pink-footed geese (*Anser brachyrhynchus*) in undisturbed habitat gained body mass and had about a 46-

percent reproductive success compared with geese in disturbed habitat (being consistently scared off the fields on which they were foraging) which did not gain mass and has a 17-percent reproductive success). A negligible impact finding is based on the lack of likely adverse effects on annual rates of recruitment or survival (*i.e.*, population-level effects). An estimate of the number of Level B harassment takes, alone, is not enough information on which to base an impact determination. In addition to considering estimates of the number of marine mammals that might be "taken" through behavioral harassment, NMFS must consider other factors, such as the likely nature of any responses (their intensity, duration, *etc.*), the context of any responses (critical reproductive time or location, migration, *etc.*), as well as the number and nature of estimated Level A takes, the number of estimated mortalities, and effects on habitat. Generally speaking, and especially with other factors being equal, the Navy and NMFS anticipate more severe effects from takes resulting from exposure to higher received levels (though this is in no way a strictly linear relationship throughout species, individuals, or circumstances) and less severe effects from takes resulting from exposure to lower received levels.

The Navy's specified activities have been described based on best estimates

of the number of MFAS/HFAS hours that the Navy will conduct. The exact number of hours (or torpedoes, or pings, whatever unit the source is estimated in) may vary from year to year, but will not exceed the 5-year total indicated in Table 8 (by multiplying the yearly estimate by 5) by more than 10 percent. NMFS estimates that a 10-percent increase in active sonar hours (torpedoes, pings, *etc.*) would result in approximately a 10-percent increase in the number of takes, and we have considered this possibility and the effect of the additional active sonar use in our analysis.

Taking the above into account, considering the sections discussed below, and dependent upon the implementation of the proposed mitigation measures, NMFS has preliminarily determined that Navy training exercises utilizing MFAS/HFAS and underwater detonations will have a negligible impact on the marine mammal species and stocks present in the NWTRC Range Complex.

#### Behavioral Harassment

As discussed in the Potential Effects of Exposure of Marine Mammals to MFAS/HFAS and illustrated in the conceptual framework, marine mammals can respond to MFAS/HFAS in many different ways, a subset of which qualify as harassment (*see*

Behavioral Harassment Section). One thing that the take estimates do not take into account is the fact that most marine mammals will likely avoid strong sound sources to one extent or another. Although an animal that avoids the sound source will likely still be taken in some instances (such as if the avoidance results in a missed opportunity to feed, interruption of reproductive behaviors, *etc.*) in other cases avoidance may result in fewer instances of take than were estimated or in the takes resulting from exposure to a lower received level than was estimated, which could result in a less severe response. For MFAS/HFAS, the Navy provided information (Table 9) estimating what percentage of the total takes that will occur within the 10-dB bins (without considering mitigation or avoidance) that are within the received levels considered in the risk continuum and for TTS and PTS. This table applies specifically to AN/SQS-53C hull-mounted active sonar (the most powerful source), with less powerful sources the percentages would increase slightly in the lower received levels and correspondingly decrease in the higher received levels. As mentioned above, an animal's exposure to a higher received level is more likely to result in a behavioral response that is more likely to adversely affect the health of the animal.

Received Level (SPL)	Distance At Which Levels Occur in NWTRC	Percent of Total Harassment Takes Estimated to Occur at Indicated Level
Below 140 dB	51 km - 130 km	< 1%
140 < Level < 150 dB	25 km - 51 km	2%
150 < Level < 160 dB	10 km - 25 km	18%
160 < Level < 170 dB	3 km - 10 km	43%
170 < Level < 180 dB	560 m - 3 km	28%
180 < Level	0 m - 560 m	< 9%

**Table 9.** Approximate percent of estimated takes that occur in the indicated 10-dB bins for AN/SQS-53 (the most powerful source). For smaller sources, a higher % of the takes occur at lower levels, and a lower % at higher levels.

Because of the comparatively small amount of MFAS/HFAS sonar training the Navy has only been conducting offshore in the NWTRC, the fact that they have not been monitoring pursuant to those activities to date, and because of the overall data gap regarding the effects MFAS/HFAS has on marine mammals, not a lot is known regarding how marine mammals in the NWTRC will respond to MFAS/HFAS (with the exception of the SHOUP incident

mentioned previously—but since then no sonar training has been conducted in the Inshore area). Twelve monitoring reports from the Southern California Range Complex for major training exercises indicate that watchstanders have observed no instances of obvious behavioral disturbance in the more than 704 marine mammal sightings of 7,435 animals (9,000+ hours of effort, though only 4 of the 12 reports reported the total number of hours of observation).

One cannot conclude from these results that marine mammals were not harassed from MFAS/HFAS, as a portion of animals within the area of concern were not seen (especially those more cryptic, deep-diving species, such as beaked whales or *Kogia* spp.) and some of the non-biologist watchstanders might not be well-qualified to characterize behaviors. However, one can say that the animals that were observed did not respond in any of the obviously more

severe ways, such as panic, aggression, or anti-predator response.

In addition to the monitoring that will be required pursuant to these regulations and any corresponding LOAs, which is specifically designed to help us better understand how marine mammals respond to sound, the Navy and NMFS have developed, funded, and begun conducting a controlled exposure experiment with beaked whales in the Bahamas. Separately, the Navy and NMFS conducted an opportunistic tagging experiment with beaked whales in the area of the 2008 Rim of the Pacific training exercises in the HRC.

#### Diel Cycle

As noted previously, many animals perform vital functions, such as feeding, resting, traveling, and socializing on a diel cycle (24-hr cycle). Substantive behavioral reactions to noise exposure (such as disruption of critical life functions, displacement, or avoidance of important habitat) are more likely to be significant if they last more than one diel cycle or recur on subsequent days (Southall *et al.*, 2007). Consequently, a behavioral response lasting less than one day and not recurring on subsequent days is not considered particularly severe unless it could directly affect reproduction or survival (Southall *et al.*, 2007).

In the previous section, we discussed the fact that potential behavioral responses to MFAS/HFAS that fall into the category of harassment could range in severity. By definition, the takes by behavioral harassment involve the disturbance of a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns (such as migration, surfacing, nursing, breeding, feeding, or sheltering) to a point where such behavioral patterns are abandoned or significantly altered. These reactions would, however, be more of a concern if they were expected to last over 24 hours or be repeated in subsequent days. As mentioned previously, 65 ASW exercises with a duration of 1.5 hours are planned annually for the NWTRC. Additionally, vessels with hull-mounted active sonar are typically moving at speeds of 10–12 knots, which would make it unlikely that the same animal could remain in the immediate vicinity of the ship for the entire duration of the exercise. Animals are not expected to be exposed to MFAS/HFAS at levels or for a duration likely to result in a substantive response that would then be carried on for more than one day or on successive days. With the exception of SINKEXs, the planned explosive exercises are also of a short duration (1–

6 hours). Although explosive exercises may sometimes be conducted in the same general areas repeatedly, because of their short duration and the fact that they are in the open ocean and animals can easily move away makes it similarly unlikely that animals would be exposed for long, continuous amounts of time. Although SINKEXs may last for up to 48 hours, only 2 are planned annually, they are stationary and conducted in deep, open water (where fewer marine mammals would typically be expected to be randomly encountered), and they have a rigorous monitoring and shutdown protocol, all of which make it unlikely that individuals would be exposed to the exercise for extended periods or in consecutive days.

#### TTS

NMFS and the Navy have estimated that some individuals of some species of marine mammals may sustain some level of TTS from MFAS/HFAS. As mentioned previously, TTS can last from a few minutes to days, be of varying degree, and occur across various frequency bandwidths, all of which determine the severity of the impacts on the affected individual, which can range from minor to more severe. Table 8 indicates the estimated number of animals that might sustain TTS from exposure to MFAS/HFAS. The TTS sustained by an animal is primarily classified by three characteristics:

- **Frequency**—Available data (of mid-frequency hearing specialists exposed to mid to high frequency sounds—Southall *et al.*, 2007) suggest that most TTS occurs in the frequency range of the source up to one octave higher than the source (with the maximum TTS at ½ octave above). The more MF powerful sources used (the two hull-mounted MFAS sources and the DICASS sonobuoys) have center frequencies between 3.5 and 8 kHz and the other unidentified MF sources are, by definition, less than 10 kHz, which suggests that TTS induced by any of these MF sources would be in a frequency band somewhere between approximately 2 and 20 kHz. There are fewer hours of HF source use and the sounds would attenuate more quickly, plus they have lower source levels, but if an animal were to incur TTS from these sources, it would cover a higher frequency range (sources are between 20 and 100 kHz, which means that TTS could range up to 200 kHz, however, HF systems are typically used less frequently and for shorter time periods than surface ship and aircraft MF systems, so TTS from these sources is even less likely). TTS from explosives would be broadband. Tables 5a and 5b

summarize the vocalization data for each species.

- **Degree of the shift (*i.e.*, how many dB is the sensitivity of the hearing reduced by)**—generally, both the degree of TTS and the duration of TTS will be greater if the marine mammal is exposed to a higher level of energy (which would occur when the peak dB level is higher or the duration is longer). The threshold for the onset of TTS (> 6 dB) is 195 dB (SEL), which might be received at distances of up to 140 m from the most powerful MFAS source, the AN/SQS-53 (the maximum ranges to TTS from other sources would be less, as modeled for NWTRC). An animal would have to approach closer to the source or remain in the vicinity of the sound source appreciably longer to increase the received SEL, which would be difficult considering the watchstanders and the nominal speed of an active sonar vessel (10–12 knots). Of all TTS studies, some using exposures of almost an hour in duration or up to 217 SEL, most of the TTS induced was 15 dB or less, though Finneran *et al.*, (2007) induced 43 dB of TTS with a 64-sec exposure to a 20 kHz source (MFAS emits a 1-s ping 2 times/minute).

- **Duration of TTS (Recovery time)**—See above. Of all TTS laboratory studies, some using exposures of almost an hour in duration or up to 217 SEL, almost all recovered within 1 day (or less, often in minutes), though in one study (Finneran *et al.*, (2007)), recovery took 4 days.

Based on the range of degree and duration of TTS reportedly induced by exposures to non-pulse sounds of energy higher than that to which free-swimming marine mammals in the field are likely to be exposed during MFAS/HFAS training exercises in NWTRC, it is unlikely that marine mammals would ever sustain a TTS from MFAS that alters their sensitivity by more than 20 dB for more than a few days (and the majority would be far less severe because of short duration of the exercises, the speed of a typical vessel, and the fact that only 1 MFAS source is in use at once). Also, for the same reasons discussed in the Diel Cycle section, and because of the short distance within which animals would need to approach the sound source, it is unlikely that animals would be exposed to the levels necessary to induce TTS in subsequent time periods such that their recovery is impeded. Additionally (*see* Tables 5a and 5b), though the frequency range of TTS that marine mammals might sustain would overlap with some of the frequency ranges of their vocalization types, the frequency range of TTS from MFAS (the source from which TTS would more likely be

sustained because the higher source level and slower attenuation make it more likely that an animal would be exposed to a higher level) would not usually span the entire frequency range of one vocalization type, much less span all types of vocalizations. If impaired, marine mammals would typically be aware of their impairment and implement behaviors to compensate for it (see Communication Impairment Section), though these compensations may incur energetic costs.

#### Acoustic Masking or Communication Impairment

Table 5 is also informative regarding the nature of the masking or communication impairment that could potentially occur from MFAS (again, center frequencies are 3.5 and 7.5 kHz for the two types of hull-mounted active sonar). However, masking only occurs during the time of the signal (and potential secondary arrivals of indirect rays), versus TTS, which occurs continuously for its duration. Standard MFAS pings last on average one second and occur about once every 24–30 seconds for hull-mounted sources. For the sources for which we know the pulse length, most are significantly shorter than hull-mounted active sonar, on the order of several microseconds to 10s of microseconds. For hull-mounted active sonar, though some of the vocalizations that marine mammals make are less than one second long, there is only a 1 in 24 chance that they would occur exactly when the ping was received, and when vocalizations are longer than one second, only parts of them are masked. Alternately, when the pulses are only several microseconds long, the majority of most animals' vocalizations would not be masked. Masking effects from MFAS/HFAS are expected to be minimal. If masking or communication impairment were to occur briefly, it would be in the frequency range of MFAS, which overlaps with some marine mammal vocalizations, however, it would likely not mask the entirety of any particular vocalization or communication series because the pulse length, frequency, and duty cycle of the MFAS/HFAS signal does not perfectly mimic the characteristics of any marine mammal's vocalizations.

#### PTS, Injury, or Mortality

The Navy's model estimated that one Pacific harbor seal would be exposed to levels of MFAS/HFAS that would result in PTS. This estimate does not take into consideration either the mitigation measures, the likely avoidance behaviors of some of the animals

exposed, the distance from the sonar dome of a surface vessel within which an animal would have to be exposed to incur PTS (10 m), and the nominal speed of a surface vessel engaged in ASW exercises. NMFS believes that many marine mammals would deliberately avoid exposing themselves to the received levels of active sonar necessary to induce injury by moving away from or at least modifying their path to avoid a close approach. Additionally, in the unlikely event that an animal approaches the sonar vessel at a close distance, NMFS believes that the mitigation measures (*i.e.*, shutdown/powerdown zones for MFAS/HFAS) would typically ensure that animals would not be exposed to injurious levels of sound. As discussed previously, the Navy utilizes both aerial (when available) and passive acoustic monitoring (during all ASW exercises) in addition to watchstanders on vessels to detect marine mammals for mitigation implementation and indicated that they are capable of effectively monitoring a 1,000-meter (1,093-yd) safety zone at night using night vision goggles, infrared cameras, and passive acoustic monitoring.

If a marine mammal is able to approach a surface vessel within the distance necessary to incur PTS, the likely speed of the vessel (nominal 10–12 knots) would make it very difficult for the animal to remain in range long enough to accumulate enough energy to result in more than a mild case of PTS. As mentioned previously and in relation to TTS, the likely consequences to the health of an individual that incurs PTS can range from mild to more serious dependent upon the degree of PTS and the frequency band it is in, and many animals are able to compensate for the shift, although it may include energetic costs. While NMFS believes it is very unlikely that a harbor seal will incur PTS from exposure to MFAS/HFAS, seals may be difficult to detect at times and the Navy has requested authorization to take one by Level A Harassment and therefore, NMFS has considered this possibility in our analysis.

The Navy's model estimated that 14 total animals would be exposed to explosive detonations at levels that could result in injury (1 fin whale, 1 blue whale, 1 sperm whale, 3 Dall's porpoise, 1 harbor porpoise, 1 northern right whale dolphin, 2 short-beaked common dolphins, 2 northern elephant seals, 1 northern fur seal, and 1 Steller sea lion), and that 0 would be exposed to levels that would result in death—however, those estimates do not consider mitigation measures. Because

of the surveillance conducted prior to and during the exercises, the associated exclusion zones (see table 3 and the Mitigation section), and the distance within which the animal would have to be from the explosion, NMFS does not think it likely that any animals (especially these species, which are either large individuals or large gregarious groups) will be exposed to levels of sound or pressure from explosives that will result in injury. However, an authorization for Level A take of these individuals allows the Navy to remain in compliance in the unlikely event that animals go undetected and enter an area with injurious energy or pressure levels, and therefore NMFS has considered this possibility in our analysis. Injury incurred at these levels could (based on the data the thresholds are derived from) take the form of PTS (discussed above), tympanic membrane rupture, or slight lung injury.

As discussed previously, marine mammals could potentially respond to MFAS at a received level lower than the injury threshold in a manner that indirectly results in the animals stranding. The exact mechanisms of this potential response, behavioral or physiological, are not known. The naval exercises that have been associated with strandings in the past have typically had three or more vessels operating simultaneously, or in conjunction with one another, whereas the ASW exercises in the NWTRC only utilize one surface vessel sonar source at a time. Also, past sonar-associated strandings have involved constricted channels, semi-enclosed areas, and/or steep bathymetry—the sorts of features present in the Inshore area of the NWTRC; however, no ASW exercises will be conducted in the Inshore area. Last, even if the physical features that may contribute to a stranding (not all of which are known) were present in the NWTRC, it is unlikely that they would co-occur in time and space given the nature of the exercises, *e.g.*, low number and short duration of the planned exercises and no multi-vessel ASW exercises over an extended period of time.

#### 60 Years of Navy Training Exercises Using MFAS/HFAS in the NWTRC Range Complex

The Navy has been conducting MFAS/HFAS training exercises in the NWTRC Range Complex for over 60 years. Although monitoring specifically in conjunction with training exercises to determine the effects of active sonar and explosives on marine mammals has not been conducted by the Navy in the past

in the NWTRC and the symptoms indicative of potential acoustic trauma were not as well recognized prior to the mid-nineties, people have been collecting stranding data in the NWTRC Range Complex for approximately 30 years. Though not all dead or injured animals are expected to end up on the shore (some may be eaten or float out to sea), one might expect that if marine mammals were being harmed by the Navy training exercises with any regularity, more evidence would have been detected over the 30-yr period.

#### Species-Specific Analysis

In the discussions below, the “acoustic analysis” refers to the Navy's analysis, which includes the use of several models and other applicable calculations as described in the Estimates of Potential Marine Mammal Exposure section. The numbers predicted by the “acoustic analysis” are based on a uniform and stationary distribution of marine mammals and do not take into consideration the implementation of mitigation measures or potential avoidance behaviors of marine mammals, and therefore, are likely overestimates of potential exposures to the indicated thresholds (PTS, TTS, behavioral harassments).

#### Blue Whale (MMPA Depleted/ESA-Listed)

Acoustic analysis predicts that 19 exposures of blue whales to MFAS/HFAS or explosive detonations at sound or pressure levels likely to result in Level B harassment will occur. This estimate represents the total number of takes and not necessarily the number of individuals taken, as a single individual may be taken multiple times over the course of a year. These Level B takes are anticipated to be primarily in the form of behavioral disturbance as described in the Definition of Harassment: Level B Harassment section, although one TTS take is estimated from explosive exposure and proposed to be authorized. It is unlikely that any blue whales will incur TTS because of: (1) The distance within which they would have to approach the explosive source; and (2) the likelihood that Navy monitors would, during pre- or during exercises monitoring, detect these large animals prior to an approach within this distance and require a delay of the exercise. Navy lookouts will likely detect a group of blue whales given their large size, average group size (2–3), and pronounced vertical blow.

Additionally, the Navy's acoustic analysis predicted that 1 blue whale would be exposed to injurious levels of energy or pressure from exposure to

explosive detonations. Because of the lengthy pre-monitoring, the size of the animal, and the pronounced blow, NMFS anticipates that the Navy watchstanders would likely detect blue whales in most instances and implement the mitigation to avoid exposure at injurious levels. Although NMFS does not anticipate Level A take of this species to occur, the Navy has requested Level A take authorization for this species to ensure MMPA compliance and NMFS will analyze the possibility of these effects. NMFS is currently engaged in an internal Section 7 consultation under the ESA and the outcome of that consultation will further inform our final decision.

Blue whales in the NWTRC belong to the Eastern North Pacific stock, which may be increasing in number. The best population estimate for this stock is 1,866. Blue whales are known to feed in the southern part of the NWTRC in the summer. Relative to the population size, this activity is anticipated to result only in a limited number of level B harassment takes. The blue whale's large size and detectability makes it unlikely that these animals would be exposed to the higher energy or pressure expected to result in more severe effects either during their selected feeding times or otherwise. The NWTRC activities are not expected to occur in an area/time of specific importance for reproduction, feeding, or other known critical behaviors. Consequently, the activities are not expected to adversely impact rates of recruitment or survival of blue whales. Based on the general information contained in the Negligible Impact Analysis section and this stock-specific summary of the effects of the takes, NMFS has preliminarily determined that the Navy's specified activities will have a negligible impact on this stock.

#### Fin Whale (MMPA Depleted/ESA-Listed)

Acoustic analysis indicates that up to 122 exposures of fin whales to sound levels likely to result in Level B harassment (2 from TTS) may result from MFAS/HFAS. This estimate represents the total number of takes and not necessarily the number of individuals taken, as a single individual may be taken multiple times over the course of a year. These Level B takes are anticipated to be primarily in the form of behavioral harassment as described in the Definition of Harassment: Level B Harassment section. Although 2 of the modeled Level B Harassment takes were predicted to be in the form of TTS from MFAS/HFAS, NMFS believes it is unlikely that any fin whales will incur TTS because of the distance within

which they would have to approach the MFAS source (approximately 140 m for the most powerful source for TTS), the fact that many animals will likely avoid active sonar sources to some degree, and the likelihood that Navy monitors would detect these animals prior to an approach within this distance and implement active sonar powerdown or shutdown. Navy lookouts will likely detect a group of fin whales because of their large size, mean group size (3), and pronounced blow.

Acoustic analysis also predicted that 19 Level B Harassment takes from explosives would occur (12 sub-TTS, 7 TTS). For the same reasons listed above, NMFS anticipates that the Navy watchstanders would likely detect these species and implement the mitigation to avoid exposure. However, the range to TTS for a few of the larger explosives is larger than the associated exclusion zones for BOMBEX or SINKEX (see Table 3), and therefore NMFS anticipates that TTS takes of a few whales might result from explosive detonations.

Additionally, the Navy's acoustic analysis predicted that 1 fin whale would be exposed to injurious levels of energy or pressure. Because of the lengthy pre-monitoring, the size of the animal, and the pronounced blow, NMFS anticipates that the Navy watchstanders would likely detect fin whales in most instances and implement the mitigation to avoid exposure at injurious levels. Although NMFS does not anticipate Level A take of this species to occur, the Navy has requested Level A take authorization for this species to ensure MMPA compliance and NMFS will analyze the possibility of these effects. NMFS is currently engaged in an internal Section 7 consultation under the ESA and the outcome of that consultation will further inform our final decision.

Fin whales in the NWTRC belong to the California/Oregon/Washington stock. The best population estimate for this stock is 3454, which may be increasing. Relative to the population size, this activity is anticipated to result only in a limited number of level B harassment takes. The NWTRC activities are not expected to occur in an area/time of specific importance for reproductive, feeding, or other known critical behaviors. Consequently, the activities are not expected to adversely impact rates of recruitment or survival of fin whales. Based on the general information contained in the Negligible Impact Analysis section and this stock-specific summary of the effects of the takes, NMFS has preliminarily determined that the Navy's specified

activities will have a negligible impact on this stock.

#### *Sei Whale (MMPA Depleted/ESA-Listed)*

Acoustic analysis predicts that 1 sei whale will be behaviorally harassed by exposure to MFAS/HFAS. Sei whales in the NWTRC belong to the Eastern North Pacific stock. The best population estimate for this stock is 43, which may be increasing. The sei whales' large size and detectability makes it unlikely that these animals would be exposed to the higher energy or pressure expected to result in more severe effects. No areas of specific importance for reproduction or feeding of sei whales have been identified in the NWTRC. Relative to the population size, this activity is anticipated to result only in a limited number of level B harassment takes. The NWTRC activities are not expected to occur in an area/time of specific importance for reproductive, feeding, or other known critical behaviors. Consequently, the activities are not expected to adversely impact rates of recruitment or survival of sei whales. Based on the general information contained in the Negligible Impact Analysis section and this stock-specific summary of the effects of the takes, NMFS has preliminarily determined that the Navy's specified activities will have a negligible impact on this stock.

#### *Humpback Whale (MMPA Depleted/ESA-Listed)*

Acoustic analysis predicts that 13 humpback whales will be behaviorally harassed by exposure to MFAS/HFAS. No humpback whales are expected to be taken as a result of exposure to explosive detonations. Humpback whales in the NWTRC belong to the Eastern North Pacific stock. The best population estimate for this stock is 1396, which is increasing. The humpback whales' large size, gregarious nature, and detectability makes it unlikely that these animals would be exposed to the higher energy or pressure expected to result in more severe effects. No areas of specific importance for reproduction or feeding of humpbacks have been identified in the NWTRC. Relative to the population size, this activity is anticipated to result only in a limited number of level B harassment takes. The NWTRC activities are not expected to occur in an area/time of specific importance for reproductive, feeding, or other known critical behaviors. Consequently, the activities are not expected to adversely impact rates of recruitment or survival of humpback whales. Based on the general information contained in the Negligible Impact Analysis section and this stock-

specific summary of the effects of the takes, NMFS has preliminarily determined that the Navy's specified activities will have a negligible impact on this stock.

#### *Gray Whale*

Acoustic analysis predicts that 4 gray whales will be behaviorally harassed by exposure to MFAS/HFAS. No gray whales are expected to be taken as a result of exposure to explosive detonations. Gray whales in the NWTRC belong to the Eastern North Pacific stock, which is increasing in number. The best population estimate for this stock is 18178. The gray whales' large size and detectability makes it unlikely that these animals would be exposed to the higher energy or pressure expected to result in more severe effects. There is a well-defined north-south migratory path through the NWTRC and a known aggregation of gray whales (Pacific Coast Feeding Aggregation (PCFA)) that feeds along the Pacific coast between southeastern Alaska and southern California throughout the summer and fall. Relative to the population size, however, this activity is anticipated to result only in a very limited number of level B harassment takes and, consequently, the activities are not expected to adversely impact rates of recruitment or survival of gray whales. Based on the general information contained in the Negligible Impact Analysis section and this stock-specific summary of the effects of the takes, NMFS has preliminarily determined that the Navy's specified activities will have a negligible impact on this stock.

#### *Minke Whale*

Acoustic analysis predicts that 9 minke whales will be behaviorally harassed by exposure to MFAS/HFAS. No minke whales are expected to be taken as a result of exposure to explosive detonations. Minke whales in the NWTRC belong to the California/Oregon/Washington stock. The best population estimate for this stock is 898. The whales' size and detectability makes it unlikely that these animals would be exposed to the higher energy or pressure expected to result in more severe effects. Minke whales appear to establish home ranges in the Inshore Area and have been documented feeding in several areas within the Inshore Areas, however, no activities expected to result in the take of marine mammals will occur in the Inshore Area, so these behaviors should not be negatively impacted in that area. Relative to the population size, this activity is anticipated to result only in a limited number of level B harassment

takes. The NWTRC activities are not expected to occur in an area/time of specific importance for reproductive, feeding, or other known critical behaviors. Consequently, the activities are not expected to adversely impact rates of recruitment or survival of minke whales. Based on the general information contained in the Negligible Impact Analysis section and this stock-specific summary of the effects of the takes, NMFS has preliminarily determined that the Navy's specified activities will have a negligible impact on this stock.

#### *Sperm Whale (MMPA Depleted/ESA-Listed)*

Acoustic analysis predicts that up to 101 exposures of sperm whales to MFAS/HFAS at energy levels likely to result in Level B harassment may occur. This estimate represents the total number of Level B takes and not necessarily the number of individuals taken, as a single individual may be taken multiple times over the course of a year. These Level B takes are anticipated to primarily be in the form of behavioral disturbance as described in the Definition of Harassment: Level B Harassment section. Two of the modeled Level B Harassment takes were predicted to be in the form of TTS.

As indicated in Table 5, some (but not all) sperm whale vocalizations might overlap with the MFAS/HFAS TTS frequency range (2–20 kHz), which could potentially temporarily decrease an animal's sensitivity to the calls of conspecifics or returning echolocation signals. However, as noted previously, NMFS does not anticipate TTS of a long duration or severe degree to occur as a result of exposure to MFAS/HFAS. No sperm whales are predicted to be exposed to MFAS/HFAS sound levels associated with PTS or injury.

Acoustic analysis also predicted that 23 sperm whales would be exposed to sound or pressure from explosives at levels expected to result in Level B Harassment (10 from TTS). Additionally, the Navy's acoustic analysis predicted that 1 whale would be exposed to injurious levels of energy or pressure. Because of the lengthy pre-monitoring and the size of the animal, NMFS anticipates that the Navy watchstanders would likely detect sperm whales in most instances and implement the mitigation measures to avoid exposure at injurious levels. Although NMFS does not anticipate sperm whales to experience Level A Harassment, the Navy has requested Level A take authorization for this species to ensure MMPA compliance in the unlikely event that an animal is

exposed to injurious pressures from an explosive detonation and NMFS has analyzed the possibility of these effects. NMFS is currently engaged in an internal Section 7 consultation under the ESA and the outcome of that consultation will further inform our final decision. No areas of specific importance for reproduction or feeding of sperm whales have been identified in the NWTRC.

Relative to the population size, this activity is anticipated to result only in a limited number of Level B harassment takes. Additionally, the NWTRC activities are not expected to occur in an area/time of specific importance for reproductive, feeding, or other known critical behaviors. Consequently, the activities are not expected to adversely impact rates of recruitment or survival of sperm whales. Based on the general information contained in the Negligible Impact Analysis section and this stock-specific summary of the effects of the takes, NMFS has preliminarily determined that the Navy's specified activities will have a negligible impact on this stock.

#### *Killer Whale (Southern Resident Is MMPA Depleted/ESA-Listed)*

Due to the difficulty in determining particular stocks of killer whales in the wild, all stocks of killer whales were combined for modeling exposures, and therefore the modeled takes could be applied to any combination of the three stocks. When observed offshore, the determination of a particular whale to either a transient, offshore, or a resident is often difficult. For this reason, all killer whales are considered to be part of the southern resident stock for analysis of effect. The southern resident stock of killer whales is depleted under the MMPA and listed under the ESA.

Acoustic analysis predicts that 13 killer whales will be behaviorally harassed by exposure to MFAS/HFAS. The best population estimate for the southern resident killer whale stock is 89. There was an increase in the overall population from 2002–2007, however the population declined in 2008 with 85 southern resident killer whales counted. Two additional whales have been reported missing since the 2008 census count. The whale's size and detectability makes it unlikely that these animals would be exposed to the higher energy or pressure expected to result in more severe effects. As mentioned previously, there is designated critical habitat for southern resident killer whales in the Inshore Area; however, no sonar exercises and 4 very small detonations (2.5-lb), which are not expected to result in the take of marine

mammals, are planned to occur in the Inshore area annually. Southern resident killer whales spend the majority of their time in the Inshore Area from May/June through October/November, although they do make multi-day trips to the outer coast. Alternately, all of the Navy's sonar use is in the Offshore Area, occurring uniformly throughout the year.

Of note, the vocalizations of killer whales fall directly into the frequency range in which TTS would be incurred from the MFAS sources used in NWTRC for ASW exercises, so it is fortunate that the Navy is conducting limited ASW exercises in the NWTRC and that killer whales are predominantly situated in the Inshore area when ASW exercises are being conducted. Killer whales produce a wide-variety of clicks and whistles, but most social sounds are pulsed, with frequencies ranging from 0.5 to 25 kHz (dominant frequency range: 1 to 6 kHz) (Thomson and Richardson, 1995). Echolocation clicks indicate source levels ranging from 195 to 224 dB re 1 µPa-m peak-to-peak, dominant frequencies ranging from 20 to 60 kHz, and durations of about 0.1 sec (Au *et al.*, 2004). Source levels associated with social sounds have been calculated to range from 131 to 168 dB re 1 µPa-m and vary with vocalization type (Veirs, 2004).

Southern resident killer whales are very vocal, making calls during all types of behavioral states. Acoustic studies of resident killer whales in the Pacific Northwest have found that there are dialects in their highly stereotyped, repetitive discrete calls, which are group-specific and shared by all group members (Ford, 1991, 2002b). These dialects likely are used to maintain group identity and cohesion, and may serve as indicators of relatedness that help prevent inbreeding between closely related whales (Ford, 1991, 2002b). Dialects have been documented in northern Norway (Ford, 2002a) and southern Alaska killer whales populations (Yurk *et al.*, 2002) and likely occur in other regions.

Both behavioral and auditory brainstem response techniques indicate killer whales can hear a frequency range of 1 to 100 kHz and are most sensitive at 20 kHz. This is one the lowest maximum-sensitivity frequencies known among toothed whales (Szymanski *et al.*, 1999).

Population estimates for the Offshore and Transient killer whale stocks are 422 and 346, respectively. Relative to the population size, this activity is anticipated to result only in a limited number of level B harassment takes. The NWTRC activities are not expected to

occur in an area/time of specific importance for reproductive, feeding, or other known critical behaviors. Consequently, the activities are not expected to adversely impact rates of recruitment or survival of killer whales. Based on the general information contained in the Negligible Impact Analysis section and this stock-specific summary of the effects of the takes, NMFS has preliminarily determined that the Navy's specified activities will have a negligible impact on these stocks.

#### *Pygmy and Dwarf Sperm Whale*

Acoustic analysis predicts that 4 pygmy or dwarf sperm whales will be behaviorally harassed by exposure to MFAS/HFAS or explosives. Dwarf and pygmy sperm whales in the NWTRC belong to the California/Oregon/Washington stocks. There are no population estimates for these stocks, however, this activity is anticipated to result only in a very limited number of level B harassment takes. The NWTRC activities are not expected to occur in an area/time of specific importance for reproductive, feeding, or other known critical behaviors. Consequently, the activities are not expected to adversely impact rates of recruitment or survival of pygmy and dwarf sperm whales. Based on the general information contained in the Negligible Impact Analysis section and this stock-specific summary of the effects of the takes, NMFS has preliminarily determined that the Navy's specified activities will have a negligible impact on this stock.

#### *Beaked Whales*

Acoustic analysis predicts that 12 Baird's beaked whales, 14 Cuvier's beaked whales, and 14 Mesoplodont sp. will be taken by Level B harassment by exposure to MFAS/HFAS or explosives (1, 2, and 1 take each from explosives, relatively). Beaked whales in the NWTRC belong to the California/Oregon/Washington stocks. Census data and life history are too limited to suggest a population trend for individual species of Mesoplodont whales. Until better methods are developed for distinguishing the different mesoplodont species from one another, the management unit is defined to include all mesoplodont populations. The best population estimate for these stocks is 313, 2171, and 1024, respectively. Although no areas of specific importance for reproduction or feeding of beaked whales have been identified in the NWTRC, beaked whales are generally found in deep waters over the continental slope, oceanic seamounts, and areas with submarine escarpments (very seldom

over the continental shelf). Relative to the population size, this activity is anticipated to result only in a limited number of level B harassment takes. Consequently, the activities are not expected to adversely impact rates of recruitment or survival of beaked whales. Based on the general information contained in the Negligible Impact Analysis section and this stock-specific summary of the effects of the takes, NMFS has preliminarily determined that the Navy's specified activities will have a negligible impact on these stocks.

#### Short-Finned Pilot Whale

Acoustic analysis predicts that 2 pilot whales will be behaviorally harassed by exposure to MFAS/HFAS or explosives. Pilot whales are rare in the NWTRC and belong to the California/Oregon/Washington stocks. The best population estimate for these stocks is 245. Relative to the population size, this activity is anticipated to result only in a limited number of level B harassment takes. The NWTRC activities are not expected to occur in an area/time of specific importance for reproductive, feeding, or other known critical behaviors. Consequently, the activities are not expected to adversely impact rates of recruitment or survival of short-finned pilot whales. Based on the general information contained in the Negligible Impact Analysis section and this stock-specific summary of the effects of the takes, NMFS has preliminarily determined that the Navy's specified activities will have a negligible impact on these stocks.

#### Dolphins and Porpoises

The acoustic analysis predicts that the following numbers of Level B behavioral harassments of the associated species will occur: 4725 Dall's Porpoises, 119162 harbor porpoises, 1256 short-beaked common dolphin, 1256 short-beaked common dolphin, 734 northern right whale dolphin, 555 Pacific white-sided dolphin, and 40 striped dolphin. This estimate represents the total number of exposures and not necessarily the number of individuals exposed, as a single individual may be exposed multiple times over the course of a year. No bottlenose dolphins are expected to be taken based on the Navy's acoustic analysis.

Although a portion (147 Dall's Porpoises, 45 harbor porpoises, 42 short-beaked common dolphin, 18 northern right whale dolphin, 23 Pacific white-sided dolphin, and 1 striped dolphin) of the modeled Level B Harassment takes for all of these species is predicted to be in the form of TTS

from MFAS, NMFS believes it is unlikely that all of the individuals estimated will incur TTS because of the distance within which they would have to approach the active sonar source (approximately 140 m for the most powerful source), the fact that many animals will likely avoid active sonar sources to some degree, and the likelihood that Navy monitors would detect these animals prior to an approach within this distance and implement active sonar powerdown or shutdown. Navy lookouts will likely detect a group of dolphins given their relatively short dives, gregarious behavior, and large average group size. However, the Navy's proposed mitigation has a provision that allows the Navy to continue operation of MFAS if the animals are clearly bow-riding even after the Navy has initially maneuvered to try and avoid closing with the animals. Since these animals sometimes bow-ride they could potentially be exposed to levels associated with TTS as they approach or depart from bow-riding. As mentioned above and indicated in Table 5, some dolphin vocalizations might overlap with the MFAS/HFAS TTS frequency range (2–20 kHz), which could potentially temporarily decrease an animal's sensitivity to the calls of conspecifics or returning echolocation signals. However, as noted previously, NMFS does not anticipate TTS of a long duration or severe degree to occur as a result of exposure to MFAS/HFAS.

Acoustic analysis also predicted that 58 Dall's Porpoises, 5 harbor porpoises, 23 short-beaked common dolphin, 7 northern right whale dolphin, 3 Pacific white-sided dolphin, and 1 striped dolphin would be exposed to sound or pressure from explosives at levels expected to result in TTS. For the same reasons noted above, NMFS anticipates that the Navy watchstanders would likely detect these species and implement the mitigation to avoid exposure. However, the range to TTS for a few of the larger explosives is larger than the associated exclusion zones for BOMBEX, MISSILEX, or SINKEX (see Table 3), and therefore NMFS anticipates that TTS might not be entirely avoided during those exercises.

Acoustic analysis also predicted that 3 Dall's porpoise, a harbor porpoise, 2 short-beaked dolphin, and one northern right whale dolphin might be exposed to sound or pressure from explosive detonations that would result in PTS or injury. For the same reasons listed above (group size, dive and social behavior), NMFS anticipates that the Navy watchstanders would detect these species and implement the mitigation

measures to avoid exposure. In the case of all explosive exercises, the exclusion zones are 2–12 times larger than the estimated distance at which an animal would be exposed to injurious sounds or pressure waves.

No areas of specific importance for reproduction or feeding for dolphins have been identified in the NWTRC. Table 4 shows the estimated abundance of the affected stocks of dolphins and porpoise.

Of note, the number of harbor porpoises behaviorally harassed by exposure to MFAS/HFAS is higher than the other species (and, in fact, suggests that every member of the stock could potentially be taken by Level B harassment multiple times) because of the low Level B Harassment threshold, which essentially makes the ensounded area of effects significantly larger than for the other species. However, the fact that the threshold is a step function and not a curve (and assuming uniform density) means that the vast majority of the takes occur in the very lowest levels that exceed the threshold (approximately 80% of the takes are from exposures to 120 dB to 126 dB, and then approximately 80% of those takes are in the 126 dB to 132 dB range, etc.), which means that the anticipated effects are not expected to be severe.

Based on the general information contained in the Negligible Impact Analysis section and this stock-specific summary of the effects of the takes, NMFS has preliminarily determined that the Navy's specified activities will have a negligible impact on these stocks.

#### Pinnipeds

The Navy's acoustic analysis predicts that the following numbers of Level B harassments (from exposure to MFAS/HFAS or explosives) of the associated species will occur: 120 Steller sea lion, 1,365 Northern fur seal, 286 California sea lion, 378 northern elephant seals, and 586 Pacific harbor seal. This estimate represents the total number of exposures and not necessarily the number of individuals exposed, as a single individual may be exposed multiple times over the course of a year.

The model further predicted that of those Level B harassments listed above, 290 Pacific harbor seals and 1 northern fur seal, of the modeled Level B Harassment takes for all of these species were predicted to be in the form of TTS from MFAS exposure. NMFS believes it unlikely that northern fur seals, for which the TTS threshold is 206 dB SEL, will incur TTS because of the distance within which they would have to approach the MFAS source (approximately 37 m for the most

powerful source), the fact that many animals will likely avoid active sonar sources to some degree, and the likelihood that Navy monitors would detect these pinnipeds (because of the relatively short duration of their dives and their tendency to rest near the surface) prior to an approach within this distance and implement active sonar powerdown or shutdown. For harbor seals, more animals will be exposed to levels associated with TTS because of the lower threshold (183 SEL) that can be heard approximately 1,400 m from the highest powered AN/SQS–53C source. As mentioned above and indicated in Table 5, some pinniped vocalizations might overlap with the MFAS/HFAS TTS frequency range (2–20 kHz), which could potentially temporarily decrease an animal's sensitivity to the calls of conspecifics or returning echolocation signals.

However, as noted previously, NMFS does not anticipate TTS of a long duration or severe degree to occur as a result of exposure to MFAS/HFAS.

The acoustic analysis also predicted that 1 Pacific harbor seal would be exposed to MFAS/HFAS sound levels that would result in Level A Harassment (PTS—injury). However, because of the distance within which they would have to approach the MFAS source (approximately 50 m for the most powerful source) and the fact that animals will likely avoid active sonar sources to some degree, NMFS does not believe that any animals will incur PTS or be otherwise injured by MFAS/HFAS. However, the Navy has requested authorization for one Level A take for Pacific harbor seals, so NMFS is considering it in our analysis.

Acoustic analysis also predicted that of the total level B harassment takes listed in the first paragraph, 44 Northern fur seals, 1 California sea lion, and 29 northern elephant seals would be exposed to sound or pressure from explosives at levels expected to result in TTS. For the same reasons listed above, NMFS anticipates that the Navy watchstanders would likely detect the majority of the individual northern elephant seals, northern fur seals, and California sea lions and implement the mitigation measures to avoid exposure. However, the range to TTS for a few of the larger explosives is larger than the associated exclusion zones for BOMBEX, MISSILEX, or SINKEX (see Table 3), therefore NMFS anticipates that some TTS might not be avoided during those exercises. Acoustic analysis also predicted that 2 northern elephant seals and 1 northern fur seal might be exposed to levels of sound or pressure from explosives that would

result in PTS or other injury. NMFS anticipates that the Navy watchstanders would likely detect these species and implement the mitigation measures to avoid exposure. In the case of all explosive exercises, the exclusion zones are 2–12 times larger than the estimated distance at which an animal would be exposed to injurious sounds or pressure waves. However, an authorization for Level A take of these individuals allows the Navy to remain in compliance in the unlikely event that animals go undetected and enter an area with injurious energy or pressure levels, and therefore NMFS considers it in our analysis.

Steller sea lions are MMPA depleted and ESA-listed with a decreasing population and they have designated critical habitat within the NWTRC. A small number, compared to the population estimate, are predicted to be taken by behavioral disturbance, and one potentially by injury, although NMFS does not anticipate this. Of note, the critical habitat (3 haulouts) has limitations for air approach distances and by sea approach distances and the Navy abides by these restrictions.

Generally speaking, pinniped stocks in the NWTRC are thought to be stable or increasing. Based on the general information contained in the Negligible Impact Analysis section and this stock-specific summary of the effects of the takes, NMFS has preliminarily determined that the Navy's specified activities will have a negligible impact on these stocks.

#### Preliminary Determination

##### Negligible Impact

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat and dependent upon the implementation of the mitigation and monitoring measures, NMFS preliminarily finds that the total taking from Navy training exercises utilizing MFAS/HFAS and underwater explosives in the NWTRC will have a negligible impact on the affected species or stocks. NMFS has proposed regulations for these exercises that prescribe the means of effecting the least practicable adverse impact on marine mammals and their habitat and set forth requirements pertaining to the monitoring and reporting of that taking.

##### Subsistence Harvest of Marine Mammals

NMFS has preliminarily determined that the issuance of 5-year regulations and subsequent LOAs for Navy training exercises in the NWTRC would not have

an unmitigable adverse impact on the availability of the affected species or stocks for subsistence use for any Alaska Natives or Tribal member in the Northwest (e.g., Oregon, Washington, and northern California). Specifically, the Navy's exercises would not affect any Alaskan Native because the activities will be limited to waters off the coast of Washington, Oregon, and northern California, areas outside of traditional Alaskan Native hunting grounds. Moreover, there are no cooperative agreements in force under the MMPA or Whaling Convention Act that would allow for the subsistence harvest of marine mammals in waters off the Northwest coast. Consequently, this action would not result in an unmitigable adverse impact on the availability of the affected species or stocks for taking for subsistence uses in the Northwest.

As noted above, NMFS will consider all comments, suggestions and/or concerns submitted by the public during the proposed rulemaking comment period to help inform our final decision, particularly with respect to our negligible impact determination and the proposed mitigation and monitoring measures.

#### ESA

There are seven marine mammal species and one sea turtle species that are listed as endangered under the ESA with confirmed or possible occurrence in the study area: Humpback whale, sei whale, fin whale, blue whale, sperm whale, southern resident killer whale, Steller sea lion, and the leatherback sea turtle. The Navy has begun consultation with NMFS pursuant to section 7 of the ESA, and NMFS will also consult internally on the issuance of an LOA under section 101(a)(5)(A) of the MMPA for NWTRC activities. Consultation will be concluded prior to a determination on the issuance of the final rule and an LOA.

#### NEPA

NMFS has participated as a cooperating agency on the Navy's Draft Environmental Impact Statement (DEIS) for the NWTRC, which was published on December 29, 2008. The Navy's DEIS is posted on NMFS' Web site: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications>. NMFS intends to adopt the Navy's Final EIS (FEIS), if adequate and appropriate. Currently, we believe that the adoption of the Navy's FEIS will allow NMFS to meet its responsibilities under NEPA for the issuance of an LOA for NWTRC. If the Navy's FEIS is deemed not to be adequate, NMFS would supplement the

existing analysis to ensure that we comply with NEPA prior to the issuance of the final rule or LOA.

#### Classification

This action does not contain any collection of information requirements for purposes of the Paperwork Reduction Act.

The Office of Management and Budget has determined that this proposed rule is not significant for purposes of Executive Order 12866.

Pursuant to the Regulatory Flexibility Act, the Chief Counsel for Regulation of the Department of Commerce has certified to the Chief Counsel for Advocacy of the Small Business Administration that this proposed rule, if adopted, would not have a significant economic impact on a substantial number of small entities. The Regulatory Flexibility Act requires Federal agencies to prepare an analysis of a rule's impact on small entities whenever the agency is required to publish a notice of proposed rulemaking. However, a Federal agency may certify, pursuant to 5 U.S.C. 605(b), that the action will not have a significant economic impact on a substantial number of small entities. The Navy is the sole entity that will be affected by this rulemaking, not a small governmental jurisdiction, small organization or small business, as defined by the Regulatory Flexibility Act (RFA). Any requirements imposed by a Letter of Authorization issued pursuant to these regulations, and any monitoring or reporting requirements imposed by these regulations, will be applicable only to the Navy. NMFS does not expect the issuance of these regulations or the associated LOAs to result in any impacts to small entities pursuant to the RFA. Because this action, if adopted, would directly affect the Navy and not a small entity, NMFS concludes the action would not result in a significant economic impact on a substantial number of small entities.

Dated: July 2, 2009.

James Balsiger,

Acting Assistant Administrator for Fisheries, National Marine Fisheries Service.

For reasons set forth in the preamble, 50 CFR part 218 is proposed to be amended as follows:

#### PART 218—REGULATIONS GOVERNING THE TAKING AND IMPORTING OF MARINE MAMMALS

1. The authority citation for part 218 continues to read as follows:

Authority: 16 U.S.C. 1361 *et seq.*

2. Subpart M is added to part 218 to read as follows:

#### Subpart M—Taking and Importing Marine Mammals; U.S. Navy's Northwest Training Range Complex (NWTRC)

- Sec.  
218.110 Specified activity and specified geographical area.  
218.111 [Reserved]  
218.112 Permissible methods of taking.  
218.113 Prohibitions.  
218.114 Mitigation.  
218.115 Requirements for monitoring and reporting.  
218.116 Applications for Letters of Authorization.  
218.117 Letters of Authorization.  
218.118 Renewal of Letters of Authorization and adaptive management.  
218.119 Modifications to Letters of Authorization.

#### Subpart M—Taking and Importing Marine Mammals; U.S. Navy's Northwest Training Range Complex (NWTRC)

##### § 218.110 Specified activity and specified geographical area.

(a) Regulations in this subpart apply only to the U.S. Navy for the taking of marine mammals that occurs in the area outlined in paragraph (b) of this section and that occur incidental to the activities described in paragraph (c) of this section.

(b) The taking of marine mammals by the Navy is only authorized if it occurs within the Offshore area of the Northwest Training Range Complex (NWTRC) (as depicted in Figure ES–1 in the Navy's Draft Environmental Impact Statement for NWTRC), which is bounded by 48°30' N. lat.; 130°00' W. long.; 40°00' N. lat.; and on the east by 124°00' W. long or by the shoreline where the shoreline extends west of 124°00' W. long (excluding the Strait of Juan de Fuca (east of 124°40' W. long), which is not included in the Offshore area).

(c) The taking of marine mammals by the Navy is only authorized if it occurs incidental to the following activities within the designated amounts of use:

- (1) The use of the following mid-frequency active sonar (MFAS) sources, high frequency active sonar (HFAS) sources for U.S. Navy anti-submarine warfare (ASW) and mine warfare (MIW) training, in the amounts and in the locations indicated below (±10%):  
(i) AN/SQS-53 (hull-mounted active sonar)—up to 215 hours over the course of 5 years (an average of 43 hours per year);

(ii) AN/SQS-56 (hull-mounted active sonar)—up to 330 hours over the course of 5 years (an average of 65 hours per year);

(iii) SSQ-62 (Directional Command Activated Sonobuoy System (DICASS) sonobuoys)—up to 4430 sonobuoys over the course of 5 years (an average of 886 sonobuoys per year)

(iv) MK-48 (heavyweight torpedoes)—up to 10 torpedoes over the course of 5 years (an average of 2 torpedoes per year);

(v) AN/BQS-15 (mine detection and submarine navigational sonar)—up to 210 hours over the course of 5 years (an average of 42 hours per year);

(vi) AN/SSQ-125 (AEER)—up to 745 buoys deployed over the course of 5 years (total combined with the AN/SSQ-110A (IEER)) (an average of 149 per year);

(vii) Range Pingers—up to 900 hours over the course of 5 years (an average of 180 hours per year); and

(viii) PUTR Uplink—up to 750 hours over the course of 5 years (an average of 150 hours per year).

(2) The detonation of the underwater explosives indicated in this paragraph (c)(2)(i) conducted as part of the training events indicated in this paragraph (c)(2)(ii):

##### (i) Underwater Explosives

- (A) 5" Naval Gunfire (9.5 lbs);  
(B) 76 mm rounds (1.6 lbs);  
(C) Maverick (78.5 lbs);  
(D) Harpoon (448 lbs);  
(E) MK-82 (238 lbs);  
(F) MK-48 (851 lbs);  
(G) Demolition Charges (2.5 lbs);  
(H) AN/SSQ-110A (IEER explosive sonobuoy—5 lbs);  
(I) HARM;  
(J) Hellfire;  
(K) SLAM; and  
(L) GBU 10, 12, and 16.

##### (ii) Training Events

(A) Surface-to-surface Gunnery Exercises (S-S GUNEX)—up to 1700 exercises over the course of 5 years (an average of 340 per year).

(B) Bombing Exercises (BOMBEX)—up to 150 exercises over the course of 5 years (an average of 30 per year).

(C) Sinking Exercises (SINKEX)—up to 10 exercises over the course of 5 years (an average of 2 per year).

(D) Extended Echo Ranging and Improved Extended Echo Ranging (EER/IEER) Systems—up to 60 exercises (total combined with the AN/SSQ-125A (AEER)) over the course of 5 years (an average of 12 per year).

##### § 218.111 [Reserved]

##### § 218.112 Permissible methods of taking.

(a) Under Letters of Authorization issued pursuant to §§ 216.106 and 218.117 of this chapter, the Holder of

the Letter of Authorization (hereinafter "Navy") may incidentally, but not intentionally, take marine mammals within the area described in § 218.110(b), provided the activity is in compliance with all terms, conditions, and requirements of these regulations and the appropriate Letter of Authorization.

(b) The activities identified in § 218.110(c) must be conducted in a manner that minimizes, to the greatest extent practicable, any adverse impacts on marine mammals and their habitat.

(c) The incidental take of marine mammals under the activities identified in § 218.110(c) is limited to the following species, by the indicated method of take and the indicated number of times (estimated based on the authorized amounts of sound source operation):

(1) Level B Harassment (±10% of the Take Estimate Indicated Below)

##### (i) Mysticetes

(A) Humpback whale (*Megaptera novaeangliae*)—75 (an average of 15 annually);

(B) Fin whale (*Balaenoptera physalus*)—720 (an average of 144 annually);

(C) Blue whale (*Balaenoptera musculus*)—95 (an average of 19 annually);

(D) Sei whale (*Balaenoptera borealis*)—5 (an average of 1 annually);

(E) Minke whale (*Balaenoptera acutorostrata*)—45 (an average of 9 annually); and

(F) Gray whale (*Eschrichtius robustus*)—20 (an average of 4 annually).

##### (ii) Odontocetes

(A) Sperm whales (*Physeter macrocephalus*)—635 (an average of 127 annually);

(B) Killer whale (*Orcinus orca*)—70 (an average of 14 annually);

(C) Pygmy or dwarf sperm whales (*Kogia breviceps* or *Kogia sima*)—20 (an average of 94 annually);

(D) Mesoplodont beaked whales—75 (an average of 15 annually);

(E) Cuvier's beaked whales (*Ziphius cavirostris*)—70 (an average of 14 annually);

(F) Baird's beaked whales (*Berardius bairdii*)—65 (an average of 13 annually);

(G) Short-finned pilot whale (*Globicephala macrorhynchus*)—10 (an average of 2 annually);

(H) Striped dolphin (*Stenella coeruleoalba*)—400 (an average of 40 annually);

(I) Short-beaked common dolphin (*Globicephala macrorhynchus*)—6280 (an average of 1256 annually);

(J) Risso's dolphin (*Grampus griseus*)—500 (an average of 100 annually);

(K) Northern right whale dolphin (*Lissodelphis borealis*)—3705 (an average of 741 annually);

(L) Pacific white-sided dolphin (*Lagenorhynchus obliquidens*)—2855 (an average of 571 annually);

(M) Dall's porpoise (*Phocoenoides dalli*)—23780 (an average of 4752 annually); and

(N) Harbor Porpoise (*Phocoena phocoena*)—596370 (an average of 119274 annually).

##### (ii) Pinnipeds

(A) Northern elephant seal (*Mirounga angustirostris*)—1890 (an average of 378 annually);

(B) Pacific harbor seal (*Phoca vitulina*)—2930 (an average of 586 annually);

(C) California sea lion (*Zalophus californianus*)—1430 (an average of 286 annually);

(D) Northern fur seal (*Callorhinus ursinus*)—6825 (an average of 1365 annually); and

(E) Steller sea lion (*Eumetopias jubatus*)—600 (an average of 120 annually).

##### (2) Level A Harassment

(i) Fin whale—5 (an average of 1 annually);

(ii) Blue Whale—5 (an average of 1 annually);

(iii) Sperm whale—5 (an average of 1 annually);

(iv) Dall's Porpoise—15 (an average of 3 annually);

(v) Harbor Porpoise—5 (an average of 1 annually);

(vi) Northern right whale dolphin—5 (an average of 1 annually);

(vii) Short-beaked common dolphin—10 (an average of 2 annually);

(viii) Northern elephant seal—10 (an average of 2 annually);

(ix) Pacific harbor seal—5 (an average of 1 annually); and

(x) Northern fur seal—5 (an average of 1 annually).

##### § 218.113 Prohibitions.

No person in connection with the activities described in § 218.110 may:

(a) Take any marine mammal not specified in § 218.112(c);

(b) Take any marine mammal specified in § 218.112(c) other than by incidental take as specified in §§ 218.112(c)(1) and (c)(2);

(c) Take a marine mammal specified in § 218.112(c) if such taking results in more than a negligible impact on the species or stocks of such marine mammal; or

(d) Violate, or fail to comply with, the terms, conditions, and requirements of these regulations or a Letter of Authorization issued under §§ 216.106 and 218.117 of this chapter.

##### § 218.114 Mitigation.

(a) When conducting training and utilizing the sound sources or explosives identified in § 218.110(c), the mitigation measures contained in the Letter of Authorization issued under §§ 216.106 and 218.117 of this chapter must be implemented. These mitigation measures include, but are not limited to:

(1) Navy's General Maritime Measures for All Training at Sea

(i) Personnel Training (for All Training Types)

(A) All commanding officers (COs), executive officers (XOs), lookouts, Officers of the Deck (OODs), junior OODs (JOODs), maritime patrol aircraft aircrews, and Anti-submarine Warfare (ASW)/Mine Warfare (MIW) helicopter crews shall complete the NMFS-approved Marine Species Awareness Training (MSAT) by viewing the U.S. Navy MSAT digital versatile disk (DVD). All bridge lookouts shall complete both parts one and two of the MSAT; part two is optional for other personnel.

(B) Navy lookouts shall undertake extensive training in order to qualify as a watchstander in accordance with the Lookout Training Handbook (Naval Education and Training Command [NAVEDTRA] 12968-D).

(C) Lookout training shall include on-the-job instruction under the supervision of a qualified, experienced lookout. Following successful completion of this supervised training period, lookouts shall complete the Personal Qualification Standard Program, certifying that they have demonstrated the necessary skills (such as detection and reporting of partially submerged objects). Personnel being trained as lookouts can be counted among required lookouts as long as supervisors monitor their progress and performance.

(D) Lookouts shall be trained in the most effective means to ensure quick and effective communication within the command structure in order to facilitate implementation of protective measures if marine species are spotted.

(ii) Operating Procedures and Collision Avoidance

(A) Prior to major exercises, a Letter of Instruction, Mitigation Measures Message or Environmental Annex to the Operational Order shall be issued to further disseminate the personnel

training requirement and general marine species protective measures.

(B) COs shall make use of marine species detection cues and information to limit interaction with marine species to the maximum extent possible consistent with safety of the ship.

(C) While underway, surface vessels shall have at least two lookouts with binoculars; surfaced submarines shall have at least one lookout with binoculars. Lookouts already posted for safety of navigation and man-overboard precautions may be used to fill this requirement. As part of their regular duties, lookouts will watch for and report to the OOD the presence of marine mammals.

(D) On surface vessels equipped with a multi-function active sensor, pedestal mounted "Big Eye" (20x110) binoculars shall be properly installed and in good working order to assist in the detection of marine mammals in the vicinity of the vessel.

(E) Personnel on lookout shall employ visual search procedures employing a scanning methodology in accordance with the Lookout Training Handbook (NAVEDTRA 12968-D).

(F) After sunset and prior to sunrise, lookouts shall employ Night Lookouts Techniques in accordance with the Lookout Training Handbook (NAVEDTRA 12968-D).

(G) While in transit, naval vessels shall be alert at all times, use extreme caution, and proceed at a "safe speed" so that the vessel can take proper and effective action to avoid a collision with any marine animal and can be stopped within a distance appropriate to the prevailing circumstances and conditions.

(H) When marine mammals have been sighted in the area, Navy vessels shall increase vigilance and take reasonable and practicable actions to avoid collisions and activities that might result in close interaction of naval assets and marine mammals. Actions may include changing speed and/or direction and are dictated by environmental and other conditions (e.g., safety, weather).

(I) Navy aircraft participating in exercises at sea shall conduct and maintain, when operationally feasible and safe, surveillance for marine mammals as long as it does not violate safety constraints or interfere with the accomplishment of primary operational duties. Marine mammal detections shall be immediately reported to assigned Aircraft Control Unit for further dissemination to ships in the vicinity of the marine species as appropriate when it is reasonable to conclude that the course of the ship will likely result in

a closing of the distance to the detected marine mammal.

(2) Navy's Measures for MFAS Operations

(i) Personnel Training (for MFAS Operations)

(A) All lookouts onboard platforms involved in ASW training events shall review the NMFS-approved Marine Species Awareness Training material prior to use of mid-frequency active sonar.

(B) All COs, XOs, and officers standing watch on the bridge shall have reviewed the Marine Species Awareness Training material prior to a training event employing the use of mid-frequency active sonar.

(C) Navy lookouts shall undertake extensive training in order to qualify as a watchstander in accordance with the Lookout Training Handbook (Naval Educational Training [NAVEDTRA], 12968-D).

(D) Lookout training shall include on-the-job instruction under the supervision of a qualified, experienced watchstander. Following successful completion of this supervised training period, lookouts shall complete the Personal Qualification Standard program, certifying that they have demonstrated the necessary skills (such as detection and reporting of partially submerged objects). This does not forbid personnel being trained as lookouts from being counted as those listed in previous measures so long as supervisors monitor their progress and performance.

(E) Lookouts shall be trained in the most effective means to ensure quick and effective communication within the command structure in order to facilitate implementation of mitigation measures if marine species are spotted.

(ii) Lookout and Watchstander Responsibilities

(A) On the bridge of surface ships, there shall always be at least three people on watch whose duties include observing the water surface around the vessel.

(B) All surface ships participating in ASW training events shall, in addition to the three personnel on watch noted previously, have at all times during the exercise at least two additional personnel on watch as marine mammal lookouts.

(C) After sunset and prior to sunrise, lookouts shall employ Night Lookouts Techniques in accordance with the Lookout Training Handbook.

(D) Personnel on lookout shall be responsible for reporting all objects or

anomalies sighted in the water (regardless of the distance from the vessel) to the Officer of the Deck, since any object or disturbance (e.g., trash, periscope, surface disturbance, discoloration) in the water may be indicative of a threat to the vessel and its crew or indicative of a marine species that may need to be avoided as warranted. Personnel on lookout and officers on watch on the bridge will have at least one set of binoculars available for each person to aid in the detection of marine mammals.

(iii) Operating Procedures (for MFAS Operations)

(A) All personnel engaged in passive acoustic sonar operation (including aircraft, surface ships, or submarines) shall monitor for marine mammal vocalizations and report the detection of any marine mammal to the appropriate watch station for dissemination and appropriate action.

(B) During mid-frequency active sonar operations, personnel shall utilize all available sensor and optical systems (such as night vision goggles) to aid in the detection of marine mammals.

(C) Navy aircraft participating in exercises at sea shall conduct and maintain, when operationally feasible and safe, surveillance for marine species of concern as long as it does not violate safety constraints or interfere with the accomplishment of primary operational duties.

(D) Aircraft with deployed sonobuoys shall use only the passive capability of sonobuoys when marine mammals are detected within 200 yds (183 m) of the sonobuoy.

(E) Marine mammal detections shall be immediately reported to assigned Aircraft Control Unit for further dissemination to ships in the vicinity of the marine species as appropriate where it is reasonable to conclude that the course of the ship will likely result in a closing of the distance to the detected marine mammal.

(F) *Safety Zones*—When marine mammals are detected by any means (aircraft, shipboard lookout, or acoustically) within or closing to inside 1,000 yds (914 m) of the sonar dome (the bow), the ship or submarine shall limit active transmission levels to at least 6 decibels (dB) below normal operating levels.

(1) Ships and submarines shall continue to limit maximum transmission levels by this 6-dB factor until the animal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yds (1829 m) beyond the location of the last detection.

(2) Should a marine mammal be detected within or closing to inside 500 yds (457 m) of the sonar dome, active sonar transmissions shall be limited to at least 10 dB below the equipment's normal operating level. Ships and submarines shall continue to limit maximum ping levels by this 10-dB factor until the animal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yds (1829 m) beyond the location of the last detection.

(3) Should the marine mammal be detected within or closing to inside 200 yds (183 m) of the sonar dome, active sonar transmissions shall cease. Sonar shall not resume until the animal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yds (1829 m) beyond the location of the last detection.

(4) Special conditions applicable for dolphins and porpoises only: If, after conducting an initial maneuver to avoid close quarters with dolphins or porpoises, the OOD concludes that dolphins or porpoises are deliberately closing to ride the vessel's bow wave, no further mitigation actions are necessary while the dolphins or porpoises continue to exhibit bow wave riding behavior.

(5) If the need for power-down should arise as detailed in "Safety Zones" above, the Navy shall follow the requirements as though they were operating at 235 dB—the normal operating level (i.e., the first power-down will be to 229 dB, regardless of what level above 235 dB active sonar was being operated).

(G) Prior to start up or restart of active sonar, operators will check that the Safety Zone radius around the sound source is clear of marine mammals.

(H) *Active sonar levels (generally)*—Navy shall operate active sonar at the lowest practicable level, not to exceed 235 dB, except as required to meet tactical training objectives.

(3) Navy's Measures for Underwater Detonations

(i) Surface-to-Surface Gunnery (Non-Explosive Rounds)

(A) A 200-yd (183 m) radius buffer zone shall be established around the intended target.

(B) From the intended firing position, trained lookouts shall survey the buffer zone for marine mammals prior to commencement and during the exercise as long as practicable.

(C) If applicable, target towing vessels shall maintain a lookout. If a marine mammal is sighted in the vicinity of the

exercise, the tow vessel shall immediately notify the firing vessel in order to secure gunnery firing until the area is clear.

(D) The exercise shall be conducted only when the buffer zone is visible and marine mammals are not detected within the target area and the buffer zone.

(ii) Surface-to-Air Gunnery (Explosive and Non-Explosive Rounds)

(A) Vessels shall orient the geometry of gunnery exercises in order to prevent debris from falling in the area of sighted marine mammals.

(B) Vessels will expedite the recovery of any parachute deploying aerial targets to reduce the potential for entanglement of marine mammals.

(C) Target towing aircraft shall maintain a lookout. If a marine mammal is sighted in the vicinity of the exercise, the tow aircraft shall immediately notify the firing vessel in order to secure gunnery firing until the area is clear.

(iii) Air-to-Surface At-Sea Bombing Exercises (Explosive and Non-Explosive)

(A) If surface vessels are involved, trained lookouts shall survey for floating kelp and marine mammals. Ordnance shall not be targeted to impact within 1,000 yds (914 m) of known or observed floating kelp or marine mammals.

(B) A 1,000 yd (914-m) radius buffer zone shall be established around the intended target.

(C) Aircraft shall visually survey the target and buffer zone for marine mammals prior to and during the exercise. The survey of the impact area shall be made by flying at 1,500 ft (457 m) or lower, if safe to do so, and at the slowest safe speed. Release of ordnance through cloud cover is prohibited; aircraft must be able to actually see ordnance impact areas. Survey aircraft should employ most effective search tactics and capabilities.

(D) The exercise will be conducted only if marine mammals are not visible within the buffer zone.

(iv) Air-to-Surface Missile Exercises (Explosive and Non-Explosive)

(A) Ordnance shall not be targeted to impact within 1,800 yds (1646 m) of observed floating kelp.

(B) Aircraft shall visually survey the target area for marine mammals. Visual inspection of the target area shall be made by flying at 1,500 (457 m) feet or lower, if safe to do so, and at slowest safe speed. Firing or range clearance aircraft must be able to actually see ordnance impact areas. Explosive ordnance shall not be targeted to impact

within 1,800 yds (1646 m) of sighted marine mammals.

(v) Demolitions, Mine Warfare, and Mine Countermeasures (Up to a 2.5-lb Charge)

(A) *Exclusion Zones*—All Mine Warfare and Mine Countermeasures Operations involving the use of explosive charges must include exclusion zones for marine mammals to prevent physical and/or acoustic effects to those species. These exclusion zones shall extend in a 700-yard arc radius around the detonation site.

(B) *Pre-Exercise Surveys*—For Demolition and Ship Mine Countermeasures Operations, pre-exercise surveys shall be conducted within 30 minutes prior to the commencement of the scheduled explosive event. The survey may be conducted from the surface, by divers, and/or from the air, and personnel shall be alert to the presence of any marine mammal. Should such an animal be present within the survey area, the explosive event shall not be started until the animal voluntarily leaves the area. The Navy will ensure the area is clear of marine mammals for a full 30 minutes prior to initiating the explosive event. Personnel will record any marine mammal observations during the exercise as well as measures taken if species are detected within the exclusion zone.

(C) *Post-Exercise Surveys*—Surveys within the same radius shall also be conducted within 30 minutes after the completion of the explosive event.

(D) *Reporting*—If there is evidence that a marine mammal may have been stranded, injured or killed by the action, Navy training activities shall be immediately suspended and the situation immediately reported by the participating unit to the Officer in Charge of the Exercise (OCE), who will follow Navy procedures for reporting the incident to the Commander, Pacific Fleet, Commander, Navy Region Northwest, Environmental Director, and the chain of command. The situation shall also be reported to NMFS (see Stranding Plan for details).

(vi) Sink Exercise

(A) All weapons firing shall be conducted during the period 1 hour after official sunrise to 30 minutes before official sunset.

(B) An exclusion zone with a radius of 1.0 nm (1.9 km) would be established around each target. This exclusion zone is based on calculations using a 990-lb (450-kg) H6 net explosive weight high explosive source detonated 5 ft (1.5 m) below the surface of the water, which

yields a distance of 0.85 nm (1.57 km) (cold season) and 0.89 nm (1.65 km) (warm season) beyond which the received level is below the 182 decibels (dB) re: 1 micropascal squared-seconds ( $\mu\text{Pa}^2\text{-s}$ ) threshold established for the WINSTON S. CHURCHILL (DDG 81) shock trials (U.S. Navy, 2001). An additional buffer of 0.5 nm (0.9 km) would be added to account for errors, target drift, and animal movements. Additionally, a safety zone, which would extend beyond the buffer zone by an additional 0.5 nm (0.9 km), would be surveyed. Together, the zones extend out 2 nm (3.7 km) from the target.

(C) A series of surveillance overflights shall be conducted within the exclusion and the safety zones, prior to and during the exercise, when feasible. Survey protocol shall be as follows:

(1) Overflights within the exclusion zone shall be conducted in a manner that optimizes the surface area of the water observed. This may be accomplished through the use of the Navy's Search and Rescue Tactical Aid, which provides the best search altitude, ground speed, and track spacing for the discovery of small, possibly dark objects in the water based on the environmental conditions of the day. These environmental conditions include the angle of sun inclination, amount of daylight, cloud cover, visibility, and sea state.

(2) All visual surveillance activities shall be conducted by Navy personnel trained in visual surveillance. At least one member of the mitigation team would have completed the Navy's marine mammal training program for lookouts.

(3) In addition to the overflights, the exclusion zone shall be monitored by passive acoustic means, when assets are available. This passive acoustic monitoring would be maintained throughout the exercise. Potential assets include sonobuoys, which can be utilized to detect any vocalizing marine mammals (particularly sperm whales) in the vicinity of the exercise. The sonobuoys shall be re-seeded as necessary throughout the exercise. Additionally, passive sonar onboard submarines may be utilized to detect any vocalizing marine mammals in the area. The OCE would be informed of any aural detection of marine mammals and would include this information in the determination of when it is safe to commence the exercise.

(4) On each day of the exercise, aerial surveillance of the exclusion and safety zones shall commence 2 hours prior to the first firing.

(5) The results of all visual, aerial, and acoustic searches shall be reported

immediately to the OCE. No weapons launches or firing may commence until the OCE declares the safety and exclusion zones free of marine mammals.

(6) If a marine mammal observed within the exclusion zone is diving, firing would be delayed until the animal is re-sighted outside the exclusion zone, or 30 minutes have elapsed. After 30 minutes, if the animal has not been re-sighted it would be assumed to have left the exclusion zone. The OCE would determine if the listed species is in danger of being adversely affected by commencement of the exercise.

(7) During breaks in the exercise of 30 minutes or more, the exclusion zone shall again be surveyed for any marine mammal. If marine mammals are sighted within the exclusion zone, the OCE shall be notified, and the procedure described above would be followed.

(8) Upon sinking of the vessel, a final surveillance of the exclusion zone shall be monitored for 2 hours, or until sunset, to verify that no marine mammals were harmed.

(D) Aerial surveillance shall be conducted using helicopters or other aircraft based on necessity and availability. The Navy has several types of aircraft capable of performing this task; however, not all types are available for every exercise. For each exercise, the available asset best suited for identifying objects on and near the surface of the ocean would be used. These aircraft would be capable of flying at the slow safe speeds necessary to enable viewing of marine vertebrates with unobstructed, or minimally obstructed, downward and outward visibility. The exclusion and safety zone surveys may be cancelled in the event that a mechanical problem, emergency search and rescue, or other similar and unexpected event preempts the use of one of the aircraft onsite for the exercise.

(E) Every attempt would be made to conduct the exercise in sea states that are ideal for marine mammal sighting, Beaufort Sea State 3 or less. In the event of a 4 or above, survey efforts shall be increased within the zones. This shall be accomplished through the use of an additional aircraft, if available, and conducting tight search patterns.

(F) The exercise shall not be conducted unless the exclusion zone could be adequately monitored visually.

(G) In the event that any marine mammals are observed to be harmed in the area, a detailed description of the animal shall be taken, the location noted, and if possible, photos taken.

This information shall be provided to

NMFS via the Navy's regional environmental coordinator for purposes of identification (see the Stranding Plan for detail).

(H) An after action report detailing the exercise's time line, the time the surveys commenced and terminated, amount, and types of all ordnance expended, and the results of survey efforts for each event shall be submitted to NMFS.

(vii) Extended Echo Ranging/Improved Extended Echo Ranging (EER/IEER)

(A) Crews shall conduct visual reconnaissance of the drop area prior to laying their intended sonobuoy pattern. This search shall be conducted at an altitude below 457 m (500 yd) at a slow speed, if operationally feasible and weather conditions permit. In dual aircraft operations, crews are allowed to conduct coordinated area clearances.

(B) Crews shall conduct a minimum of 30 minutes of visual and aural monitoring of the search area prior to commanding the first post detonation. This 30-minute observation period may include pattern deployment time.

(C) For any part of the briefed pattern where a post (source/receiver sonobuoy pair) will be deployed within 914 m (1,000 yd) of observed marine mammal activity, the Navy shall deploy the receiver ONLY and monitor while conducting a visual search. When marine mammals are no longer detected within 914 m (1,000 yd) of the intended post position, the Navy shall co-locate the explosive source sonobuoy (AN/SSQ-110A) (source) with the receiver.

(D) When operationally feasible, Navy crews shall conduct continuous visual and aural monitoring of marine mammal activity. This is to include monitoring of own-aircraft sensors from first sensor placement to checking off station and out of RF range of these sensors.

(E) *Aural Detection*—If the presence of marine mammals is detected aurally, then that shall cue the Navy aircrew to increase the diligence of their visual surveillance. Subsequently, if no marine mammals are visually detected, then the crew may continue multi-static active search.

(F) *Visual Detection*—If marine mammals are visually detected within 914 m (1,000 yd) of the explosive source sonobuoy (AN/SSQ-110A) intended for use, then that payload shall not be detonated. Aircrews may utilize this post once the marine mammals have not been re-sighted for 30 minutes, or are observed to have moved outside the 914 m (1,000 yd) safety buffer. Aircrews may shift their multi-static active search to another post, where marine mammals are outside the 914 m (1,000 yd) safety buffer.

(G) Aircrews shall make every attempt to manually detonate the unexploded charges at each post in the pattern prior to departing the operations area by using the "Payload 1 Release" command followed by the "Payload 2 Release" command. Aircrews shall refrain from using the "Scuttle" command when two payloads remain at a given post. Aircrews will ensure that a 914 m (1,000 yd) safety buffer, visually clear of marine mammals, is maintained around each post as is done during active search operations.

(H) Aircrews shall only leave posts with unexploded charges in the event of a sonobuoy malfunction, an aircraft system malfunction, or when an aircraft must immediately depart the area due to issues such as fuel constraints, inclement weather, and in-flight emergencies. In these cases, the sonobuoy will self-scuttle using the secondary or tertiary method.

(I) The Navy shall ensure all payloads are accounted for. Explosive source sonobuoys (AN/SSQ-110A) that can not be scuttled shall be reported as unexploded ordnance via voice communications while airborne, then upon landing via naval message.

(J) Mammal monitoring shall continue until out of own-aircraft sensor range.

(viii) Memorandum of Agreement (MOA)

The Navy and NMFS shall develop an MOA, and other mechanism consistent with Federal fiscal law requirements (and all other applicable laws), that allows the Navy to assist NMFS with the Phase 1 and 2 Investigations of USEs through the provision of in-kind services, such as (but not limited to) the use of plane/boat/truck for transport of personnel involved in the stranding response or investigation or animals, use of Navy property for necropsies or burial, or assistance with aerial surveys to discern the extent of a USE. The Navy may assist NMFS with the Investigations by providing one or more of the in-kind services outlined in the MOA, when available and logistically feasible and when the assistance does not negatively affect Fleet operational commitments.

(b) [Reserved]

#### **§218.115 Requirements for monitoring and reporting.**

(a) The Navy is required to cooperate with the NMFS, and any other Federal, State or local agency monitoring the impacts of the activity on marine mammals.

(b) *General Notification of Injured or Dead Marine Mammals*—Navy personnel shall ensure that NMFS is

notified immediately (*see* Communication Plan) or as soon as clearance procedures allow) if an injured, stranded, or dead marine mammal is found during or shortly after, and in the vicinity of, any Navy training exercise utilizing MFAS, HFAS, or underwater explosive detonations. The Navy will provide NMFS with species or description of the animal(s), the condition of the animal(s) (including carcass condition if the animal is dead), location, time of first discovery, observed behaviors (if alive), and photo or video (if available). In the event that an injured, stranded, or dead marine mammal is found by the Navy that is not in the vicinity of, or during or shortly after, MFAS, HFAS, or underwater explosive detonations, the Navy will report the same information as listed above as soon as operationally feasible and clearance procedures allow.

(c) *General Notification of Ship Strike*—In the event of a ship strike by any Navy vessel, at any time or place, the Navy shall do the following:

(1) Immediately report to NMFS the species identification (if known), location (lat/long) of the animal (or the strike if the animal has disappeared), and whether the animal is alive or dead (or unknown)

(2) Report to NMFS as soon as operationally feasible the size and length of animal, an estimate of the injury status (ex., dead, injured but alive, injured and moving, unknown, etc.), vessel class/type and operational status.

(3) Report to NMFS the vessel length, speed, and heading as soon as feasible.

(4) Provide NMFS a photo or video, if equipment is available

(d) *Event Communication Plan*—The Navy shall develop a communication plan that will include all of the communication protocols (phone trees, etc.) and associated contact information required for NMFS and the Navy to carry out the necessary expeditious communication required in the event of a stranding or ship strike, including as described in the proposed notification measures above.

(e) The Navy must conduct all monitoring and/or research required under the Letter of Authorization including abiding by the NWTRC Monitoring Plan (<http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications>)

(f) *Report on Monitoring required in paragraph (c) of this section*—The Navy shall submit a report annually on September 1 describing the implementation and results (through June 1 of the same year) of the monitoring required in paragraph (c) of

this section. Navy will standardize data collection methods across ranges to allow for comparison in different geographic locations.

(g) *Annual NWTRC Report*—The Navy will submit an Annual NWTRC Report on October 1 of every year (covering data gathered through August 1). This report shall contain the subsections and information indicated below.

(1) *ASW Summary*—This section shall include the following information as summarized from non-major training exercises (unit-level exercises, such as TRACKEXs and MIW):

(i) *Total Hours*—Total annual hours of each type of sonar source (along with explanation of how hours are calculated for sources typically quantified in alternate way (buoys, torpedoes, etc.))

(ii) *Cumulative Impacts*—To the extent practicable, the Navy, in coordination with NMFS, shall develop and implement a method of annually reporting non-major training (i.e., ULT) utilizing hull-mounted sonar. The report shall present an annual (and seasonal, where practicable) depiction of non-major training exercises geographically across NWTRC. The Navy shall include (in the NWTRC annual report) a brief annual progress update on the status of the development of an effective and unclassified method to report this information until an agreed-upon (with NMFS) method has been developed and implemented.

(h) *Sinking Exercises (SINKEXs)*—This section shall include the following information for each SINKEX completed that year:

(1) Exercise Info;

(i) Location;

(ii) Date and time exercise began and ended;

(iii) Total number and types of rounds expended/explosives detonated;

(iv) Number and types of passive acoustic sources used in exercise;

(v) Total hours of passive acoustic search time;

(vi) Number and types of vessels, aircraft, etc., participating in exercise;

(vii) Wave height in feet (high, low and average during exercise); and

(ix) Narrative description of sensors and platforms utilized for marine mammal detection and timeline illustrating how marine mammal detection was conducted

(2) Individual Marine Mammal Observation during SINKEX (by Navy Lookouts) Information

(i) Location of sighting;

(ii) Species (if not possible—indication of whale/dolphin/pinniped);

(iii) Number of individuals;  
 (iv) Calves observed (y/n);  
 (v) Initial detection sensor;  
 (vi) Length of time observers maintained visual contact with marine mammal;  
 (vii) Wave height;  
 (viii) Visibility;  
 (ix) Whether sighting was before, during, or after detonations/exercise, and how many minutes before or after;  
 (x) Distance of marine mammal from actual detonations (or target spot if not yet detonated)—use four categories to define distance:  
 (A) The modeled injury threshold radius for the largest explosive used in that exercise type in that OPAREA (TBD m for SINKEK in NWTRC);  
 (B) The required exclusion zone (1 nm for SINKEK in NWTRC);  
 (C) The required observation distance (if different than the exclusion zone (2 nm for SINKEK in NWTRC); and  
 (D) Greater than the required observed distance. For example, in this case, the observer would indicate if < TBD m, from 738 m – 1 nm, from 1 nm – 2 nm, and > 2 nm.  
 (xi) *Observed behavior*—Watchstanders will report, in plain language and without trying to categorize in any way, the observed behavior of the animals (such as animal closing to bow ride, paralleling course/speed, floating on surface and not swimming *etc.*), including speed and direction.  
 (xii) *Resulting mitigation implementation*—Indicate whether explosive detonations were delayed, ceased, modified, or not modified due to marine mammal presence and for how long.  
 (xiii) If observation occurs while explosives are detonating in the water, indicate munitions type in use at time of marine mammal detection.  
 (i) Improved Extended Echo-Ranging System (IEER) Summary  
 (1) Total number of IEER events conducted in NWTRC;  
 (2) Total expended/detonated rounds (buoys); and  
 (3) Total number of self-scuttled IEER rounds.  
 (f) *Explosives Summary*—The Navy is in the process of improving the methods used to track explosive use to provide increased granularity. To the extent practicable, the Navy shall provide the information described below for all of their explosive exercises. Until the Navy is able to report in full the information below, they will provide an annual update on the Navy's explosive tracking methods, including improvements from the previous year.  
 (1) Total annual number of each type of explosive exercise (of those identified

as part of the “specified activity” in this final rule) conducted in NWTRC; and  
 (2) Total annual expended/detonated rounds (missiles, bombs, *etc.*) for each explosive type.  
 (k) *NWTRC 5-Yr Comprehensive Report*—The Navy shall submit to NMFS a draft report that analyzes and summarizes all of the multi-year marine mammal information gathered during ASW and explosive exercises for which annual reports are required (Annual NWTRC Exercise Reports and NWTRC Monitoring Plan Reports). This report will be submitted at the end of the fourth year of the rule (November 2013), covering activities that have occurred through June 1, 2013.  
 (l) *Comprehensive National ASW Report*—By June, 2014, the Navy shall submit a draft National Report that analyzes, compares, and summarizes the active sonar data gathered (through January 1, 2014) from the watchstanders and pursuant to the implementation of the Monitoring Plans for the Northwest Training Range Complex, the Southern California Range Complex, the Atlantic Fleet Active Sonar Training, the Hawaii Range Complex, the Marianas Islands Range Complex, and the Gulf of Alaska.  
**§ 218.116 Applications for Letters of Authorization.**  
 To incidentally take marine mammals pursuant to these regulations, the U.S. Citizen (as defined by § 216.103) conducting the activity identified in § 218.110(c) (*i.e.*, the Navy) must apply for and obtain either an initial Letter of Authorization in accordance with § 218.117 or a renewal under § 218.118.  
**§ 218.117 Letters of Authorization.**  
 (a) A Letter of Authorization, unless suspended or revoked, will be valid for a period of time not to exceed the period of validity of this subpart, but must be renewed annually subject to annual renewal conditions in § 218.118.  
 (b) Each Letter of Authorization shall set forth:  
 (1) Permissible methods of incidental taking;  
 (2) Means of effecting the least practicable adverse impact on the species, its habitat, and on the availability of the species for subsistence uses (*i.e.*, mitigation); and  
 (3) Requirements for mitigation, monitoring and reporting.  
 (c) Issuance and renewal of the Letter of Authorization shall be based on a determination that the total number of marine mammals taken by the activity as a whole will have no more than a negligible impact on the affected species or stock of marine mammal(s).

**§ 218.118 Renewal of Letters of Authorization and adaptive management.**  
 (a) A Letter of Authorization issued under § 216.106 and § 218.177 of this chapter or the activity identified in § 218.170(c) will be renewed annually upon:  
 (1) Notification to NMFS that the activity described in the application submitted under § 218.246 will be undertaken and that there will not be a substantial modification to the described work, mitigation or monitoring undertaken during the upcoming 12 months;  
 (2) Receipt of the monitoring reports and notifications within the indicated timeframes required under § 218.115(b through j); and  
 (3) A determination by the NMFS that the mitigation, monitoring and reporting measures required under § 218.114 and the Letter of Authorization issued under §§ 216.106 and 218.117 of this chapter, were undertaken and will be undertaken during the upcoming annual period of validity of a renewed Letter of Authorization.  
 (b) *Adaptive Management*—Based on new information, NMFS may modify or augment the existing mitigation measures if new data suggests that such modifications would have a reasonable likelihood of reducing adverse effects to marine mammals and if the measures are practicable. Similarly, NMFS may coordinate with the Navy to modify or augment the existing monitoring requirements if the new data suggest that the addition of a particular measure would likely fill in a specifically important data gap. The following are some possible sources of new and applicable data:  
 (1) Results from the Navy's monitoring from the previous year (either from the NWTRC or other locations);  
 (2) Results from specific stranding investigations (either from the NWTRC Range Complex or other locations, and involving coincident MFAS/HFAS training or not involving coincident use) or NMFS' long term prospective stranding investigation discussed in the preamble to this proposed rule;  
 (3) Results from general marine mammal and sound research (funded by the Navy or otherwise);  
 (4) Any information which reveals that marine mammals may have been taken in a manner, extent or number not authorized by these regulations or subsequent Letters of Authorization.  
 (c) If a request for a renewal of a Letter of Authorization issued under §§ 216.106 and 218.118 of this chapter indicates that a substantial modification to the described work, mitigation or

monitoring undertaken during the upcoming season will occur, or if NMFS utilizes the adaptive management mechanism addressed in paragraph (b) of this section to modify or augment the mitigation or monitoring measures, the NMFS shall provide the public a period of 30 days for review and comment on the request. Review and comment on renewals of Letters of Authorization would be restricted to:  
 (1) New cited information and data indicating that the determinations made in this document are in need of reconsideration, and  
 (2) Proposed changes to the mitigation and monitoring requirements contained in these regulations or in the current Letter of Authorization.

(d) A notice of issuance or denial of a renewal of a Letter of Authorization will be published in the **Federal Register**.  
**§ 218.119 Modifications to Letters of Authorization.**  
 (a) Except as provided in paragraph (b) of this section, no substantive modification (including withdrawal or suspension) to the Letter of Authorization by NMFS, issued pursuant to §§ 216.106 and 218.117 of this chapter and subject to the provisions of this subpart, shall be made until after notification and an opportunity for public comment has been provided. For purposes of this paragraph, a renewal of a Letter of Authorization under § 218.118, without

modification (except for the period of validity), is not considered a substantive modification.  
 (b) If the Assistant Administrator determines that an emergency exists that poses a significant risk to the well-being of the species or stocks of marine mammals specified in § 218.110(b), a Letter of Authorization issued pursuant to §§ 216.106 and 218.117 of this chapter may be substantively modified without prior notification and an opportunity for public comment. Notification will be published in the **Federal Register** within 30 days subsequent to the action.  
 [FR Doc. E9–16301 Filed 7–10–09; 8:45 am]  
**BILLING CODE 3510–22–P**



DEPARTMENT OF THE NAVY  
OFFICE OF THE CHIEF OF NAVAL OPERATIONS  
2000 NAVY PENTAGON  
WASHINGTON, DC 20350-2000

IN REPLY REFER TO

5090  
Ser N456M/8U158135  
21 April 2008

Mr. P. Michael Payne  
Division Chief  
Permits, Conservation, and Education Division  
National Marine Fisheries Service (NMFS)  
National Oceanic and Atmospheric Administration  
B-SSMC3, Room 13821  
1315 East-West Highway  
Silver Springs, MD 20910

Dear Mr. Payne:

The Commander, U.S. Pacific Fleet (CFP) is preparing an Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS) to assess the potential environmental impacts associated with sustainable range usage and enhancements within the Navy's Northwest Training Range Complex (NWTRC). Specifically, the proposed action is to support and conduct current and emerging training and Research, Development, Test, and Evaluation (RDT&E) activities in the NWTRC and upgrade and modernize range complex capabilities to enhance and sustain navy training and testing. A collection of actions will be evaluated within the EIS/OEIS.

The No Action Alternative is the continuation of training activities and major range events in the NWTRC. Two action alternatives are proposed to accomplish the Proposed Action. Alternative 1 consists of an increase in the number of training activities from levels described in the No Action Alternative, along with force structure changes associated with the introduction of new weapon systems, vessels, and aircraft into the Fleet. Alternative 2 consists of all elements of Alternative 1 with an increase in the number of training activities and implementation of range enhancements.

The purpose of the proposed action is to:

- Achieve and maintain Fleet readiness using the NWTRC to support and conduct current, emerging, and future training activities and research, development, test, and evaluation (RDT&E) operations (primarily Unmanned Aerial Vehicles);
- Expand Warfare Missions supported by the NWTRC, consistent with the requirements of the Fleet Readiness Training Plan (FRTTP) and other transformation initiatives; and
- Upgrade/modernize existing range capabilities to enhance and sustain Navy training and RDT&E operations.

More specific descriptions of the alternatives are included enclosure (1).

Conduct of these activities will likely result in acoustic exposure of marine mammals listed under the Marine Mammal Protection Act (MMPA) from Mid-Frequency Active Sonar (MFA) and impulsive sources, and likely requires a Letter of Authorization (LOA). As such, the Navy will be submitting an LOA request to your office in the coming months for these activities. It is expected that species for which an LOA is sought will include species listed under the Endangered Species Act.

As applicant for a Letter of Authorization, the Navy requests your office initiate early consultation procedures with the Endangered Species Division, in accordance with Section 7(a)(3) of the Endangered Species Act and its implementing regulation at 50 CFR §402.11. In accordance with these regulations, the attached preliminary Draft Description of the Proposed Action and Alternatives for the NWTRC EIS/OEIS serves as the Navy's definitive proposal outlining the action (enclosure (1)). As previously stated, the effects of the proposed action for purposes of the MMPA permit will be from exposure to acoustic energy from MFA sonar and impulsive sources. The level of magnitude of these effects is still being modeled, and will be included in the Navy's request for an LOA.

Title 10, Section 5062 of the United States Code requires the Navy to be "organized, trained, and equipped primarily for prompt and sustained combat incident to operations at sea." The current and emerging training and RDT&E activities in the NWTRC and proposed enhancements of the NWTRC capabilities as proposed will be used to meet this legal requirement. Thus, in accordance with 50 CFR §402.11(b), this letter serves as the Navy's statement that it intends to implement the proposal



DEPARTMENT OF THE NAVY  
OFFICE OF THE CHIEF OF NAVAL OPERATIONS  
2000 NAVY PENTAGON  
WASHINGTON, DC 20350-2000

IN REPLY REFER TO

5090  
Ser N456K/8U158345  
14 November 2008

Ms. Angela Somma  
Division Chief Endangered Species Division  
Office of Protected Resources  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service (NMFS)  
B-SSMC3 Room 13821  
1315 East-West Highway  
Silver Springs, MD 20910-3282

Dear Ms. Somma:

The Commander, U.S. Pacific Fleet (CPF) is preparing an Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS) to assess the potential environmental impacts associated with sustainable range usage and enhancements within the Navy's Northwest Training Range Complex (NWTRC). Specifically, the proposed action is to support and conduct current and emerging training and Research, Development, Test, and Evaluation (RDT&E) activities in the NWTRC and upgrade and modernize range complex capabilities to enhance and sustain navy training and testing. Through our cooperating agency agreement, the Navy and National Marine Fisheries Service (NMFS) are working together to develop these DEISs/OEISs prior to release for public comment.

In a letter dated April 21, 2008, the Navy requested the NMFS' permit division initiate early consultation in anticipation of submitting a Marine Mammal Protection Act request for rulemaking and Letters of Authorization. In accordance with 50 CFR §401.12(f), the Navy is submitting its Biological Evaluation (BE) [Enclosure (1)] and is requesting formal consultation pursuant to Section 7(a)(2).

This BE assesses the potential effects of the proposed actions on species protected under the Endangered Species Act (ESA) that potentially occur within the NWTRC.

In accordance with 50 CFR §401.14(c) the attached BE includes:  
(1) a description of the proposed action; (2) descriptions of the specific areas where the proposed action will occur (also called Study Area); (3) descriptions of the listed species and critical habitat that may be affected by the actions; (4) the potential effects on listed and proposed species or critical habitat; (5)

should an MMPA Letter of Authorization be obtained from your office.

We appreciate your continued support in helping us to meet our Section 7 responsibilities. My point of contact for this matter is Ms. Elizabeth Phelps, 703-6047-5420 or Elizabeth.Phelps@navy.mil, or Commander, U.S. Pacific Fleet's point of contact is Mr. Chip Johnson, 619-767-1567 or Chip.Johnson@navy.mil.

Sincerely,

Ronald Tickle  
Head, Operational Environmental  
Readiness and Planning Branch  
Environmental Readiness Division  
(OPNAV N45)

Enclosure:

(1) DRAFT - Northwest Training Range Complex EIS/OEIS  
Description of Proposed Action and Alternatives (dated June 2007)

Copy to:

OPNAV N43  
Commander, U.S. Fleet Forces Command (N73, N77)  
Commander, U.S. Pacific Fleet (N01CE, N7)  
Commander, Naval Installations Command (N45)  
Commander, Navy Region Northwest (N40)  
Commander, Navy Region Southwest (N40)  
Commander, Naval Facilities Engineering Command, Northwest (N45)  
Commander, Naval Facilities Engineering Command, Southwest (N45)

an analysis of cumulative effects; and (6) measures proposed by the Navy to mitigate potential effects of the proposed action. Please direct your attention to those species and critical habitats under the jurisdiction of NMFS.

Additional technical information regarding the process by which the Navy determined the listed species distribution in these geographic areas is detailed in Enclosure 2. These reports are in a draft stage, and would benefit from your staff's input, should any technical errors be identified. We are providing this report as additional relevant technical information for purposes of consultation under the ESA.

My staff point of contact for this matter is Dr. Kelly Brock who can be reached at 703-604-5420 or via email at [Kelly.brock@navy.mil](mailto:Kelly.brock@navy.mil); Commander, U.S. Pacific Fleet's point of contact for this matter is Mr. Chip Johnson, who can be reached at (619)-767-1567 or via email at [Chip.johnson@navy.mil](mailto:Chip.johnson@navy.mil).

Sincerely,



Ronald E. Tickle  
Head, Operational Environmental  
Readiness and Planning Branch  
Environmental Readiness Division  
(OPNAV N45)

Enclosures:

- (1) Biological Evaluation for Northwest Training Range Complex.
- (2) Marine Resources Assessment Update for the Pacific Northwest Operating Area (Draft Report September 2006 - CD Copy)

Copy to (w/o enclosures):

DASN (E)  
OPNAV N43  
Commander, U.S. Fleet Forces Command (N73, N77)  
Commander, U.S. Pacific Fleet (N01CE, N7)  
Commander, Naval Installations Command (N45)  
Commander, Navy Region Northwest (N40)  
Commander, Navy Region Southwest (N40)  
Commander, Naval Facilities Engineering Command, Northwest (N45)  
Commander, Naval Facilities Engineering Command, Southwest (N45)

National Marine Fisheries Service

Northwest Regional Office  
Attn: Mr. Bob Lohn  
7600 Sand Point Way NE  
Seattle, WA 98115



DEPARTMENT OF THE NAVY  
COMMANDER  
UNITED STATES PACIFIC FLEET  
250 MAKALAPA DRIVE  
PEARL HARBOR, HAWAII 96860-3131

IN REPLY REFER TO:  
5090  
Ser N01CE/1347  
19 Dec 08

Mr. Bob Lohn, Regional Administrator  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service (NMFS)  
7600 Sand Point Way NE  
Seattle, WA 98115

Dear Mr. Lohn:

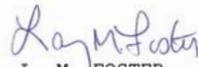
Subj: NORTHWEST TRAINING RANGE COMPLEX BIOLOGICAL EVALUATION  
AND ESSENTIAL FISH HABITAT ASSESSMENT

In accordance with 50 CFR §402.12, the Navy requested formal consultation pursuant to Section 7(a)(2) of the Endangered Species Act with Headquarters, National Marine Fisheries Service (enclosure (1)) and with the U. S. Fish & Wildlife Service, Western Washington Fish and Wildlife Office. The Commander, U.S. Pacific Fleet is forwarding copies of the Biological Evaluation (BE) for your information (enclosure (2)). The BE assesses possible impacts to both U.S. Fish and Wildlife Service and National Marine Fisheries Service listed species that potentially occur within the Northwest Training Range Complex environmental impact statement (EIS) study area.

In accordance with the Magnuson-Stevens Fisheries Conservation and Management Act of 1976 the assessment of essential fish habitat (enclosure (3)). The assessment concludes that, based on the limited extent, duration, and magnitude of potential impacts from Northwest Training Range Complex EIS training activities, there would not be adverse effects on essential fish habitat.

If you need additional information or have questions, please feel free to contact Mrs. Kimberly Kler (360) 396-0927, email: kimberly.kler@navy.mil.

Sincerely,

  
L. M. FOSTER  
By direction

Subj: NORTHWEST TRAINING RANGE COMPLEX BIOLOGICAL EVALUATION  
AND ESSENTIAL FISH HABITAT ASSESSMENT

Enclosures: 1. Chief of Naval Operations Letter Serial 5090  
N456K/8U158345 of November 14 2008 from Mr. Ron  
Tickle to Ms. Somma (NMFS)  
2. Northwest Training Range Complex Extension  
Biological Evaluation of October 2008 (including 2  
CDs)  
3. Northwest Training Range Complex Essential Fish  
Habitat Assessment of November 2008

Copy to (w/o enclosures):  
Western Washington Fish and Wildlife Office  
(Mr. John Grettenberger)  
Chief of Naval Operations, Washington D.C. (Kelly Brock, N45)  
Commander, U.S. Fleet Forces Command (Gary Edwards, N45)  
Commander, Navy Region Northwest, Silverdale, WA (Renee  
Wallis, N40)  
Naval Facilities Engineering Command, Silverdale, WA (Dan Hayes,  
N45)  
Naval Air Station Whidbey Island, Oak Harbor, WA (John Mosher,  
N45)



DEPARTMENT OF THE NAVY

COMMANDER  
UNITED STATES PACIFIC FLEET  
250 MAKALAPA DRIVE  
PEARL HARBOR, HAWAII 96860-3131

IN REPLY REFER TO:  
5090  
Ser N01CE/1348  
19 Dec 08

Mr. Ken S. Berg, Manager  
Western Washington Fish and Wildlife Office  
U.S. Fish and Wildlife Service  
510 Desmond Drive SE, Suite 102  
Lacey, WA 98503

Dear Mr. Berg:

Subj: NORTHWEST TRAINING RANGE COMPLEX BIOLOGICAL EVALUATION

In accordance with 50 CFR §402.12, the Commander, U.S. Pacific Fleet has prepared a Biological Evaluation (BE) and is requesting formal consultation pursuant to Section 7(a)(2). The BE assesses the potential effects of the proposed action to both U.S. Fish and Wildlife Service and National Marine Fisheries Service listed species that potentially occur within the Northwest Training Range Complex environmental impact statement (EIS) study area.

The Navy understands your staffing constraints, but to meet our mission requirements we request that formal consultation be concluded by July 15, 2009. Your response by this date will support of our EIS project schedule and planned publication of the final EIS in the Federal Register on August 28, 2009.

If you need additional information or have questions, please feel free to contact Mrs. Kimberly Kler (360) 396-0927, email: kimberly.kler@navy.mil.

Sincerely,

L. M. FOSTER  
By direction

Subj: NORTHWEST TRAINING RANGE COMPLEX BIOLOGICAL EVALUATION

Enclosure: 1. Northwest Training Range Complex Extension  
Biological Evaluation (October 2008)

Copy to (w/o enclosure):

Western Washington Fish and Wildlife Office (Mr. John Grettenberger)  
Chief of Naval Operations, Washington D.C. (Kelly Brock, N45)  
Commander, U.S. Fleet Forces Command (Gary Edwards, N45)  
Commander, Navy Region Northwest, Silverdale, WA (Renee Wallis, N40)  
Naval Facilities Engineering Command, Silverdale, WA (Dan Hayes, N45)  
Naval Air Station Whidbey Island, Oak Harbor, WA (John Mosher, N45)

**Wauer, Brian D**

**From:** Hart, George A CIV Navy Region NW, N40 [george.hart1@navy.mil]  
**Sent:** Thursday, August 12, 2010 11:41 AM  
**To:** Kler, Kimberly H CIV NAVFAC NW, EV1  
**Subject:** FW: Biological\_Evaluation\_Amendment\_10-25-09  
**Signed By:** george.hart1@navy.mil

-----Original Message-----

From: Hart, George A CIV CNRNW, N40BA  
Sent: Thursday, October 29, 2009 6:43 AM  
To: Kevin\_Shelley@fws.gov  
Cc: Hart, George A CIV CNRNW, N40BA  
Subject: RE: Biological\_Evaluation\_Amendment\_10-25-09

Good morning Kevin: Thanks for letting me know you received the document. I will send the marbled murrelet survey protocol as an addendum to the NWTRC BE today. We did received the information on the delivery date for the Keyport BO but nothing was said about the NWTRC BO. That BO is the one I had questions on. Thanks.

George

George A. Hart  
NRNW N40BA, Biologist  
Navy Region Northwest  
1101 Tautog Circle  
Silverdale, Wa. 98315  
Phone 360-315-5103  
Fax 360-315-5095

There is no expedient to which a man will not go to avoid the labor of thinking.  
Thomas A. Edison  
US inventor (1847 - 1931)

-----Original Message-----

From: Kevin\_Shelley@fws.gov [mailto:Kevin\_Shelley@fws.gov]  
Sent: Wednesday, October 28, 2009 16:57  
To: Hart, George A CIV CNRNW, N40BA  
Cc: Hart, George A CIV CNRNW, N40BA  
Subject: Re: Biological\_Evaluation\_Amendment\_10-25-09

...just to confirm I received the subject doc. I believe John was going to speak with Ms. Wallace regarding a BiOp delivery date. ks

Kevin Shelley  
Senior Fish and Wildlife Biologist

U.S. Fish and Wildlife Service, WA Fish and Wildlife Office Complex Division of Consultation and Technical Assistance 510 Desmond Dr. SE, Ste. 102  
Lacey, WA 98503 ph. 360-753-9440

"Hart, George A  
CIV CNRNW, N40BA"  
<george.hart1@navy.mil>

10/27/2009 09:07  
AM

<Kevin\_Shelley@fws.gov>

To

cc

"Hart, George A CIV CNRNW, N40BA"  
<george.hart1@navy.mil>

Subject  
Biological\_Evaluation\_Amendment\_10-25-09

Kevin,

Haven't heard from you in a while. Did you ever get a schedule for the NWTRC BO? As you can see I have attached the amendment to the BE for the terrestrial species within the Okanagan MOA. If you have any further questions please let me know. They were suppose to have went yesterday but my mail box was apparently full and it didn't send.

George

George A. Hart  
NRNW N40BA, Biologist  
Navy Region Northwest  
1101 Tautog Circle  
Silverdale, Wa. 98315  
Phone 360-315-5103  
Fax 360-315-5095

There is no expedient to which a man will not go to avoid the labor of thinking.  
Thomas A. Edison  
US inventor (1847 - 1931)  
[attachment "Biological\_Evaluation\_Amendment\_10-25-09.doc" deleted by Kevin Shelley/WWO/R1/FWS/DOI]

**Wauer, Brian D**

**From:** Wauer, Brian D [Brian.Wauer@ManTech.com]  
**Sent:** Monday, January 25, 2010 3:16 PM  
**To:** Mosher, John G CIV COMPACFLT N01CE1JM; Kler, Kimberly H CIV NAVFAC NW, EV1  
**Cc:** Sodano, Gerald T CIV NAS Whidbey Island, N32; Bryant, Jacklyn  
**Subject:** Revised BE Amendment

From our phone call last week, here is a more recent BE Amendment, with the new figures that were discussed in the phone call:

1. Added "Darrington OPAREA" label where appropriate.
2. Created new figure with the following:
  - a. Depiction of roads to include at a minimum, Highway 97
  - b. Depiction of towns to include at a minimum, the town of Twisp
  - c. Added A/B/C labels where appropriate to the Okanogan and Roosevelt MOAs.

I think that completes all of my actions related to the FWS consultation from last week's call.

As an aside, Jerry Sodano and I have come up with a more accurate calculation of EA-6B / EA-18G flights that are between 500' and 1,500' within the MOAs:

Okanogan MOA:  
Between 500' and 1,500' – 363 annual flights  
Greater than 1,500' – 363 annual flights

Roosevelt MOA:  
Between 500' and 1,500' – 190 annual flights  
Greater than 1,500' – 190 annual flights

- Brian

Brian Wauer  
Director | ManTech SRS  
440 Stevens Avenue Suite 200  
Solana Beach, CA 92075  
[brian.wauer@mantech.com](mailto:brian.wauer@mantech.com)  
Phone: (858) 345-1947  
Cell: (619) 952-0301

**AMENDMENT TO THE BIOLOGICAL EVALUATION FOR THE  
NORTHWEST TRAINING RANGE COMPLEX EIS/OEIS  
OCTOBER 2009**

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**NWTRC EIS/OEIS: AMENDMENT TO THE BIOLOGICAL EVALUATION**

This amendment to the Biological Evaluation addresses several species of federally listed terrestrial animal life within the Northwest Training Range Complex (NWTRC) that may be affected by the Proposed Action detailed in the Northwest Training Range EIS/OEIS.

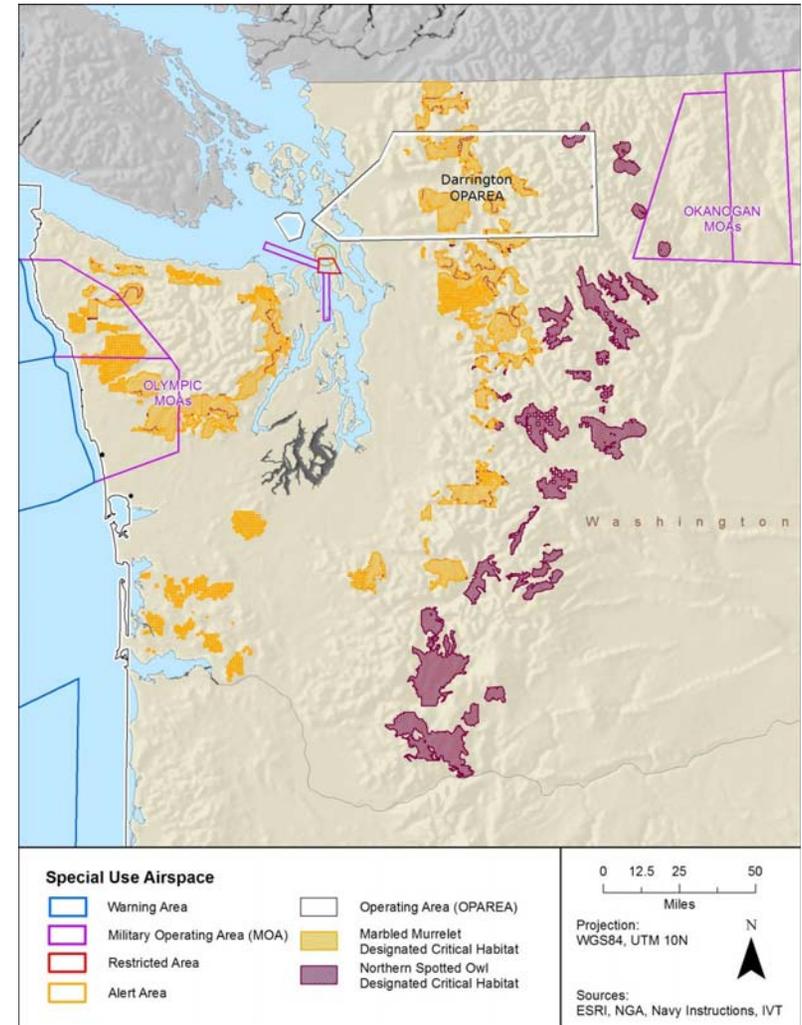
**THREATENED AND ENDANGERED SPECIES AND CRITICAL HABITAT**

Five of the species listed under the federal Endangered Species Act that have the potential to occur within the NWTRC’s military operation areas (MOAs) are addresses in this BE Amendment: – the northern spotted owl, grizzly bear, Canada lynx, gray wolf, and woodland caribou. Additional information for each species is provided below.

The **northern spotted owl** is a medium-sized, dark brown owl with a barred tail, white spots on the head and breast, and dark brown eyes surrounded by prominent facial disks. Males and females have similar plumage, but females typically weigh 10 to 20 percent more than males. The spotted owl is a relatively long-lived bird; produces few, but large young; invests significantly in parental care; experiences later or delayed maturity; and exhibits high adult survivorship. Spotted owls do not typically reach sexual maturity until after two years of age and when they pair, they are monogamous. Adult females lay an average of two eggs per clutch with a range of 1 to 4 eggs. Spotted owl pairs do not typically nest every year, nor are nesting pairs successful every year. Spotted owls are mostly nocturnal, but they may forage opportunistically during the day.

The distribution of the northern subspecies (there are also California and Mexican subspecies with distributions outside the study area) of the northern spotted owl includes southwestern British Columbia, western Washington and Oregon, and northwestern California. Northern spotted owls generally inhabit older forested habitats because they contain the structural characteristics required for nesting, roosting, and foraging. Specifically, northern spotted owls require a multi-layered, multi-species canopy with moderate to high canopy closure. Critical habitat areas within the NWTRC for the northern spotted owl are located in and adjacent to the southwest corner of the Okanogan MOA (shown in Figure 1).

The northern spotted owl was listed in 1990 as threatened throughout its range primarily due to loss and adverse modification of suitable habitat as a result of timber harvesting, habitat changes that are exacerbated by catastrophic events such as fire, volcanic eruption, disease, and wind storms. At the time of listing, small and isolated populations vulnerable to extinction, predation and competition were also identified as threats. Since listing of the northern spotted owl, recent reviews have more specifically identified competition with the barred owl (*Strix varia*), and fire in the relatively dry East Cascades and Klamath provinces of California and Oregon as greater threats than previously considered. New potential threats of unknown magnitude to the subspecies include West Nile virus and the sudden oak death tree disease.



**Figure 1: Northern Spotted Owl Critical Habitat within the NWTRC Study Area**

The **grizzly bear** (*Ursus arctos ssp. horribilis*) is federally listed as threatened. Grizzly bears historically occupied territory extending from central Mexico to the Arctic Ocean and from the Pacific Ocean east to the Mississippi River. Their current range includes Alaska, western and northern Canada, and the northern Rocky Mountains in the U.S. Grizzly bear recovery area in the NWTRC includes 9,500 mi<sup>2</sup> (24,600 square kilometers [km<sup>2</sup>]) of the North Cascade Mountains in north-central Washington, and 2,200 mi<sup>2</sup> (5,700 km<sup>2</sup>) of the Selkirk Mountains area of northern Idaho and northeast Washington. The North Cascade area contains less than 20 bears while the Selkirk Mountains area contains between 40 and 50 bears. See Figure 2 for a map of grizzly bear recovery area within the NWTRC.

Grizzly bears can be found in any of the habitats within their ranges, although they tend to prefer early seral communities. Range size spans tens to hundreds of square miles and differs between sexes; a male's territory may encompass that of two or three females. Habitat use is influenced by season, gender, and age. Grizzly bears may live to be 25 years old and they are generalist omnivores, eating a variety of roots, shoots, and fruits, but also fish, insects (moths), and ungulates. Home range size often depends on habitat quality and food availability, and appropriate denning habitat is important for survival (USFWS 2009a). Dens are most common on steep slopes above 6,500 ft (2,000 m) (Servheen and Klaver). Bears hibernate between 3 and 5 months during the winter. Food needs are especially important when emerging from hibernation in the spring and when preparing for hibernation in the fall. Mating occurs in early summer, followed by implantation in November or December. Otherwise, grizzly bears are solitary creatures, preferring isolation from humans and each other. The grizzly bear's affinity for isolation is especially true for females with cubs, which tend to select rugged habitat (MNRC 2005). Dens are most common on steep slopes above 6,500 ft (2,000 m) (Servheen and Klaver). Threats to the grizzly bear include incomplete habitat protection (e.g., motorized vehicle access), small population size, and population fragmentation leading to genetic isolation (USFWS 2009a).

The **Canada lynx** (*Lynx canadensis*) is federally listed as threatened. Lynx in the U.S. are at the southern margins of more dense populations in Canada and Alaska. They are found in 14 states with boreal forests. Within the NWTRC, two areas above 4,000 ft (1,220 m) have been designated as lynx critical habitat: 1) approximately 1,836 mi<sup>2</sup> (4,755 km<sup>2</sup>) in the northern Cascade Mountains in north-central Washington; and 2) approximately 10,102 mi<sup>2</sup> (26,163 km<sup>2</sup>) in northeastern Idaho and northwestern Montana (USFWS 2005, 2009b; Figure 3). Additional habitat on state lands in Washington are managed under the state's Lynx Habitat Management Plan (WDNR 2006). They are commonly found in large spruce-fir forests at higher elevations with cold winters and substantial snowfalls. Dense understory is important, both for prey habitat and for den sites. Lynx are highly mobile, with individual home ranges between 12 to 83 mi<sup>2</sup> (31 to 216 km<sup>2</sup>), depending on age, gender, season, lynx density, and prey base. They are a highly specialized predator of snowshoe hares, thus their population dynamics, survival, and reproduction are closely tied to snowshoe hare availability. Lynx typically enter natal dens and emerge with offspring from May to July. Timber management (e.g., pre-commercial thinning), recreation, and related activities are the primary threats to lynx on federal lands in the West. Connections between subpopulations of lynx, especially those in Canada, are important in maintaining populations in the U.S. (USFWS 2005, 2009b).

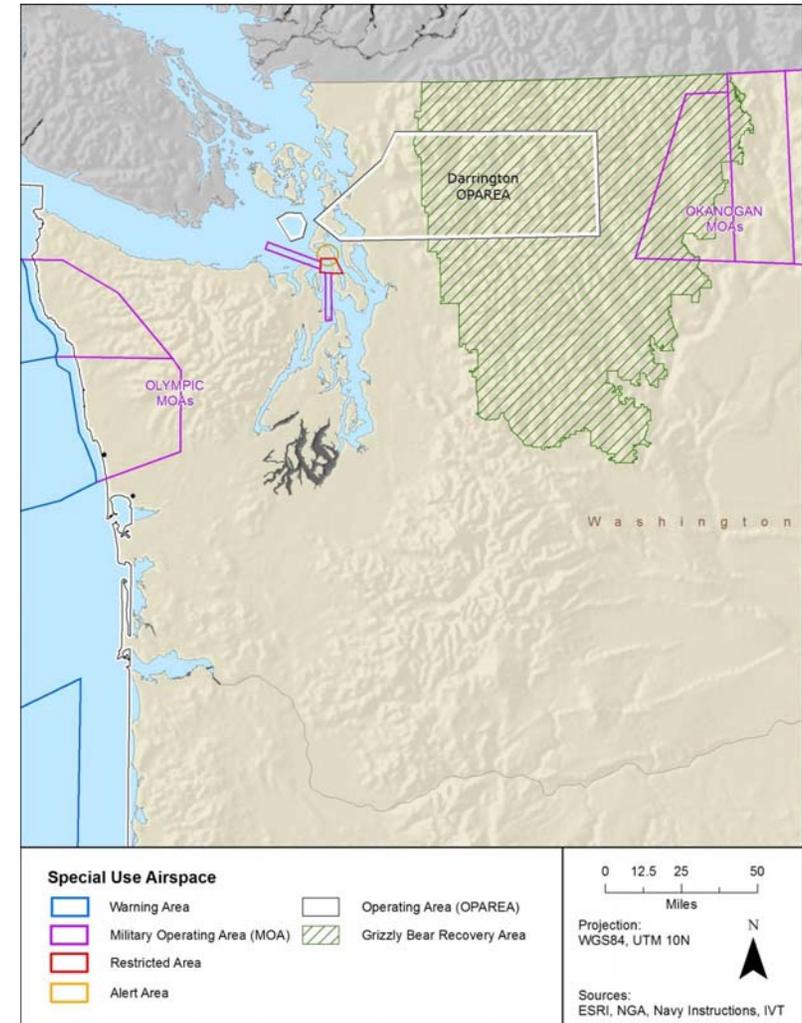


Figure 2: Grizzly Bear Recovery Area in the NWTRC Study Area

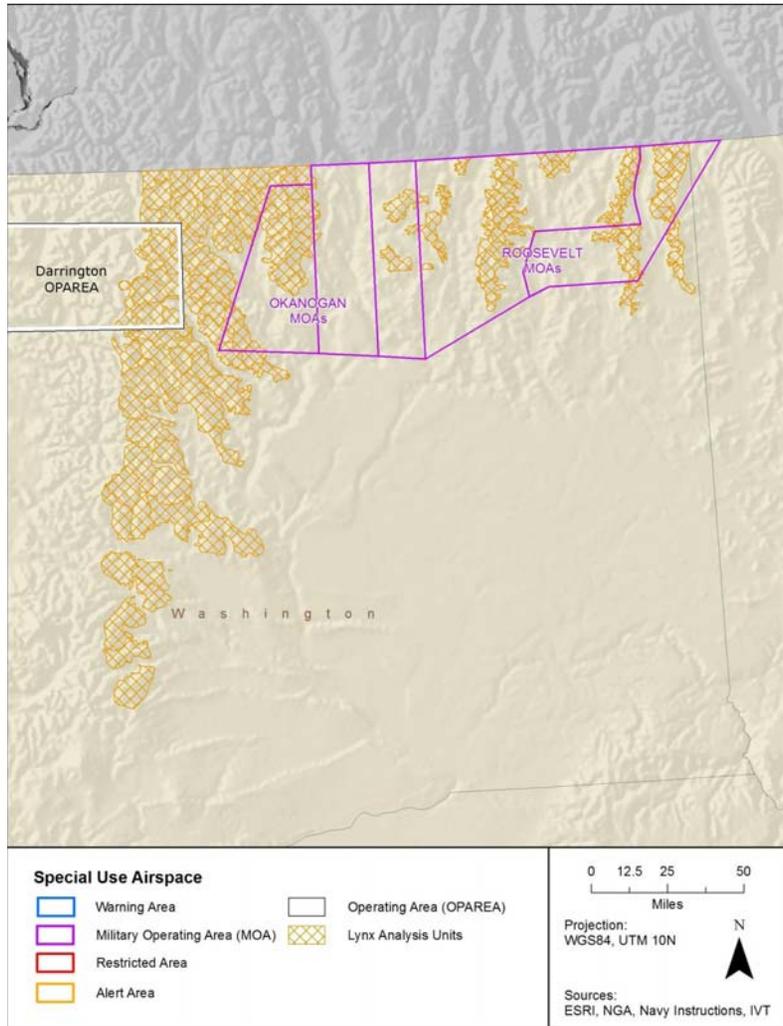


Figure 3: Lynx Critical Habitat in the NWTRC Study Area

Within the NWTRC, the **gray wolf** (*Canis lupus*) is federally listed as endangered, specifically populations west of U.S. 97 which bisects Okanogan MOA segment A from north to south. See Figure 4 for a map of this area within the NWTRC. One wolf pack, referred to as the Lookout Pack, has a home range in the vicinity of Twisp, Washington (about 125 miles north of Yakima; in the northwest corner of the Okanogan MOA segment A). No critical habitat has been designated with the NWTRC.

Wolves travel in packs that consist of a breeding pair, their offspring, and other non-breeding adults. Wolves can live 13 years. The Lookout Pack has about 6 or 7 members (Wiles, pers. comm. 2009). Reproduction normally begins after age 3 and occurs between April and October. On the average, five pups are born in early spring and are cared for by the entire pack. For the first six weeks, pups are reared in dens that are often used year after year. Mother and offspring may move between natal and other dens; natal dens are abandoned about 1.5 months after birth. Pack territories depend on the available prey and seasonal prey movements, and wolf may travel up to 30 miles in a day. Within the NWTRC, wolf territories range from 200 to 500 square miles in size (Bangs, pers. comm. 2009). Within their territories, wolves use a variety of habitats, mostly based on prey location and avoidance of humans. Different packs may use these habitats differently. Diet is composed largely of ungulates, such as elk, caribou, and deer, especially the young. Other animals are also taken (e.g., rabbits, squirrels, and grouse). Wolf populations were originally impacted by hunting and eradication programs. Development, habitat loss, hunting, and other predator control efforts continue to affect the specie's recovery. Except where otherwise indicated, information for this section was drawn from USFWS (1987), Cluff et al. (2002), Alfredeen (2006), NatureServe (2009), and USFWS (2009).

The **woodland caribou** (*Rangifer tarandus* ssp. *caribou*) is federally listed as endangered. No critical habitat has been designated to date, but a recovery area has been designated that encompasses 2,200 mi<sup>2</sup> (5,700 km<sup>2</sup>), 53 percent in the U.S. and the remainder in British Columbia, Canada. In the past, woodland caribou were widely distributed throughout the northern U.S. from Washington to Maine. In the NWTRC, woodland caribou have the potential to occur in northern Idaho and northeastern Washington. This is known as the South Selkirk subpopulation and consists of less than 50 individuals. Their population appears to be increasing about 7 percent each year. Woodland caribou primarily occupy old growth cedar/hemlock and spruce/fir forests above 4,000 ft (1,220 m) with high snow falls. The recovery area is characterized by long, steep sided drainages. Seasonal movements based on elevation are common, but woodland caribou do not engage in mass migrations noted for tundra caribou. They feed on shrubs during most of the year, and almost exclusively on arboreal lichen during the winter. Threats to woodland caribou include habitat loss and fragmentation, over-hunting, and predation. Forest-dwelling woodland caribou occur at low density and therefore require large areas with specific habitats for foraging, calving, and avoiding predators (Thomas and Gray 2002, USFWS 1994, 2008, 2009c).

**ENVIRONMENTAL CONSEQUENCES**

**Study Area**

The analysis presented for the natural resources in the terrestrial environment is focused on those areas where activities and training will occur that would affect terrestrial resources – specifically military aircraft training overflights within the Okanogan MOA segments B and C, and Roosevelt MOA segment B.

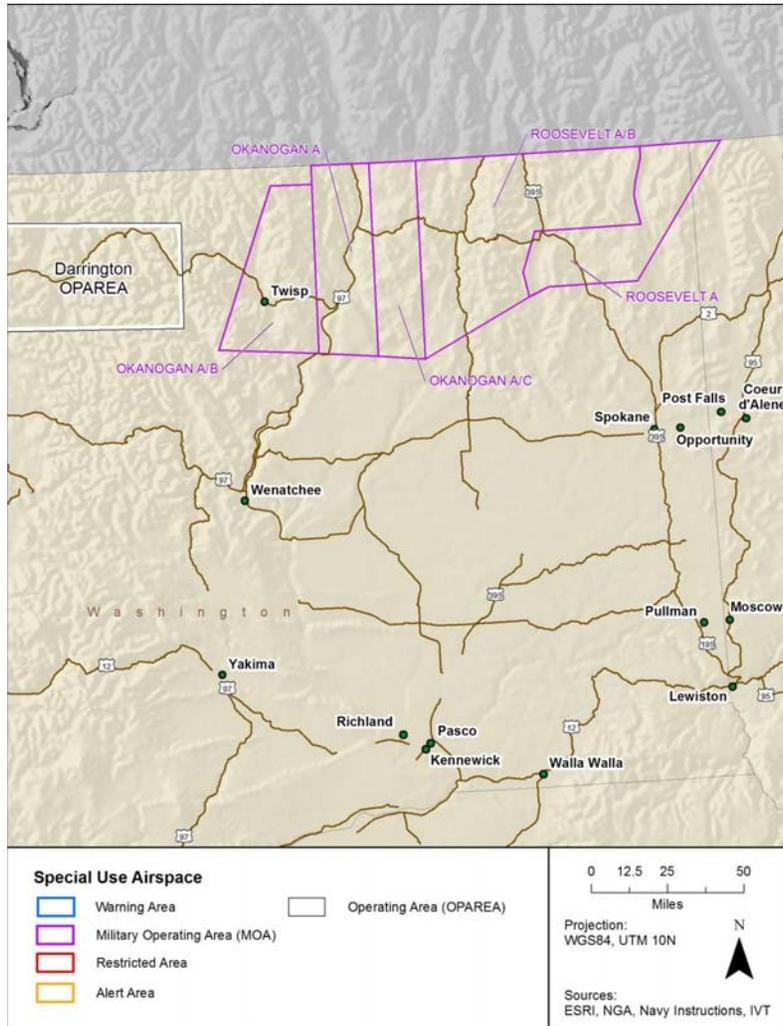


Figure 4: Okanogan and Roosevelt MOAs

**Approach to Analysis**

The U.S. Fish and Wildlife Service has expressed concern regarding potential impacts to listed species from overflight noise in excess of 92 dB. Because the five threatened and endangered species addressed in this amendment are found in the NWTRC occur in the Okanogan and Roosevelt MOAs, this analysis is focused on location of air operations relative to the listed species and anticipated overflight noise levels. The location of species and their habitats were provided to the Navy by the U.S. Fish and Wildlife Service.

**Aircraft Operations**

- Fixed-wing aircraft are used in training activities within the Okanogan and Roosevelt MOAs (there is no helicopter use in these MOAs).
- Three terms are used when referring to aircraft operations – sortie, event, and overflight. A sortie is defined as a single operation by one aircraft, i.e., one takeoff and one final landing. This most often occurs in a “range” or “military operating area” (MOA). An event could be one of several that occur in one aircraft sortie. For example, in one aircraft sortie, a single aircraft could conduct an ACM event and an EC event. “Overflight” is often used in wildlife literature and refers to the passing of an aircraft over or near an individual or group of animals. Because a sortie refers to a single flight of an aircraft, depending on the route taken during that sortie, an aircraft may overfly wildlife once, several times, or not at all. Sorties may also involve the aircraft flying at a variety of elevations, often thousands of feet, but occasionally down to 300 ft AGL (91 m).

The Okanogan MOA is located in north-central Washington near the Canadian border; A is the central segment, B is the western segment, and C is the eastern segment. The Roosevelt MOA is located in northeastern Washington and Idaho near the Canadian border; A is the western segment, and B is the eastern segment. The total area of the Okanogan MOA is 4,339 nm<sup>2</sup> (5,746 mi<sup>2</sup> [14,882 km<sup>2</sup>]), while the total area of the Roosevelt MOA is 5,319 nm<sup>2</sup> (7,044 mi<sup>2</sup> [18,244 km<sup>2</sup>]). Within these MOAs, aircraft would fly at a variety of elevations and speeds. Low-flying aircraft occur in Okanogan segments B (west) and C (east) and Roosevelt MOA segment B (east). “Low-flying” or “low-altitude flight” is defined as aircraft flying below 3,000 ft (910 m). Training activities include:

- Air combat maneuvers (ACM) that would involve EA-6B, F-16, and FA-18 aircraft in exercises that typically last 1.0 to 1.5 hours and occur mostly above 5,000 ft (1,525 m). Please see Section 2.4.1.1 of the EIS/OEIS for more details.
- HARM missile exercises (HARMEX; non-firing) would involve EA-6B aircraft in exercises that typically lasts one to two hours and occurs mostly above 10,000 ft (3,050 m). Please see Section 2.4.1.2 of the EIS/OEIS for more details.

ACM include basic flight maneuvers where aircraft engage in offensive and defensive maneuvering against each other. In Okanogan MOA segments B and C and Roosevelt MOA segment B, the lower limit flight altitude is 300 ft (91 m). The majority of flights involve EA-6B aircraft, but FA-18 and F-16 aircraft are also used at much lower frequency. The average time for this exercise is about one hour, with typically two aircraft participating in the exercise.

Most of the low-altitude training activity occurs in the southeast corner of Okanogan MOA C over the Columbia River. Few low altitude flights are conducted in Okanogan MOA B because

of the presence of two civilian airports (Methow Valley State Airport, Twisp Municipal Airport) and the proximity of the Methow Valley floor (State Route 20; Twisp River) to the MOA boundaries. In Roosevelt MOA B, most of the low-altitude training activity occurs in the I-395 and State Route 25 corridors north of Kettle Falls over the Kettle and Columbia Rivers.

Although aircraft are allowed a flight floor of 300 ft AGL, pilots seldom go below 500 ft AGL (152 m). During daylight hours in Okanogan and Roosevelt MOAs, if the ceiling is below 3,000 ft AGL (i.e., clouds below 3,000 ft [914 m]) or the visibility is less than 5 nautical miles (9 km), the aircraft are not allowed to fly below 1,500 ft (457 m) AGL. All night-time flights occur above 5,000 ft AGL (1,524 m). Based on prior activity, about 20 percent of annual events conducted in Okanogan and Roosevelt MOAs occur below 3,000 ft AGL. Exercises last about an hour, and an average of 7.5 minutes per event is spent flying below 3,000 ft AGL. This portion of each event occurs almost exclusively in wide valleys at altitudes no lower than 500 ft AGL. The terrain forming the sides of the valley is usually a few miles on either side of the flight path.

Table 1 summarizes the aircraft types and flight frequency for Okanogan and Roosevelt MOAs proposed under the proposed action (Preferred Alternative). These estimates include events in all MOA segments and assume no conditions limiting activity below 3,000 ft AGL (e.g., weather, cloud cover). In other words, the estimates likely over-state the number of events below 3,000 ft AGL in Okanogan MOA segments B and C and Roosevelt MOA segment B.

**Table 1: Summary of Aircraft Types and Events in Selected MOAs – Proposed Action**

Aircraft Type	Okanogan MOA		Roosevelt MOA	
	Estimated Events	20% below 3,000 ft AGL	Estimated Events	20% below 3,000 ft AGL
EA-6B	2,584	517	1,267	253
EA-18G	355	71	43	9
FA-18	43	9	66	13
P-3	4	1	0	0
<b>Total</b>	<b>2,985</b>	<b>597</b>	<b>1,376</b>	<b>275</b>

#### Aircraft Noise

Noise data for both the EA-6B and FA-18 in Table 2 represent three scenarios: descending from 3000 ft AGL to 500 ft AGL, in cruise mode at 500 ft AGL, and climb power mode from 500 ft AGL back up to and beyond 3000 ft AGL. Computerized aircraft single event noise modeling used a program called "SELCalc2" (AFCEE 2009; Melaas, U.S. Navy, pers. comm. 2009). Figures in Table 2 represent average peak sound level (L<sub>max</sub>) with four nautical miles lateral separation using single event U.S. Air Force noise model SELCalc2. The model does not take into consideration terrain or vegetation cover. In the case of terrain, a receptor (wildlife) above the project sound level would experience less sound; intervening vegetation attenuates noise somewhat (Aylor 1977).

**Table 2: Calculated Sound Level for Selected Aircraft at a Distance of 4 nm**

Aircraft Type	Descending to 3,000 ft AGL (dba)	Cruising at 500 ft AGL (dba)	Climbing from 3,000 ft AGL (dba)
EA-6B	61.4	41.6	54.9
FA-18	39.3	29.9	62.6

The greatest peak sound level (L<sub>max</sub>) from aircraft activities in the MOAs would result from an EA-6B climbing at 100 percent power. If a receptor were directly beneath the aircraft, the distance to 92 dB would be approximately 3,500 ft (1,067 m) (Melaas, U.S. Navy, pers. comm. 2009). Thus, for wildlife to be exposed to a 92 dB sound from Navy aircraft training activities, they would be located directly in the noise cone beneath a low-flying aircraft. The potential for special-status species in the Okanogan and Roosevelt MOAs to encounter this condition is quite low, and is explained for each listed species, below.

#### Overview of Overflight Impacts on Wildlife

Numerous studies have documented that wild animals respond to human-made noise, including low-altitude aircraft overflights (Larkin 1996, NPS 1994). The manner in which animals respond to overflights depends on several factors including life-history characteristics of the species, characteristics of the noise source, loudness, how suddenly the sound occurs ("onset rate"), distance from the noise source, the presence or absence of associated visual stimuli, and previous exposure to the sound. A primary concern is that low-altitude overflights may cause physiological or behavioral responses that reduce the animals' fitness or ability to survive. Researchers have documented a range of behavioral responses to overflights, ranging from indifference to extreme panic. Behavioral responses could interfere with raising young, habitat use, and physiological energy budgets. Most studies have focused on ungulates and birds, while little or no research has been conducted on carnivorous mammals, small mammals, reptiles, and amphibians (NPS 1994). While difficult to measure in the field, some behavioral responses are likely accompanied by physiological responses, such as increased heart rate, or stress. Chronic stress can compromise the general health of animals, but stress is not necessarily indicative of negative consequences to individuals or to populations (Larkin 1996, NPS 1994, Bowles *et al.* 1990 in Larkin 1996). Unless repeatedly exposed to loud noises or simultaneously exposed to synergistic stressors, it is possible that individuals would return to homeostasis almost immediately after exposure and the individual's overall metabolism and energy budgets would not be affected. Studies have also shown that animals can become habituated to noise following frequent exposure and cease to respond behaviorally to the noise (Larkin 1996, NPS 1994).

Fixed-wing aircraft overflights would result in short-term, localized increases in noise levels within the Study Area. Biological receptors on the ground and directly under the flight track could be exposed to aircraft noise, with decreasing intensity from the flight track centerline. As aircraft in flight gain altitude, the received noise level drops, often becoming indistinguishable from the background noise. The duration of exposure to fixed-wing aircraft noise would be very brief (seconds) as an aircraft passes overhead. Exposures would be infrequent based on the low number of events and the short duration of the exercises (about one hour).

Wildlife exposed to low-altitude aircraft overflights in Okanogan and Roosevelt MOAs could exhibit short-term behavioral or physiological responses, but not to the extent where the general health of individuals or populations would be compromised. Aircraft overflights are not expected to result in chronic stress based on the short duration and infrequency of exposure. These conclusions are based on the following: 1) wildlife within the MOAs are likely habituated to aircraft overflights; 2) the overall lack of concentration of flights at a given altitude, area, and power setting; 3) the relatively small number of low level overflights and the relatively brief amount of time that aircraft would be at lower altitudes (an estimated 7.5 minutes total per event); and 4) at lower altitudes, aircraft speeds and power settings would be in the lower range, producing less noise.

In general, potential impacts from aircraft overflights may arise from the loudness of a sound, sound at a particular frequency, or the visual image of the aircraft or its shadow. Adverse reactions may include a short-term startle response and short- or longer-term running. These reactions increase energy expenditure and may reduce survival or reproductive success. Terrain can aggravate these impacts. For instance, steep terrain may cause the animal to expend more energy, while steep or complex terrain may cause injury. On the other hand, valleys and dense overstory may moderate impacts because the view of the aircraft is obscured. Time of year and time of day can also alter potential impacts. For instance, deep snow may cause the animal to expend more energy when running, while a startle response and running during birthing season may cause injury to offspring (e.g., caribou). Animals may be less reactive during reproductive periods (e.g., spotted owl) or less reactive outside reproductive seasons (e.g., caribou). Adverse reactions may also include change in animal behavior, such as cessation of nursing, feeding, or resting, or leaving preferred or required habitat (e.g., den site). Studies indicate that the type of disturbance and its proximity influence an animal's response. For instance, helicopters and chain saws may be more disturbing to wildlife than fixed-wing aircraft (Gladwin et al. 1988, Delaney et al. 1997). The combination of visual image plus noise often elicits a greater response than noise alone. Last, reactions may be lessened because of prior experience (Manci 1988, NPS 1994, ORNL 2000, Radle 2007). It should be noted that "one species may be more or less affected than another, different noises have correspondingly different effects, and even individuals within the same species may have dissimilar responses depending on any number of physiological and location differences" (Radle 2007). In summary, whether an animal is affected by aircraft noise depends on a variety of characteristics associated with the animal and the aircraft (NPS 1994).

#### EFFECTS ON THREATENED AND ENDANGERED SPECIES AND CRITICAL HABITAT

The proposed action includes aircraft flying at a variety of elevations and speeds in and near northern spotted owl habitat within Okanogan MOA segment C. Northern spotted owls may be affected by overflight noise and potential aircraft strike, although their critical habitat would not be adversely modified or destroyed.

##### Northern Spotted Owl

Table 3 summarizes the aircraft types and flight frequency for Okanogan MOAs under the proposed action. These estimates include events in all MOA segments and assume no conditions limiting activity below 3,000 ft AGL (e.g., weather, cloud cover). In other words, the estimates

likely over-state the number of events below 3,000 ft AGL in Okanogan MOA segments B and C.

**Table 3: Summary of Aircraft Types and Events in Okanogan MOAs – Proposed Action**

Aircraft Type	Estimated Events	20% below 3,000 ft AGL
EA-6B	2,584	517
EA-18G	355	71
FA-18	43	9
P-3	4	1
<b>Total</b>	<b>2,985</b>	<b>597</b>

Citing research by Delaney et al. (1999), the U.S. Fish and Wildlife Service has expressed concern regarding exposure of this species to aircraft noise in excess of 92 dB. The following discussion summarized the findings of Delaney and relates the research to actions in the Okanogan MOA.

According to Delaney et al. (1999), several studies of the impact of different types of human disturbance on raptors, few studies have addressed such impacts on owls and there is "no published research available on the possible effect of noise on spotted owls." The study conducted by these authors specifically examined the impact of helicopters on Mexican spotted owls (*Strix occidentalis lucida*). Note: no studies were located that concerned aircraft noise on the northern spotted owl (*Strix occidentalis caurina*).

Owls were presented with helicopters flying under three scenarios: 1) an elevation of 100 feet vertical (15 m); 2) an elevation of 200 feet vertical (60 m); and 3) an elevation of 200 feet (30 m) vertical and 200 feet (30 m) lateral. All flights were above the tree canopy and occurred during nesting and non-nesting seasons.

Outside of nesting season, a received noise level of 104 dB or above caused owls to flush. During nesting season, similar responses were obtained at a received noise level of 102 dB or above. No responses were recorded below these levels. Helicopters approaching within 100 feet (30m) vertical elevation elicited responses 50 percent of the time. Helicopters approaching within 200 feet (60m) vertical elevation elicited responses 19 percent of the time. Helicopters approaching within 350 feet (105m) vertical elevation elicited responses 14 percent of the time. No responses were elicited when the helicopter was beyond 350 feet (105m) vertical elevation. The authors indicated that "short duration, single pass, single aircraft overflights had little effect on spotted owls." (Helicopters are not flown in the Okanogan and Roosevelt MOAs.)

The authors noted that these distance-response thresholds were similar to those found in other studies of raptor species exposed to aircraft overflights. The authors reported that, of all the flushes that occurred during nesting season, none were elicited during incubation or nesting phases; they also noted several other studies that reported the reluctance of raptors to leave active nests. Circling, hovering, and landing were not included in the experiments of Delaney et al. (1999). Owls in the study also appeared to habituate to helicopter noise.

A more recent study examined the impact of fixed-winged military aircraft on the Mexican spotted owl (Johnson and Reynolds 2002). Behavioral responses of day-roosting owls were

recorded in response to low-altitude jet (F-16) overflights at 1,500 feet (460m) in Colorado. Each trial consisted of three sequential overflights of each owl, each overflight at greater speed and sound level – “enroute cruise” (about 300 knots), “2nd power setting” (about 425 knots), and “higher-power setting” (about 520 knots). At “enroute cruise” sound duration was 15.5 seconds at 78 dBA; for the “2nd power setting,” the duration was 19.0 second at 92 dBA; and for the “higher-power setting,” the duration was 22.5 second at 95 dBA. Results were as follows:

- During the “enroute cruise,” one (14.3 percent) owl showed no response, four (57.1 percent) showed low responses (slow head turn), and two (28.6 percent) showed intermediate responses (sudden head turn toward origin of the sound).
- For the “2nd power setting,” two (28.6 percent) owls showed no response, three (42.8 percent) owls showed low response, and two (28.6 percent) showed intermediate response.
- For the “higher power setting,” two (28.6 percent) showed no response, two (28.6 percent) showed low response, and three (42.8 percent) owls showed intermediate response.

None of the owls showed high response (flush) during any of the fly-by periods. The authors indicated that “owl responses to low altitude F-16 overflights did not exceed, and were often less than, responses to naturally occurring events” (e.g., thunder).

Although the Mexican spotted owl ranges across the arid southwest, it is a *Strix occidentalis* subspecies closely related to the northern spotted owl. Similar to the northern subspecies, the Mexican subspecies also inhabits forested mountains and canyonlands, with greatest owl densities found in unlogged coniferous forests with dense canopies (greater than 80 percent cover) (Ganey and Balda 1989). For these reasons, responses of the northern spotted owl to aircraft disturbance are assumed to be similar to those displayed by the Mexican spotted owl.

Navy training overflights in the Okanogan MOA would likely generate short-term behavioral or physiological reactions, but the general health of individual northern spotted owls would not be compromised. There would be no population- or community-level effects. A relatively small portion of overall spotted owl habitat is located in the southwest corner of Okanogan MOA segment C, many miles to the west (Figure 1). There is no potential for northern spotted owls to be exposed to 92 dB of noise associated with Navy training flights; based on a lateral separation of four nautical miles (7 km), the loudest sound would be 62.6 dBA, far below the 92 dB level of concern for this species (Table 2). However, lower levels of aircraft noise may be heard by this species.

Few aircraft strikes to birds are expected to occur in the NWTRC Study Area (see section 3.10 Birds in the EIS/OEIS). From a Navy-wide perspective, the numbers of bird mortalities that occur annually would not affect the northern spotted owl population.

Navy underwater detonation activities are not conducted in critical habitat areas of the northern spotted owl. In addition, weapons are not fired in the range of the northern spotted owl; as such, ordnance use, weapons firing, and expended materials would have no effect on the northern spotted owl or its critical habitat.

These conditions would result in a *may affect, not likely to adversely affect*, finding under Section 7 of the ESA. Because on-the-ground activities would not be involved, there would be no adverse impacts to designated critical habitat.

### Grizzly Bear

The National Park Service compiled several studies of the reaction of grizzly bears to aircraft (NPS 1994). Based on these studies, a run response was prompted by helicopters as low as 200 to 500 ft (60-150 m) and as high as 3,200 ft (975 m), and by fixed-wing aircraft at greater than 1,000 ft (305 m). No studies were reported that involved military jet aircraft. Studies reviewed indicate that adverse impacts that might occur would likely be greater if they occurred toward end of the denning season or during the first few weeks after emergence, i.e., March through May (Linnell et al. 2000; Haroldson et al. 2002; Podruzny et al. 2002; NPS 2009).

Approximately 3,000 events would take place each year over grizzly bear habitat in the NWTRC (i.e., Okanogan MOA) (Table 3). The resulting overflights range widely in location and altitude, and cover a geographic area of several thousand square miles. Thus, grizzly bears in the MOAs are exposed to distant, chronic, and intermittent aircraft noise of varying length and decibel level. However, the number of low-level flights (below 3,000 ft AGL) that would be capable of generating decibel levels in excess of 92 dB is limited to less than 600 events per year. These flights generally take place over river valleys as opposed to over mountainous terrain. Flying at levels below 500 ft AGL totals 20 to 30 hours per year, in 3 to 5 minute increments.

In the MOAs with flight paths down to 300 ft AGL in grizzly bear habitat (i.e., Okanogan segment B), aircraft would be well below important bear denning and rearing habitat (i.e., steep, rugged habitat above 6,500 ft). Areas most commonly used for low-altitude flights are about 30 nautical miles (56 km) laterally from high-quality grizzly bear habitat. Based on the modeled peak aircraft noise of 62.6 dBA at 4 nm (7 km) distance (Table 2), grizzly bears using spring forage habitats would be exposed to noise levels far below the 92 dB level of concern. The aircraft would be heard approaching and would not present a sudden onset disturbance. The duration of noise exposure, given the rate of travel of Navy jets, would be expected to be of less than one minute.

It is anticipated that aircraft overflight noise under the proposed action may affect the grizzly bear. Short-term behavioral or physiological reactions could be expected, such as looking up for the source of the noise. The general health of individuals would not be compromised. There would be no population or community-level effects. In addition to the studies and observations cited above, these conclusions are based on the following: grizzly bears in the Study Area are likely to be habituated to aircraft overflights, given the frequency of Navy training activities and the presence of two nearby airports; spring foraging areas are not approached during Navy training activities; and grizzly bears could be exposed to less than 63 dB of peak sound several times per year.

These conditions would result in a *may affect, not likely to adversely affect* finding under Section 7 of the ESA. Because on-the-ground activities would not be involved, there would be no adverse impacts to the grizzly bear recovery area habitat.

### Canada Lynx

Specific studies involving lynx reaction to aircraft could not be located; sources consulted included Gladwin et al. (1988a, b), Mancini et al. (1988), NPS (1994), Larkin (1996), ORNL (2000), AMEC (2005), and Radle (2007). Mancini et al. (1988) noted that, of the studies they reviewed, almost all of the animals exhibited a startle response to aircraft noise. Studies reviewed indicate that adverse impacts that might occur would likely be greater if they occurred toward end of the denning season or during the first few weeks after emergence, such as when the mother is moving offspring between natal and maternal den sites (Saunders 1961; Koehler 1990; Koehler et al. 1994; Mowat and Slough 1998; USFS 1999; and Ruggiero et al. 1999).

Just over 4,300 would take place each year over lynx habitat in the NWTRC (i.e., Okanogan and Roosevelt MOAs) (Table 1). The resulting overflights range widely in location and altitude, and cover a geographic area of several thousand square miles. Because lynx habitat is scattered across much of the overflight area, Canada lynx in the MOAs are exposed to distant, chronic, intermittent aircraft noise of varying length and decibel level. However, the number of low-level flights (below 3,000 ft AGL) that would be capable of generating decibel levels in excess of 92 dB is limited to less than 875 events per year. These flights generally take place over river valleys as opposed to over mountainous terrain.

As described in the "Affected Environment" section, Canada lynx habitat in the MOAs occurs at elevations above 4,000 feet (1,220 m), in large spruce-fir forests. Low-altitude training activities generally occur above river valleys and avoid mountainous terrain. Thus, aircraft would be well below denning areas throughout the year. Areas most commonly used for low-altitude flights are estimated to occur approximately 4 nm (7 km) from appropriate lynx habitat. As presented in Table 2, the peak Navy aircraft sound exposure for the lynx would be 62.6 dBA. The aircraft would be heard approaching and would not present a sudden onset disturbance. The duration of noise exposure, given the rate of travel of Navy jets, would be expected to be of less than one minute.

It is anticipated that aircraft overflight noise under the proposed action may affect the Canada lynx. Short-term behavioral or physiological reactions could be expected, but the general health of individuals would not be compromised. There would be no population- or community-level effects. In addition to the studies and observations cited above, these conclusions are based on the following: Canada lynx in the Study Area have become habituated to aircraft overflights given the frequency of Navy training activities and the presence of two nearby airports; denning habitats are not used during Navy training activities; and Canada lynx could be exposed to approximately 63 dB of peak sound several times per year.

These conditions would result in a *may affect, not likely to adversely affect* finding under Section 7 of the ESA. Because on-the-ground activities would not be involved, there would be no adverse impacts to Canada lynx designated critical habitat.

### Gray Wolf

Few studies were located that dealt specifically with the impact of aircraft noise on wolves. Mancini et al. (1988) noted that wolves exhibit a startle or run response to aircraft, but that the noise impact on carnivorous mammals "has been virtually ignored." Klein (1973), as reported in Larkin (1999), noted that "wolves appeared least disturbed by low-flying aircraft of any of the

large mammals observed. Currently, aircraft are common in the [arctic] study areas, and wolves have apparently rapidly adapted to the discontinuance of the threat from this source. Other studies speculated on the possible impacts on wolves of caribou as a prey source when caribou are adversely affected by aircraft noise (e.g., running, especially by cow-calf pairs). Studies indicate that mother and offspring move between natal and other dens, and that natal dens abandoned at about 1.5 months after birth, i.e., July-August (Cluff et al. 2002; Alfredeen 2006; NatureServe 2009). Presumably adverse impacts that might occur would likely be greater if they occurred during these periods.

The Lookout Pack is located west of I-97 in Okanogan MOA segment B. Overflights as low as 300 ft AGL are allowed in Okanogan B, but few flights at that altitude occur because of the presence of two civilian airports (Methow Valley State Airport, Twisp Municipal Airport) and the proximity of the Methow Valley floor (State Route 20; Twisp River) to the MOA boundaries.

Okanogan C is more commonly used for low-altitude flights; it is over 30 nm (56 km) from the Lookout Pack home range. Thus, aircraft would be some distance from known wolf home range. As presented in Table 2, the peak Navy aircraft sound exposure for the lynx would be well below the 62.6 dBA anticipated at 4 nm (7 km) distance. If Navy aircraft were audible to gray wolves, the noise would be distant, the aircraft would be heard approaching, and would not present a sudden onset disturbance.

It is anticipated that aircraft overflight noise under the proposed action may affect the gray wolf. Short-term behavioral or physiological reactions could be expected, but the general health of individuals would not be compromised. There would be no population or community-level effects. In addition to the studies and observations cited above, these conclusions are based on the following: gray wolves are reported to habituate to aircraft noise, and given the history and frequency of Navy aircraft training in the Study Area, this is anticipated to occur; the wolf home range areas are not used during low-altitude training activities as training below 3,000 ft AGL takes place 30 nm (56 km) from their home range; and, noise levels from aircraft overflights in the home range would be well below the 63 dB anticipated at 4 nm (7 km) from the source.

These conditions would result in a *may affect, not likely to adversely affect* finding under Section 7 of the ESA. Because on-the-ground activities would not be involved, there would be no adverse impacts to the Lookout Pack home range.

### Woodland Caribou

Most of the literature on the behavior of caribou in response to aircraft involved barren-ground caribou (e.g., NPS 1994). Harrington and Veitch (1991, 1992) studied the impact on woodland caribou of low level overflights of military aircraft near Goose Bay, Labrador, Canada. In 1986 and 1987, the locations of radio-collared caribou were coordinated with aircraft flight paths. In 1988, the design was changed so that the flights were not directed (i.e., neither toward or away from collared caribou) to obtain a "normal" distribution of exposure to low-level flying. Aircraft included F-4, RF-4, F-16, F-18, and Tornado. Flights within 100 ft (30 m) of the ground were permitted; speeds were typically 480 to 515 miles per hour (775 to 825 km per hour). The maximum recorded noise level was 131 dB for a direct overpass at 100 ft (30 m). The low-level training season extended from mid-April through October, and flight frequency ranged from fewer than 10 events per month in some areas to 250 events per month in others. The authors

noted that the number of low-level training flights increased from 1,500 in 1981 to over 6,000 in 1988, and that training was projected to reach a maximum of 18,000 per year in 1996 (1991). The 1991 study described one area as “heavily glaciated hills with only low boulders and alpine tundra gave little protective cover,” while the other was a “relatively flat valley.” The authors also noted that the topography and the boundaries of the low-level flying terrain constrained the distribution of the training.

The authors noted that the usual response of woodland caribou to jet overflights was a startle reflex, followed by bolting and running. In 1991, the authors reported that high overpasses [330 ft (100 m)] or wide overpasses [over 250 ft (75 m)] caused detectable responses 38 percent of the time, while direct overflights [99 ft (30 m) above ground or within 165 ft (50 m) of the animals] resulted in overt responses 88 percent of the time. One or more aircraft were involved in each pass. The authors also noted that the caribou “began slowing almost immediately” and that the average time from beginning to end of movement was nine seconds. If the animals had been feeding, standing or walking prior to the overpass, they resumed similar behavior within the next minute. Maximum distance traveled during the startle-run response was 50 to 65 ft (15 to 20 m). In 1991, the authors reported that caribou responded more strongly to helicopter overflights than to jets, although the rate of approach, the sequence of jet vs. helicopter, and the prior experience of the caribou with either aircraft all differed. The 1992 study indicated increased caribou calf mortality correlated with aircraft overflights.

Circumstances in the Okanogan and Roosevelt MOAs would compare to the conditions described by Harrington and Veitch (1991, 1992) in that the aircraft noise and speed levels would be similar. Conditions that would differ include the following.

- The terrain in the Canadian study was open and tundra-like, lacking the sound attenuation characteristics of the mountainous and heavily wooded Study Area.
- Aircraft in the study flew lower, more frequently, and were concentrated in a smaller geographic area than the Okanogan and Roosevelt MOAs.
- Flights were directed specifically at known caribou locations and populations; the Study Area has sparse and dispersed populations of caribou.

Under the proposed action, woodland caribou would not likely be exposed to the decibel level or close-proximity disturbance documented in the Harrington and Veitch study. The dispersed nature of overflights, large area available for training activities, and varied nature of training methods would not produce concentrated effects on the woodland caribou population in the PACNW OPAREA. However, exposure to low levels of chronic aircraft noise from Navy activities and two regional airports may contribute to noise habituation of this species.

Based on these comparisons, impacts would generate short-term behavioral or physiological reactions, but the general health of individuals would not be compromised. There would be no population- or community-level effects. These conditions would result in a *may affect, not likely to adversely affect* finding under Section 7 of the ESA. Because on-the-ground activities would not be involved, there would be no adverse impacts to woodland caribou habitat.

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**Wauer, Brian D**

**From:** Mosher, John G CIV COMPACFLT N01CE1JM [john.g.mosher@navy.mil]  
**Sent:** Monday, February 08, 2010 11:36 AM  
**To:** Kevin\_Shelley@fws.gov  
**Cc:** Hart, George A CIV Navy Region NW, N40; Kler, Kimberly H CIV NAVFAC NW, EV1; John\_Grettenberger@fws.gov; Marc\_Whisler@fws.gov  
**Subject:** RE: NWTRC EIS Consultation  
**Attachments:** NWTRC Response to FWS BE Amendment Comments - 05 Feb 10.docx  
**Signed By:** john.g.mosher@navy.mil

Kevin - I understand you are still involved in the Keyport EIS consultation, but wanted to get you the attached responses to some of your previous comments on the NWTRC EIS BE amendment. Quite a bit of Navy discussion when into these subjects and how the information should be incorporated into the BE. I feel we hit your key questions here, but suspect these responses may generate some more questions on your part. I cut your comments out of your original e-mail, our responses and some additional info is in red font.

I would like to propose a meeting to go over the issues as soon as is mutually convenient, and I'll follow up with phone call to see how things look for you. Thanks.

John Mosher  
US Pacific Fleet  
Northwest Environmental Planner  
360-257-3234

-----Original Message-----

**From:** Kevin\_Shelley@fws.gov [mailto:Kevin\_Shelley@fws.gov]  
**Sent:** Tuesday, November 24, 2009 12:34  
**To:** Mosher, John G CIV COMPACFLT N01CE1JM  
**Cc:** Hart, George A CIV CNRNW, N40BA; Kler, Kimberly H CIV NAVFAC NW, EV1; John\_Grettenberger@fws.gov; Marc\_Whisler@fws.gov  
**Subject:** Re: NWTRC EIS Consultation

As you indicated John, the Navy Keyport consultation is occupying all of my time for the "moment," but I expect my supporting role as the staff POC and technical lead in that consultation should diminish significantly by mid December. Until then, I will have significant constraints on my time and I don't expect to devote much to the NWTRC consultation. However, after mid December, the NWTRC is my top priority. Unlike the Keyport Consultation, I am the project lead for NWTRC, so it will receive my full attention as such.

In regards to your second question, I want to confirm that the USFWS has issued a response letter (attached) on Nov. 18, officially initiating formal consultation. That's not to say we are just starting consultation, but it simply establishes the start date (Nov. 18), as required by the regulations implementing Sec. 7 of ESA. At this moment, I am not able to give you an expected date of completion. It is my desire to do so the moment I can due to the critical nature of the Navy's mission. I cannot overstate the sense of urgency with which the USFWS is approaching the NWTRC consultation.

Your offer to help me work through the many facets of the Navy's training will help me to efficiently and effectively do my job. In particular, your close involvement, along with George and the other members of your team, may also prove critical to efficiently exploring any fine-tuning of the training ops to reduce the magnitude of some of the more critical stressors.

Regardless of the status or importance of the Keyport consultation, I will look over the Navy's response to my questions once they arrive. Perhaps this would be a good opportunity to get acquainted and have at least a quick discussion on the additional information - again, this can occur even if it arrives before mid Dec.

Hopefully this addresses your informational needs to advise the Navy leaders. Feel free to give me a call if you think I can be of any additional help.

(See attached file: 2009\_F\_0104\_Acceptance Ltr.pdf)

Kevin Shelley  
Senior Fish and Wildlife Biologist

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11/24/2009 10:24 AM

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cc  
"Hart, George A CIV CNRNW, N40BA"  
<george.hart1@navy.mil>, "Kler,  
Kimberly H CIV NAVFAC NW, EV1"  
<kimberly.kler@navy.mil>  
Subject  
NWTRC EIS Consultation

Kevin - I realize you are quite busy right now with the Navy Keyport EIS consultation, but just wanted to touch bases on a couple of points. I'm the Pacific Fleet Project Manager for the NWTRC EIS, and am working closely with George Hart and others for the USFWS consultation piece.

We are working to address the questions you sent on our amendments to the BE and should have you responses shortly. I would also like to second George's offer to meet with you whenever is good to go over remaining issues and questions.

I would like to confirm it, but as I understand, you are prioritizing your workload to address the Keyport consultation first, before working on the NWTRC EIS consultation and BO. Do you have any estimation on when you expect to get to the NWTRC EIS? I am asking, as I need to be able to answer to the Navy organization about some of our scheduled dates. Specifically, I am scheduled to brief Navy leaders on 8 December, and we have planned to submit the Final EIS to EPA for release in the Federal Register on 11 December. I certainly do not believe we will have completed our consultation with USFWS by then, but would like to indicate where we stand. This may of course dictate changes to our schedule.

I know you received the address to the Environmental Officer for Pacific Fleet (my boss), and just wanted to confirm that USFWS intends to submit a letter discussing the consultation for the NWTRC EIS. Are there any specific issues that I can assist with regarding this letter and is the letter something we can expect soon?

I'm happy to discuss this with you on the phone if that is convenient.

Thank you.

Respectfully,

John Mosher  
US Pacific Fleet  
Northwest Environmental Planner  
360-257-3234

Questions and comments received from Kevin Shelley, USFWS (black font) and Navy responses (red font) for NWTRC EIS BE Amendment:

I have been reviewing the Navy's BE amendments for the subject action you recently transmitted to me. I have two questions of a more general nature that I would like a response to before I begin my more thorough analysis.

There are several references to the "no action" alternative in the text discussing the frequency and location of the acoustic stressors associated with sorties in the Okanogan and Roosevelt MOAs. Why is the "no action" alternative evaluated in the discussion of the species effects section? Since the "no action" alt is addressed in the effects section of the amendment, it follows that Table 1 in the amendment reflects the number of sorties in the "no action."

The Biological Evaluation is required to address the action selected for implementation by the proponent (the Preferred Alternative). Thus, the impacts described in the BE are those expected under the increased level of training activities described as the Preferred Alternative. The tables referring to current conditions (No Action Alternative) are provided to convey an understanding of the changes anticipated by the Navy.

References to the No Action Alternative included in the text were pulled directly from language in the Preliminary Final EIS, and have subsequently been removed from this amendment to the BE.

It seems to me that, at a minimum, the amendment should address the increases under the preferred alternative; at best it should address all three alternatives, as in the October 2008 BE. For example, the number of sorties for ACM exercises in Alt. 1 are 1,353 and under the preferred, 2,000 are proposed (Table 2-8 of the DEIS). How do these numbers relate to Table 1 in the amendment?

Total training events from Table 1 add up to 4,361 (2,985 + 1,376). Please note that we are changing the word sorties to events throughout this BE amendment, as the term sorties was used incorrectly (i.e. several training events can take place during one sortie or aircraft flight).

It is important to note that Table 2-8 of the DEIS includes more than just ACM events that are flown in Okanogan and Roosevelt MOAs; it also includes HARM Exercises under STRIKE WARFARE (STW). When you add these, you arrive at 5,000 (2,000 ACM + 3,000 HARM), but that is 639 more than the 4,361 from Table 1 in the amendment. These 639 are events that are flown in the Olympic MOA. Both ACM and HARM missions are depicted in the DEIS to occur in the Offshore and Inshore Areas. For aircraft events, these refer to all three MOAs and can also include the Darrington OPAREA, though in the case of ACM and HARM, no missions are flown in Darrington.

To Summarize:

From Table 1:

Okanogan events 2,985  
Roosevelt events 1,376  
 Total Okanogan and Roosevelt events 4,361

From Table 2-8 of the DEIS:

ACM events 2,000  
HARM events 3,000  
 Total events 5,000  
Olympic MOA - 639  
 Total Okanogan and Roosevelt events 4,361

So, the 2,985 Okanogan events (Table 1) plus the 1,376 Roosevelt events (Table 1) plus the 639 Olympic events (not specifically depicted on any table) = the 5,000 total events shown on Table 2-8 of the DEIS.

As you can see, this creates confusion for me as I set up my exposure analyses and confusion on my end can translate into delaying the issue date for the BiOp. Please clarify.

2. Sound Exposure Levels: I can't find the rationale in the text that explains scientific/biological basis behind reporting the sound levels for the various "platforms" at a 4nm distance.

The sound levels at 4 nm lateral distance reflects the anticipated lateral separation between the low altitude flight noise source (i.e., aircraft flying at 500 ft AGL in a river valley) and the receptor location such as lynx critical habitat. Within the MOAs, lynx critical habitat is located above the 4,000-foot topographic contour which in most cases is 5 nm or more from the centerline of the Columbia River valley in Okanogan MOA segment A/C and the Kettle/Columbia River valleys in Roosevelt MOA segment A/B. The training tactics that the aircraft fly for this type of training is to follow the river valley bottoms. The 4-nm lateral distance allows for as much as 1 nm lateral maneuvering toward either side of the valley centerline. An additional margin of standoff is provided by the vertical distance of 2,000 feet that the aircraft is flying below the lynx habitat.

These data appear to be essentially meaningless, biologically, when biological receptors (animals) [sic] will be at much shorter distances (reasonable worst case is nesting owls less than 300 meters from source when nesting in the forest canopy). I requested the source levels of the aircraft, but that was not provided for some reason. Again, I request source levels or levels at 300 m from source. Either works for me.

The above information is essential for the Service to complete the analysis for the BiOp. I can either use data from the Navy or the Service can use the best available data from other sources that we have access to for our analysis.

The sound levels at 300 m (1000 ft) are provided in the table below.

Only a small piece of spotted owl critical habitat is located in the southwest corner of Okanogan MOA segment A/B. This habitat area is approximately 40 nm west of the nearest commonly used terrain for low-level aircraft training (again, this is because of the tactic to follow river valley bottoms). Additionally, the location and terrain of this critical habitat limits the usefulness of this area for aircraft maneuvers. Specifically MOA boundaries are designated in order to limit interference with non-military aviation. Under most circumstances, military aircraft are not allowed beyond those boundaries while training. Therefore, because the area of segment A/B with spotted owl habitat is located in the corner of the MOA, potential aircraft maneuvers are limited, a situation not considered practical for combat training purposes. In terms of terrain, because of the peaks and ridgelines in the areas, the lowest level to which an aircraft would descend during ACM training would be approximately 10,500 ft MSL, some 1,500 feet above the 9,000-foot peaks and ridgelines. From this perspective, other areas in the MOAs, farther east are better suited to ACM training. Should HARMEX training be conducted in the southeast corner of segment A/B, it would occur at approximately 15,000 ft MSL.

The following tables will be added to the BE amendment.

**Table (#?). Predicted Sound Exposure Levels (dBA SEL) for EA-6B and EA-18G at 500 ft AGL and 4 nm Lateral Distance from Receptor\***

EA-6B	Descent (80% rpm)	Low Cruise (97% rpm)	Climb (100% rpm)
	74.2	51.1	63.9
EA-18G	Descent at 75% rpm	Low Cruise at 83% rpm	Climb at 96% rpm
	45.7	41.7	71.4

\*SEL in dBA at 59° F, 50% relative humidity, barometric pressure = 29.92" Hg, 450 knots true air speed (KTAS), NOISEMAP 6/7 database, level-versus-distance output, normal noise propagation algorithm.

Note: "Descent" is from 3,000 ft AGL to 500 ft AGL; "Low Cruise" is at 500 ft AGL; and "Climb" is from 500 ft AGL to 3,000 ft AGL.

**Table (#?). Predicted Sound Exposure Levels (dBA SEL) for EA-6B and EA-18G\***

	Vertical Distance (AGL) to Receptor			
	1,000 ft	3,500 ft	5,000 ft	7,500 ft
EA-6B Cruise (97% rpm)	108.1	96.6	92.7	87.8
EA-6B Climb (100% rpm)	110.8	98.5	94.2	88.7

<b>EA-18G Cruise (83% rpm)</b>	102.5	89.5	85.1	79.5
<b>EA-18G Climb (96% rpm)</b>	114.1	102.4	98.4	93.5

\*SEL in dBA at 59° F, 50% relative humidity, barometric pressure = 29.92" Hg, 450 knots true air speed (KTAS), NOISEMAP 6/7 database, level-versus-distance output, normal noise propagation algorithm.

Note: 3,500 ft AGL is for owl critical habitat at 7,000 ft MSL; 5,000 ft AGL is for owl critical habitat at 5,500 ft MSL; and 7,500 ft AGL is for owl critical habitat at 3,000 ft MSL.

In addition, please provide any information you have on the SELCalc2 model computations: model purpose and outputs, inputs, parameters, assumptions, sensitivity analysis, author, etc.). I assume from the (AFCEE 2009) citation, this is an Air Force product. Was the model run for the Navy by Air Force personnel? Who ran the model and who has the outputs? I'd like to see the write-up of the results of the model run(s). The amendment provided no supporting information on the applicability of the model for the purposes we have here in this exposure analysis. In the absence of this information, the Service has no compelling reason to accept it.

Tables (#? and #?) provide estimates of sound exposure levels from various aircraft at various altitudes during various maneuvers. The acoustical data provided in the tables represent the output of the SELCalc2 aircraft noise analysis model (AFCEE 2009) conducted by Rich Melaas, Navy Region Northwest Regional Program Director for Range Management/Naval Air Station Whidbey Island Range Air Installations Compatible Use Zones (RAICUZ) (Melaas, U.S. Navy, pers. comm. 2009). The data reflect decibels in the type of format and using the noise descriptor as selected by the modeler.

The purpose of the SELCalc2 aircraft noise level prediction model is to predict point sound levels for various types of DOD aircraft. Output can be SEL, SENEL,  $L_{max}$ , EPNL,  $L_{eq}$ , DNL, and  $L_{DNR}$  in either tabular or graph form with or without the one-third octave band data. Inputs are aircraft type, power type and configuration, power in %N2 or as appropriate per type aircraft, airspeed in knots true, air temperature, relative humidity, number of day-time operations, number of night-time operations, type of noise descriptor to display data for, vertical distance above receptor, lateral distance from receptor, lateral attenuation model to be used, soft or hard topography, type of output desired, and noise propagation algorithm to be used. The output type is set by the user as a single or cumulative number, table, graph of SEL vs. distance, and as Omega10 one-third octave band decibel data. Assumptions used for PFEIS dBA SEL calculations are as stated under each table.

The SELCalc2 model is approved for use by the Federal Interagency Committee on Aviation Noise (FICAN). Members of FICAN include the Department of Defense, the Department of the Interior, the Department

of Transportation, the Department of Housing and Urban Development, the National Aeronautics and Space Administration, and the U.S. Environmental Protection Agency ([www.fican.org](http://www.fican.org)). The model can be used to determine SEL values for receptors at a point relative to the aircraft noise source based on standard noise modeling input data and variables.

**Wauer, Brian D**

**From:** Mosher, John G CIV COMPACFLT N01CE1JM [john.g.mosher@navy.mil]  
**Sent:** Friday, March 12, 2010 11:39 AM  
**To:** Kevin\_Shelley@fws.gov; john\_grettenberger@fws.gov; carolyn\_scafidi@fws.gov; jeff\_krupka@fws.gov  
**Cc:** Kler, Kimberly H CIV NAVFAC NW, EV1; Hart, George A CIV Navy Region NW, N40; Melaas, Richard L CIV NAS WHIDBEY ISLAND WA; Sodano, Gerald T CIV NAS Whidbey Island, N32; 'Wauer, Brian D'  
**Subject:** RE: NWTRC EIS Consultation Info  
**Attachments:** Aircraft Transit Routes to MOAs.doc; NASWI Runway Map.ppt  
**Signed By:** john.g.mosher@navy.mil

All - Here's the description of the procedures and routes used to get to the MOAs and a map showing the orientation of the NAS Whidbey Island runways.

-John M.

-----Original Message-----

From: Mosher, John G CIV COMPACFLT N01CE1JM  
Sent: Friday, March 12, 2010 11:25  
To: 'Kevin\_Shelley@fws.gov'; 'john\_grettenberger@fws.gov'; 'carolyn\_scafidi@fws.gov'; 'jeff\_krupka@fws.gov'  
Cc: Kler, Kimberly H CIV NAVFAC NW, EV1; Hart, George A CIV Navy Region NW, N40; Melaas, Richard L CIV NAS WHIDBEY ISLAND WA; Sodano, Gerald T CIV NAS Whidbey Island, N32; 'Wauer, Brian D'  
Subject: NWTRC EIS Consultation Info  
Importance: High

All - Following up on our discussion from Monday, attached is a description of the aircraft training conducted in the NWTRC MOAs as well as the scanned aviation sectional chart indicating the locations of the low level training (description refers to the chart). I also sent the hard copy of the actual chart with markings to you Kevin in the regular mail yesterday, so that should be arriving soon.

In a separate e-mail I will also send the description of the routes used to get to the MOAs by the aircraft.

There is a fair amount of info in these write ups and maps for you to digest, but I feel it will greatly help us move forward in the consultation.

We discussed 3 pm on Monday, March 15th for our next phone meeting. Hopefully you will have a chance to look at these some before then, so we can cover any questions that may come up. As a reminder I'll be out of the office next week, so Kimberly will lead the discussion on the Navy side, and if any additional questions come up later next week, please include Kimberly so we can get you a timely response (in my absence).

John Mosher  
US Pacific Fleet  
Northwest Program Manager  
360-257-3234

**Navy Aircraft Transit Routes to & from NWTRC MOAs**

Navy aircraft proceeding to and from Naval Air Station (NAS) Whidbey Island to the Military Operating Areas (MOA) in the Northwest Training Range Complex (NWTRC) follow national airspace and Federal Aviation Administration (FAA) regulations and directional authority. These areas are not controlled or scheduled by the Navy. As national airspace, this airspace is utilized by all types of aircraft, including private, commercial and military. There are no specifically designated transit lines; however, in transiting in the general geographic direction of the MOAs from NAS Whidbey Island, Navy aircraft follow the directional and altitude parameters described below.

NAS Whidbey Island has four runways and possible directions of departure and arrival of aircraft. The runways are designated 07, 14, 25, and 32. These numbers represent the magnetic compass bearing heading that aircraft take off on or return on. Runway 07 has take off and return of aircraft heading in a direction of 070 degrees magnetic, 14 is 140 degrees, 25 is 250 degrees and 32 is 320 degrees (see runways map).

When taking off on each of these four compass directions and proceeding to the MOAs, aircraft proceed on these heading to a distance of 20 nautical miles from the runway at a minimum climb rate of 450 feet per mile. So at 4 miles out, aircraft are at a minimum altitude of 1,800 feet and at 5 miles they are at 2,250 feet. As this is a minimum required climb rate, it is noteworthy that on average Navy aircraft climb at a substantially greater rate than 450 feet per mile and are generally at a higher altitude than this minimum. Aircraft then continue to climb to 9,000 feet to achieve this minimum altitude before reaching 20 miles out. At this distance and altitude aircraft will then turn to a general heading toward the specific MOA for the scheduled training or as directed by FAA air traffic controllers.

OKANOGAN and ROOSEVELT MOA ROUTE:

Heading east-northeast, the majority of aircraft en route to the Okanogan and Roosevelt MOAs will continue to climb to 23,000 feet; however some aircraft occasionally get permission from the FAA to proceed at 15,000 feet. Aircraft will enter the MOAs via the Okanogan MOA at these altitudes (15,000 feet or above), then can proceed to the designated altitudes of the MOA and the specific training events scheduled.

Returning from the Okanogan and Roosevelt MOAs, aircraft will return via the Okanogan MOA A southern boundary 55 nautical miles north of Ephrata, WA, then turn west-southwest and proceed to 34 miles west of NAS Whidbey Island with the majority of aircraft returning at 22,000 feet; however aircraft occasionally get permission from FAA to return back at 16,000 feet. They will normally begin decent at about 32 miles out and cross 5 miles at 1,500 feet and 4 miles at 1,200 feet on the headings of the four runways

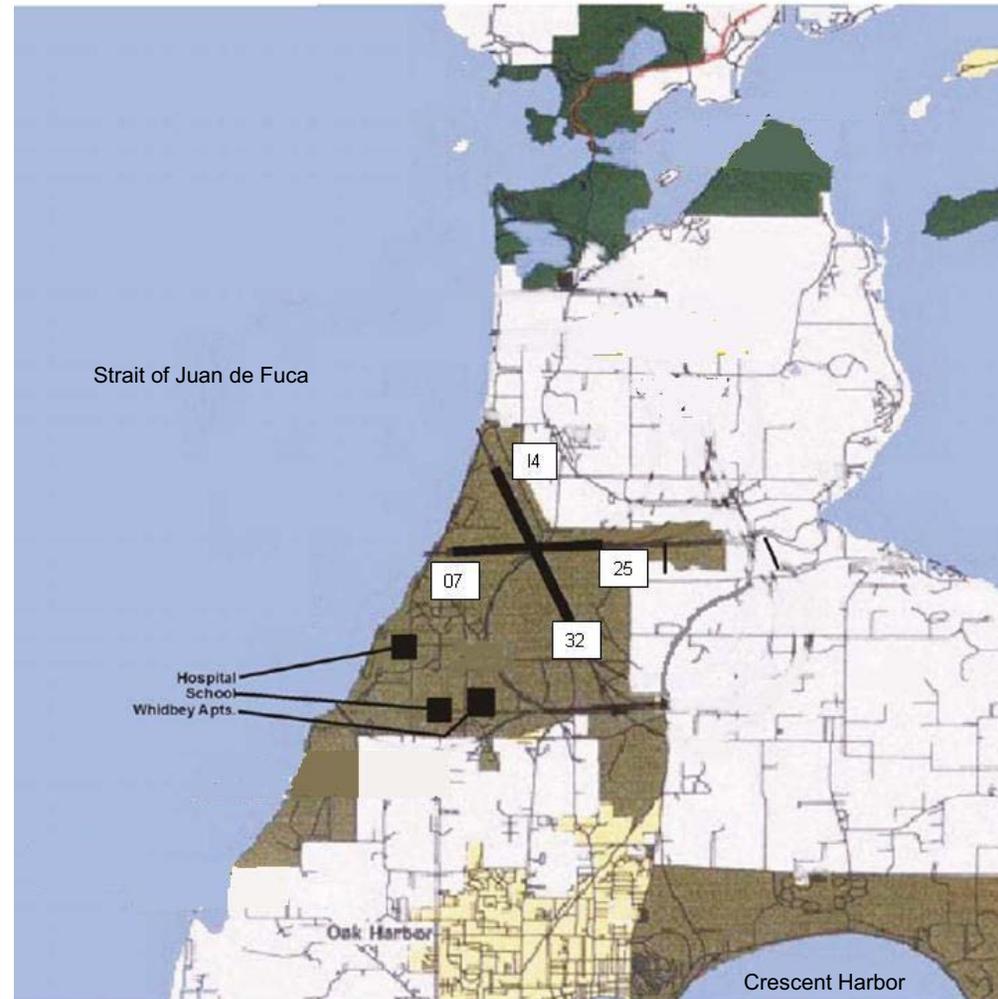
NOTE: The Crescent Harbor coastline is approximately 4-5 miles off the departure end of runway 14.

## NAS Whidbey Island Runways

### OLYMPIC MOA ROUTE:

Heading west-southwest, aircraft en route to the Olympic MOAs will continue to climb to 23,000 feet and proceed to the MOAs, entering at this altitude.

Returning from the Olympic MOAs, aircraft will exit to the east at 23,000 feet and proceed to 30 miles southwest of NAS Whidbey Island at 14,000 feet, then fly 34 miles west of NAS Whidbey Island at 14,000 feet and normally start decent into the air station no later than 24 miles out to cross 5 miles at 1,500 feet and 4 miles at 1,200 feet on the headings of the four runways.



**Wauer, Brian D**

**From:** Mosher, John G CIV COMPACFLT N01CE1JM [john.g.mosher@navy.mil]  
**Sent:** Friday, March 26, 2010 4:24 PM  
**To:** Kevin\_Shelley@fws.gov; john\_grettenberger@fws.gov; carolyn\_scafidi@fws.gov; jeff\_krupka@fws.gov  
**Cc:** Kler, Kimberly H CIV NAVFAC NW, EV1; Hart, George A CIV Navy Region NW, N40; Melaas, Richard L CIV NAS Whidbey Is, N3RM; Sodano, Gerald T CIV NAS Whidbey Is, N32; Wauer, Brian D  
**Subject:** NWTRC EIS Info on Low Level Flights

Kevin & all - During last Monday's (22 April) meeting you requested a break down for the number of low level training event distribution over the three river valleys that are used for the training.

Total Okanogan and Roosevelt MOA use is 860 training events annually on average.

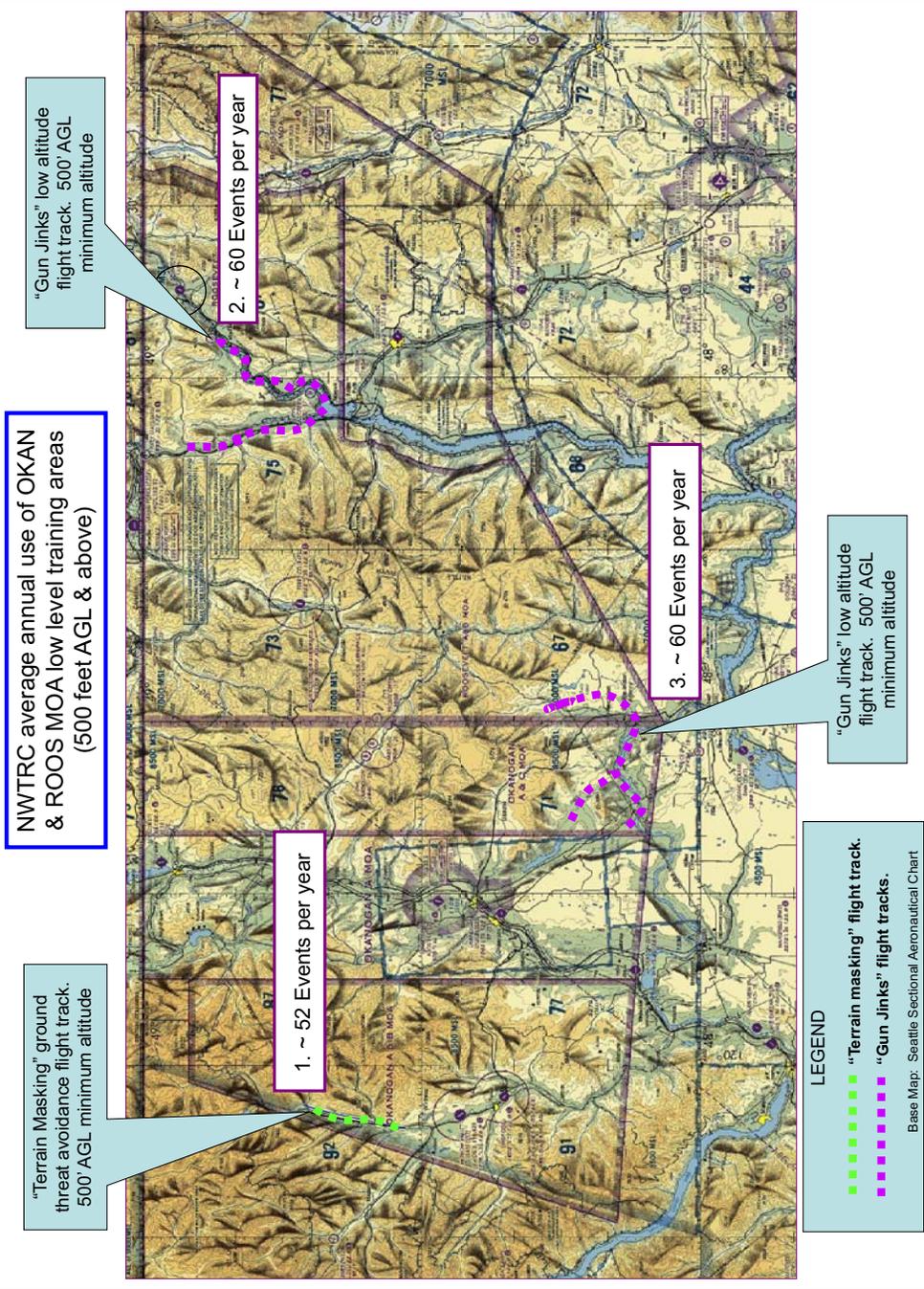
Total of low level flights (500 ft or above) that take place in Okanogan and Roosevelt MOAs is 20% of the 860 or 172 low level events annually in the 3 river valleys identified (see attached sectional chart). The approximate breakdown of the 3 areas are as follows:

Area 1 (Chewuch River Valley) is flown approximately 30% of the 172 events or 52 events per year.

Area 2 (Columbia River Valley) is flown approximately 35% of the 172 events or 60 events per year.

Area 3 (Kettle River/Columbia River wedge) is flown approximately 35% of the 172 events or 60 events per year.

John Mosher  
US Pacific Fleet  
Northwest Program Manager  
360-257-3234



**Wauer, Brian D**

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**From:** moshers@comcast.net  
**Sent:** Friday, April 16, 2010 1:52 PM  
**To:** Shelley, Kevin; Grettenberger, John  
**Cc:** Mosher, John G CIV COMPACFLT N01CE1JM; Kler, Kimberly H CIV NAVFAC NW, EV1; jere.deirsing@navy.mil  
**Subject:** NWTRC Mitigations for EOD Training

Kevin & John - I am sending this from my home e-mail address, as I am out of the office today.

I received the last of the necessary approvals from our Navy chain of command late yesterday to respond to you that we are in agreement with the two mitigations we discussed during our 5 April meeting. Specifically we agree to not conduct EOD underwater demolition training at the Naval Magazine Indian Island site (1 event per year was included in the draft EIS and BE). Instead that training event will be conducted at the Hood Canal training site, so there will now be up to a total of two events per year in Hood Canal. The other mitigation that we agree to is that EOD will utilize charge sizes of 1.5 lbs or less at the Hood Canal site (EIS/BE identified 2.5 lbs or less may be used). This will still allow the EOD Detachment at Bangor to meet their specific training requirements.

If in the future the need to again train at the Naval Magazine Indian Island site is identified, then the Navy will initiate consultation for those specific requirements.

As I mentioned, I am going to be out of the office next week, so if there are any questions with this please contact Kimberly Kler at 360-396-0927.

John Mosher  
US Pacific Fleet  
Northwest Program Manager  
360-257-3234

**Wauer, Brian D**

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**From:** Mosher, John G CIV COMPACFLT N01CE1JM [john.g.mosher@navy.mil]  
**Sent:** Friday, June 04, 2010 9:22 AM  
**To:** Kevin\_Shelley@fws.gov; john\_grettenberger@fws.gov; Marc\_Whisler@fws.gov; carolyn\_scafidi@fws.gov  
**Cc:** Kler, Kimberly H CIV NAVFAC NW, EV1; Hart, George A CIV Navy Region NW, N40  
**Subject:** Training with IEER Sonobuoys in NWTRC  
**Signed By:** john.g.mosher@navy.mil

**Importance:** High

Kevin & all - We got our answer back late yesterday on the training use of IEER sonobuoys in the NWTRC, and as discussed on Monday, it was confirmed that the Navy does not train with IEERs inside of 12 nautical miles from shore. This practice has been in place for many years and is simply a factor of where in-water conditions are desirable to support IEER training in the NWTRC. The Navy does not consider this a training mitigation or specific geographic restriction, but please consider this statement as the Navy's commitment that IEER sonobuoy training will not occur closer than 12 nm in the NWTRC.

Though it is not foreseen for the future, if training requirements necessitate a change to this practice, the Navy will contact FWS and consult as necessary.

Please let me know if you have questions with this. I will be in meetings this morning and will be traveling back to WA later today, but will follow up with a call today and we can further discuss this during our Monday meeting as well.

John Mosher  
US Pacific Fleet  
Northwest Environmental Program Manager  
360-257-3234



DEPARTMENT OF THE NAVY

COMMANDER  
UNITED STATES PACIFIC FLEET  
250 MAKALAPA DRIVE  
PEARL HARBOR, HAWAII 96860-3131

IN REPLY REFER TO:  
5090  
Ser N01CE1/1183  
19 Oct 09

5090  
Ser N01CE1/1183  
19 Oct 09

Loree Randall  
Federal Consistency Coordinator  
Shorelands & Environmental Assistance Program  
Department of Ecology  
P.O. Box 47600  
Olympia, WA 98504

Dear Ms. Randall:

Enclosure 1, a Coastal Consistency Determination, was prepared in compliance with Section 307 of the Coastal Zone Management Act (CZMA), which states that federal actions must be consistent to the maximum extent practicable with the enforceable policies of approved state coastal management programs.

The Northwest Training Range Complex (NWTRC) consists of numerous training areas in the Pacific Northwest, including airspace, sea space, subsurface space, and land areas. The Range Complex includes ranges that extend westward in the Pacific Ocean (to 250 nautical miles [nm] beyond the coast of Washington, Oregon, and Northern California) and east to Idaho. Portions of the Range Complex are located in or, in the case of airspace, over the following Washington coastal counties: Clallam, Grays Harbor, Island, Jefferson, Kitsap, Pacific, Skagit, and Whatcom (Enclosure 1, Table 1 and Enclosure 2, Figures 1, 2, and 3).

A detailed description of the Proposed Action is attached as Enclosure 2. The Proposed Action does not involve extensive changes to the NWTRC facilities, operations, or training capacities, nor does it involve an expansion of the existing NWTRC area. Rather, the Proposed Action would result in selectively focused but critical enhancements and increases in training that are necessary if the Navy is to maintain a state of military readiness commensurate with the national defense mission. The Proposed Action does not include any land-based or at-sea construction, modifications to existing infrastructure of the NWTRC, or changes in the geographic extent of the NWTRC's existing training areas.

As summarized in Enclosure 1, the Navy reviewed the Washington Coastal Zone Management Program to determine which enforceable policies are applicable to the Proposed Action and conducted an effects test to determine whether activities included in the Proposed Action would have reasonably foreseeable direct and/or indirect effects on a coastal use or resource. As identified in Enclosure 1, some of the enforceable policies are applicable to the Proposed Action and some elements of the action could have reasonably foreseeable coastal effects. Accordingly, this Coastal Consistency Determination has been prepared.

Chapter 3 of the EIS/OEIS identifies and analyzes potential adverse effects of the Proposed Action. Chapter 5 of the EIS/OEIS describes mitigation measures that the Navy implements to avoid and minimize impacts. Based on this analysis and implementation of mitigation measures, the Navy has determined that the Proposed Action would not result in significant impacts to Washington's coastal resources. Pursuant to the CZMA and based on the effects analysis conducted during the development of the EIS/OEIS, the Navy has determined that the Proposed Action for the NWTRC is consistent to the maximum extent practicable with the applicable enforceable policies of the Washington Coastal Zone Management Program and the associated counties' Shoreline Management Master Programs.

CONSISTENCY OF THE PROPOSED ACTION WITH ENFORCEABLE POLICIES OF THE WASHINGTON COASTAL ZONE MANAGEMENT PROGRAM

Enforceable Policy	Applicability/Consistency
Shoreline Management Act	Not Applicable
State Environmental Policy Act	Not Applicable
Ocean Resources Management Act	Consistent
Clean Water Act	Not Applicable
Clean Air Act	Not Applicable
Energy Facility Site Evaluation	Not Applicable
Council Law	

5090  
Ser N01CE1/1183  
19 Oct 09

If you have questions concerning this Coastal Zone Consistency Determination, please feel free to contact Mr. John Mosher at 360-257-3234, e-mail: john.g.mosher@navy.mil, or Ms. Kimberly Kler at 360-396-0927, e-mail: Kimberly.kler@navy.mil.

Sincerely,



D. A. McNAIR  
Captain, U.S. Navy  
Deputy Fleet Engineer  
By direction

- Enclosures: 1. Coastal Zone Consistency Determination  
2. Proposed Project Description

**ENCLOSURE 1: COASTAL ZONE CONSISTENCY DETERMINATION FOR FEDERAL ACTIVITIES, DEPARTMENT OF THE NAVY, NORTHWEST TRAINING RANGE COMPLEX, SEPTEMBER 2009**

**Project Description:** The Navy's Northwest Training Range Complex (NWTRC) consists of numerous training areas in the Pacific Northwest, including airspace, sea space, subsurface space, and land areas. The range complex includes ranges that extend westward in the Pacific Ocean (to 250 nautical miles [nm] beyond the coast of Washington, Oregon, and Northern California) and east to Idaho. Portions of the range complex are located in or, in the case of airspace, over the following Washington coastal counties: Clallam, Grays Harbor, Island, Jefferson, Kitsap, Pacific, Skagit, and Whatcom. A detailed description of the Proposed Action is attached as Enclosure 2.

This action under Coastal Zone Management Act (CZMA) §307(c)(1) is for activities which will take place within Washington's coastal zone, or which will affect a land use, water use or natural resource of the coastal zone. *(The coastal zone includes Clallam, Grays Harbor, Island, Jefferson, King, Kitsap, Mason, Pacific, Pierce, San Juan, Skagit, Snohomish, Thurston, Wahkiakum and Whatcom counties.)*

The action complies with the following enforceable policies of the Coastal Zone Management Program (CZMP):

**1. Shoreline Management Act (SMA):**

- Is outside of SMA jurisdiction (X)  
Is under current SMA application ( ) SMA# \_\_\_\_\_ Date Issued \_\_\_\_\_  
Has a valid Shoreline Permit ( )  
Has received an SMA Exemption ( )

**2. State Water Quality Requirements:**

- Does not require water quality permits (X)  
Is under current water quality application ( )  
Has received a short-term modification of water quality standards ( ) Mod# \_\_\_\_\_ Date Issued \_\_\_\_\_  
Has received a 401 Certification ( ) 401# \_\_\_\_\_ Date Issued \_\_\_\_\_

**3. State Air Quality Requirements:**

- Does not require air quality permits (X)  
Is under current application for air permit ( )  
Has received an air permit from the local air authority ( ) Air Permit # \_\_\_\_\_ Date Issued \_\_\_\_\_

**4. State Environmental Policy Act:**

- Is SEPA exempt (X)  
SEPA checklist submitted ( )  
NEPA decision has been adopted by local government to satisfy SEPA ( )  
SEPA decision issued ( ) SEPA# \_\_\_\_\_ Date Issued \_\_\_\_\_

**5. Energy Facility Site Evaluation Council:**

Does not involve an energy project (X)

**6. Ocean Resource Management Act:**

Use demands do not conflict or pose unacceptable environmental or social risk (X)

*Therefore, I certify that this action is consistent to the maximum extent practicable with the enforceable policies of Washington's approved coastal zone management program.*

(Signature) Ray M. Foster Date 10/19/09

**ENCLOSURE 1: COASTAL ZONE CONSISTENCY DETERMINATION FOR FEDERAL ACTIVITIES, DEPARTMENT OF THE NAVY, NORTHWEST TRAINING RANGE COMPLEX, SEPTEMBER 2009**

Table 1 describes the relationship of NWTRC training areas to Washington's coastal zone. Figures 1, 2, and 3 of Enclosure 2 show locations of the training areas.

The Navy reviewed the Washington Coastal Zone Management Program enforceable policies to determine their applicability to the Proposed Action. The findings of this review are summarized as follows:

- **Shoreline Management Act (SMA) (Chapter 90.58 Revised Code of Washington [RCW])**- The SMA is not applicable to the Proposed Action because: (1) it does not involve construction or exterior alteration of structures; dredging; drilling; dumping; filling; removal of any sand, gravel, or minerals; bulkheading; driving of piling; placing of obstructions; and (2) it would not interfere with the normal public use of the surface of waters overlying lands subject to the SMA at any stage of water level.
- **State Environmental Policy Act (SEPA) (Chapter 43.21C RCW)** - While the SEPA process is not applicable to federal actions, the Navy has prepared a Draft EIS/OEIS for the Proposed Action, including activities within or affecting the coastal zone, in accordance with NEPA and Executive Order 12114. The Navy's Draft EIS/OEIS is functionally equivalent to a SEPA EIS and it has been submitted to Ecology as a supporting document for this Consistency Determination.
- **Ocean Resources Management Act (ORMA) (Chapter 43.143 RCW)** - Navy training is considered an ocean use involving renewable resources. Therefore, some of the provisions of the ORMA are applicable to some elements of the Proposed Action. Specifically, 13 of the 25 General Ocean Use Guidelines (WAC 173-26-360 (7)) are applicable to portions of the Proposed Action that take place in the Pacific Ocean.
- **Clean Water Act/Washington Water Pollution Control Act (Chapter 90.48 RCW)** - Discharge permits are not required for the Proposed Action. Therefore, this enforceable policy, as it relates to Federal Consistency with the WCZMP, is not applicable to the Proposed Action.
- **Clean Air Act/Washington Clean Air Act (Chapter 70.94 RCW)** - Air emissions permits are not required for the Proposed Action. Therefore, this enforceable policy, as it relates to Federal Consistency with the WCZMP, is not applicable to the Proposed Action.
- **Energy Facility Site Evaluation Council Law (Chapter 80.50 RCW)** - This enforceable policy is a state-local permitting system for large thermal energy facilities, oil refineries which process petroleum transported over marine waters, and petroleum and natural gas pipelines. Consequently, it is not applicable to the Proposed Action.

The Navy conducted an effects test to determine whether activities included in the Proposed Action would have reasonably foreseeable direct and/or indirect effects on a coastal use or resource. As summarized in Table 2, reasonably foreseeable coastal effects could result from some of the proposed activities; therefore, this Coastal Consistency Determination has been prepared.

**TABLE 1: RELTIONSHIP OF NORTHWEST TRAINING RANGE COMPLEX TRAINING AREAS TO WASHINGTON'S COASTAL ZONE**

Training area	Coastal Zone Relationship	Coastal Counties	Comments
<b>Offshore Areas</b>			
Pacific Northwest Ocean Surface/Subsurface Operating Area (OPAREA)	Outside and inside	Clallam, Jefferson, Grays Harbor, Pacific	Most of the OPAREA is outside the coastal zone. Only those portions of the OPAREA from the Washington coast to 3 nm offshore are inside the coastal zone.
Warning Area 237 (W-237 [A – H, and JJ])	Outside		W-237 is Special Use Airspace (SUA) located over the Pacific Ocean greater than 3 nm off the Washington coast.
W-570	Outside		W-570 is SUA located over the Pacific Ocean greater than 3 nm off the Oregon coast.
W-93 (A/B)	Outside		W-93 is SUA located over the Pacific Ocean greater than 3 nm off the Oregon and northern California coasts.
<b>Inshore Areas</b>			
Chinook Military Operating Area (MOA) (A/B)	Over	Island and Jefferson	Chinook MOA is SUA over the Strait of Juan de Fuca and Admiralty Inlet.
Admiralty Bay Range (Restricted Area 6701 [R-6701] and Navy 7)	Over and Inside	Island	R-6701 is a Restricted Area over Admiralty Bay and Navy 7 is the surface and subsurface Restricted Area that lies under R-6701.
Okanogan MOA (A/B/C)	Outside		SUA over north-central Washington.
Olympic MOA (A/B)	Over	Clallam, Jefferson	SUA over Clallam and Jefferson Counties.
Roosevelt MOA (A/B)	Outside		SUA over north-central Washington.
Darrington OPAREA	Over	Whatcom, Skagit	Airspace over Whatcom and Skagit Counties.
Outlying Landing Field (OLF) Coupeville, including Alert Area 680 (A-680)	Contiguous	Island	OLF Coupeville is federally owned land excluded from the coastal zone. A-680 is Alert Area airspace centered on OLF Coupeville.
Seaplane Base Survival Area	Contiguous	Island	The Seaplane Base Survival Area is federally owned land excluded from the coastal zone located at Navy Seaplane Base/Crescent Harbor, NAS Whidbey Island.
Navy 3	Inside	Island	Surface and subsurface restricted area off the west coast of northern Whidbey Island.
<b>Explosive Ordnance Disposal (EOD)/Naval Special Warfare Ranges</b>			
Seaplane Base Demolition Training Range (DTR)	Contiguous	Island	Seaplane Base is federally owned land excluded from the coastal zone.
Crescent Harbor Underwater EOD Range	Inside	Island	Water range located in Crescent Harbor
OLF Coupeville	Contiguous	Island	OLF Coupeville is federally owned land excluded from the coastal zone.
Bangor EOD DTR	Contiguous	Kitsap	Bangor DTR is federally owned land excluded from the coastal zone located on NAVBASE Kitsap-Bangor.
Floral Point Underwater EOD Range	Inside	Kitsap	Floral Point Underwater EOD Range, located in Hood Canal, near NBK-Bangor, is active but seldom used.
Naval Magazine Indian Island Underwater EOD Range	Inside	Jefferson	Indian Island Underwater EOD Range, located adjacent to Indian Island, is active but seldom used.

**TABLE 2: SUMMARY OF NAVY EFFECTS TEST TO IDENTIFY ELEMENTS OF THE PROPOSED ACTION WITH REASONABLY FORESEEABLE COASTAL EFFECTS**

Naval Warfare Area	Activity	Areas	Reasonably Foreseeable Coastal Effects
Anti-Air Warfare	Air Combat Maneuvers	Okanogan, Olympic, and Roosevelt MOAs/ATCAs, Darrington OPAREA	No. Okanogan and Roosevelt are well outside the coastal zone and no coastal effects would occur. Olympic and Darrington are over the coastal zone, but the lower flight altitude is 6,000 and 10,000 feet MSL, respectively. Therefore, coastal effects are not reasonably foreseeable.
	Air-to-Air Missile Exercise	W-237	No. These exercises would take place outside the coastal zone, more than 12 nm offshore, and well above 3,000 ft. Explosions associated with live missiles would occur above 3,000 ft; therefore, coastal resources would not be exposed to impacts from explosions. The probability of an inert missile or shrapnel from a live missile directly striking a seabird or marine life is extremely low. Therefore, coastal effects are not reasonably foreseeable.
Anti-Surface Warfare	Surface-to-Air Gunnery Exercise	W-237, PACNW OPAREA	No. These exercises would take place outside the coastal zone more than 12 nm offshore. The probability of an inert round directly striking a seabird or marine life is extremely low. Therefore, coastal effects are not reasonably foreseeable.
	Surface-to-Air Missile Exercise	W-237, PACNW OPAREA	No. These exercises would take place outside the coastal zone and more than 12 nm offshore. Explosions associated with live missiles would occur in the air at relatively high altitudes; therefore, coastal resources would not be exposed to impacts from explosions. The probability of an inert missile or shrapnel from a live missile directly striking a seabird or marine life is extremely low. Therefore, coastal effects are not reasonably foreseeable.
	Surface-to-Surface Gunnery Exercise	W-237, PACNW OPAREA	No. These exercises would take place outside the coastal zone, more than 12 nm offshore, and use inert rounds. The probability of an inert round directly striking a seabird or marine life is extremely low. Therefore, coastal effects are not reasonably foreseeable.
	Air-to-Surface Bombing Exercise	W-237, PACNW OPAREA	Yes. These exercises would take place outside the coastal zone and more than 12 nm offshore. However, potential exists for seabirds and marine mammals to be exposed to explosive impacts; therefore, coastal effects could be reasonably foreseeable.
Anti-Submarine Warfare	Sink Exercise	W-237, PACNW OPAREA	Yes. These exercises would take place outside the coastal zone and more than 12 nm offshore. However, potential exists for seabirds and marine mammals to be exposed to explosive impacts; therefore, coastal effects could be reasonably foreseeable.
	Antisubmarine Warfare Tracking Exercise - MPA	W-237, PACNW OPAREA	Yes. This activity may occur inside or outside the coastal zone and may include the use of active sonobuoys, which introduce sound in the water and are not recoverable after use.
Anti-Submarine Warfare	Antisubmarine Warfare Tracking	W-237, PACNW OPAREA	No. These training events have historically been conducted a minimum of 50 nm from shore. Therefore, it is not reasonably foreseeable that coastal marine life would be

Navy Warfare Area	Activity	Areas	Reasonably Foreseeable Coastal Effects
	Exercise - Extended Echo Ranging		exposed to harmful sound from sonobuoys.
	Antisubmarine Warfare Tracking Exercise - Surface Ship	PACNW OPAREA	In the PACNW OPAREA, locally based surface ships do not routinely conduct ASW Tracking exercises. However, mid-frequency active (MFA) sonar is used occasionally (one to one and a half hours) during ship transits through the OPAREA. All surface ship MFA sonar use is documented in this training activity description. Historically, as well as projected for the future, this use of sonar takes place greater than 50 nm from shore. Therefore, it is not reasonably foreseeable that coastal marine life would be exposed to harmful sound from MFA.
	Antisubmarine Warfare Tracking Exercise - Submarine	W-237, PACNW OPAREA	No. These exercises occur outside the coastal zone and more than 3 nm offshore. Only passive sonar sensors are used and no torpedoes are fired during this exercise. Therefore, coastal effects are not reasonably foreseeable.
<b>Electronic Combat</b>	Electronic Combat Exercises	W-237A, Darrington OPAREA	No. These exercises involve aircraft overflights and vessel movements, but ordnance is not used. W-237A is outside the coastal zone. Darrington is over the coastal zone, but the lower flight altitude is 10,000 feet MSL. Therefore, coastal effects are not reasonably foreseeable.
<b>Mine Warfare</b>	Mine Countermeasures	Crescent Harbor, Indian Island	Yes. These exercises involve underwater detonation of explosives in restricted areas inside the coastal zone. Habitat, fish, other marine life, and birds could be affected by the underwater detonations. Therefore, coastal effects are reasonably foreseeable.
	Land Demolitions	Bangor DTR, Seaplane Base DTR	Yes. These exercises involve land detonation of explosives on federally owned lands excluded from the coastal zone. However, mobile species such as terrestrial wildlife and birds could be affected by the land detonations. Therefore, coastal effects are reasonably foreseeable.
<b>Naval Special Warfare</b>	Insertion/Extraction	Seaplane Base, OLF Coupeville, Crescent Harbor	Yes. These exercises occur on/over federally owned lands excluded from the coastal zone and on/over open waters inside the coastal zone. Mobile species such as terrestrial wildlife and birds could be disturbed by low-altitude helicopter overflights, parachute insertion, and foot traffic during these exercises. Therefore, coastal effects are reasonably foreseeable.
	NSW Training	Indian Island	Yes. These exercises occur on federally owned lands excluded from the coastal zone and in open waters inside the coastal zone. Mobile species such as terrestrial wildlife and birds could be disturbed by foot traffic (over-the-beach training and special reconnaissance) during these exercises. Use of the SEAL Delivery Vehicle in nearshore waters could also affect marine/estuarine species. Therefore, coastal effects are reasonably foreseeable.
<b>Strike Warfare</b>	HARM Exercise (Non-firing)	Okanogan, Olympic, and Roosevelt MOAs/AT CAAs, W-237	No. These exercises may occur over the coastal zone, but participating aircraft fly above 10,000 ft and the exercise is a non-firing event. Therefore, coastal effects are not reasonably foreseeable.
<b>Support Operations</b>	Intelligence, Surveillance, and	W-237, PACNW OPAREA	Yes. These exercises may occur in airspace over the coastal zone, but the lower flight altitude is typically above 3,000 ft. This activity may include the use of passive (listening)

Navy Warfare Area	Activity	Areas	Reasonably Foreseeable Coastal Effects
	Reconnaissance		sonobuoys, which are not recoverable after use.
	Unmanned Aerial System RDT&E and Training	R-6701 (Admiralty Bay), PACNW OPAREA, W-237	No. Unmanned aerial systems are typically flown above 3,000 ft. Some activities may occur in SUA over the coastal zone, but coastal effects are not reasonably foreseeable based on flight altitudes.



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000  
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

December 14, 2009

Ms. Kimberly Kler  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle, Suite 203  
Silverdale, WA 98315-1101

**RE: Federal Consistency – Northwest Training Range Complex**

Dear Ms. Kler:

The Department of Ecology, Shorelands and Environmental Assistance Program received your letter for a Coastal Zone Consistency Determination regarding the proposed enhancements and increases in training activities at the Northwest Training Range Complex. The Complex contains numerous training areas throughout Washington, including locations within Clallam, Grays Harbor, Island, Jefferson, Kitsap, Pacific, Skagit, and Whatcom counties.

Upon review of the Draft Environmental Impacts Statement and Consistency Determination document, Ecology agrees with your determination that the Proposed Action is consistent to the maximum extent practicable with the enforceable policies of Washington's Coastal Zone Management Program and will not result in any significant impacts to the State's coastal resources.

If you have any questions regarding this letter please contact Jessica Moore at (360) 407-7421.

Sincerely,

Brenden McFarland, Section Manager  
Environmental Review and Transportation Section  
Shorelands and Environmental Assistance Program

cc: Jessica Moore, Ecology



DEPARTMENT OF THE NAVY

COMMANDER  
UNITED STATES PACIFIC FLEET  
250 MAKALAPA DRIVE  
PEARL HARBOR, HAWAII 96860-3131

IN REPLY REFER TO:  
5090  
Ser N01CE1/1206  
29 Oct 09

Mr. Jay Charland  
Coastal State-Federal Relations Coordinator  
Oregon Coastal Management Program  
Department of Land Conservation and Development  
635 Capitol Street NE, Suite 150  
Salem, OR 97301-2540

Dear Mr. Charland:

Enclosed, please find the Department of the Navy's Negative Determination under the Coastal Zone Management Act (CZMA) of 1972 as amended (16 United States Code 1456), as implemented by the provisions of 15 Code of Federal Regulations Section 930.35, from the Oregon Department of Land Conservation and Development (DLCD) as required by Oregon Administrative Code 660, Division 35, Section 20. The Navy is proposing to conduct selected training exercises in portions of the Northwest Training Range Complex (NWTRC) off the Oregon coast, outside the Oregon Coastal Zone. This training is necessary to achieve and maintain Fleet readiness, as articulated in the Draft Environmental Impact Statement/Overseas Environmental Impact Statement (DEIS/OEIS) for the NWTRC. A copy of the DEIS/OEIS was previously provided to the DLCD in December of 2008.

Pursuant to Section 307(c)(1) of the federal CZMA, the Navy has determined that the Proposed Action would have no reasonably foreseeable effects to Oregon's coastal uses or resources. The basis for this "Negative Determination" are detailed in enclosure (1).

The Navy points of contact for this information are Ms. Kimberly Kler at 360-396-0927, e-mail: [kimberly.kler@navy.mil](mailto:kimberly.kler@navy.mil), or Mr. John Mosher at 360-257-3234, e-mail [john.g.mosher@navy.mil](mailto:john.g.mosher@navy.mil).

Sincerely,

D. A. McNAIR  
Captain, U.S. Navy  
Deputy Fleet Engineer  
By direction

Enclosure: (1) Negative Determination for Oregon

**Northwest Training Range Complex  
Coastal Zone Management Act  
Negative Determination for Oregon  
October 2009**

**Background and Location of Proposed Activities**

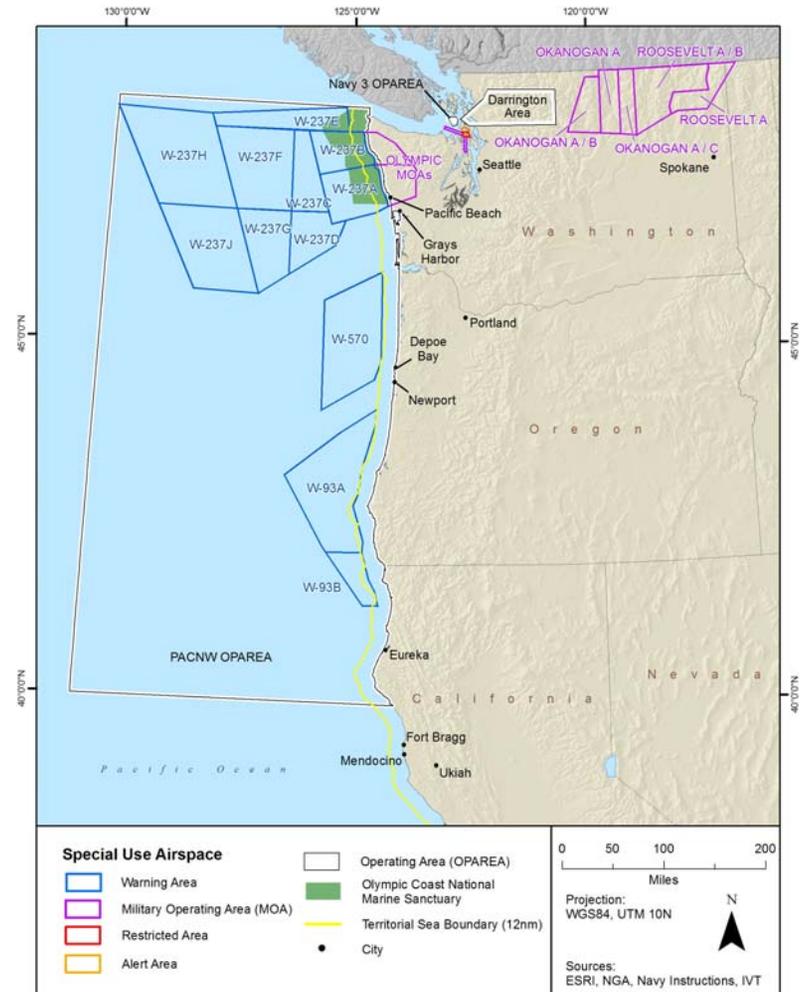
The United States Department of the Navy (Navy) is proposing to conduct selected training exercises in portions of the Northwest Training Range Complex (NWTRC) off the Oregon coast to achieve and maintain Fleet readiness. The NWTRC consists of numerous individual training areas in the Pacific Northwest. The range complex includes ranges that extend westward in the Pacific Ocean (to 250 nautical miles [nm] beyond the coast of Washington, Oregon, and Northern California) and east to Idaho (Figure 1).

This document, prepared pursuant to the requirements of the Coastal Zone Management Act (CZMA) (16 U.S.C. § 1452, et seq), provides information supporting the Navy's Negative Determination for the Proposed Action. This Negative Determination is submitted to the Oregon Department of Land Conservation and Development (DLCD) in accordance with the CZMA Federal Consistency Regulations (15 CFR Part 930) and the Oregon Coastal Management Program (OCMP). This Negative Determination addresses activities that would take place in portions of the NWTRC located off the Oregon coast.

The CZMA establishes National policy to protect resources in the coastal zone and requires coastal states to develop coastal management programs. The CZMA requires that each federal agency activity within or outside the coastal zone, that affects any land or water use or natural resource of the coastal zone, be carried out in a manner that is consistent to the maximum extent practicable with the enforceable policies of approved state management programs. Federal agencies are required to submit a Coastal Consistency Determination to coastal states when their activities would have reasonably foreseeable effects on coastal uses or resources. A Negative Determination may be submitted pursuant to 15 CFR § 930.35 if the federal agency's effects test indicates that coastal effects are not reasonably foreseeable.

As defined by the OCMP, Oregon's coastal zone extends from the Washington border on the north to the California border on the south; seaward to the extent of state jurisdiction as recognized by federal law (the Territorial Sea, extending 3 nm offshore); and inland to the crest of the coastal mountain range. The three exceptions occur where the basins of the Columbia, Umpqua, and Rogue Rivers lie predominantly inland of the crest of the coastal mountains. In these cases the coastal zone boundary crosses these rivers at Bradwood, Scottsburg, and Agness, respectively.

As shown in Figure 1, most of the NWTRC training areas are located off the coast of Washington, in Washington, or in Special Use Airspace over Washington, and most of the activities conducted under the Proposed Action would occur in those areas. Training areas located off the Oregon coast include a portion of the Pacific Northwest Operating Area (PACNW OPAREA); the southernmost portions of Warning Areas 237G and 237J (W-237G and W0237J); W-570; W-93A, and the northernmost portion of W-93B. A relatively small portion of the PACNW OPAREA, located in the Pacific Ocean from 0 to 3 nm off the Oregon coast, is the only NWTRC training area located in the Oregon coastal zone. However, all training activities would take place more than 12 nm off the Oregon coast and well outside of the Oregon coastal zone.



**Figure 1: Location of NWTRC Training Areas**

The Navy prepared a Draft Environmental Impact Statement/Overseas Environmental Impact Statement (DEIS/OEIS) for the Proposed Action within the NWTRC in accordance with the National Environmental Policy Act (NEPA) and Executive Order 12114 - *Environmental Effects Abroad of Major Federal Actions*. The DEIS/OEIS includes comprehensive descriptions of the Proposed Action and resources that could be affected by the action; a detailed analysis of the potential environmental consequences of the Proposed Action; and mitigation measures applicable to the Proposed Action. The DEIS/OEIS was submitted to DLCD in a letter dated December 29, 2008. A majority of the proposed activities addressed by the DEIS/OEIS take place in Washington or off the Washington coast. As such, many of the activities described in the DEIS/OEIS are not applicable to this Negative Determination. The following section presents a description of the Proposed Action for portions of the NWTRC located off the Oregon coast.

**Description of Proposed Action for Portions of the Northwest Training Range Complex Located off the Oregon Coast**

**Overview**

The Navy is proposing to conduct selected training exercises in portions of the NWTRC located off the Oregon coast. All training activities would take place more than 12 nm off the Oregon coast and well outside of the Oregon coastal zone. Specifically, training would take place in portions of the PACNW OPAREA located more than 12 nm off the Oregon coast; the southernmost portions of W-237G and W-237J; W-570; W-93A; and the northernmost portion of W-93B (Figure 1). The Proposed Action does not include any land-based or at-sea construction, modifications to existing infrastructure of the NWTRC, or changes in the geographic extent of the NWTRC's existing training areas, including those portions of the NWTRC located off the Oregon coast.

The type and amount of Navy training that takes place off the Oregon coast in the NWTRC is very limited. For example, the Navy uses W-570 about 32 hours per year and W-93A/B about 16 hours per year. Naval vessels homeported in Washington transit through portions of the PACNW OPAREA more than 12 nm off the Oregon coast, but these transits normally occur about 50 nm off the Oregon coast. It is estimated that less than 1% of the Navy's training time in the NWTRC is spent off the Oregon coast. Table 1 provides a summary of Navy training activities that may occur in the NWTRC off the Oregon coast and descriptions of these activities are provided below. It should be noted that the activities listed in Table 1 do not occur exclusively off the Oregon coast. As noted above, most of these events occur off the Washington coast.

**Anti-Surface Warfare (ASUW) Training**

Anti-Surface Warfare (ASUW) addresses combat (or interdiction) activities by air, surface, or submarine forces against hostile surface ships and boats.

**Surface-to-Surface Gunnery Exercise (GUNEX):** Surface gunnery exercises take place in the open ocean to provide gunnery practice for Navy ship crews. Exercises can involve a variety of surface targets that are either stationary or maneuverable. Gun systems employed against surface targets include the 5-inch, 76mm, 57mm, .50 caliber and the 7.62mm. A GUNEX lasts approximately one to two hours, depending on target services and weather conditions.

GUNEX events in the NWTRC normally take place off the Washington coast. However, naval vessels homeported in Washington may conduct this exercise in the PACNW OPAREA off the coast of Oregon while transiting to and from the Southern California Range Complex. These transits normally occur approximately 50 nm off the Oregon coast. Any GUNEX events taking place off the Oregon coast would be more than 12 nm from shore.

**Table 1: Summary of Navy Training Activities that May Occur In the Northwest Training Range Complex off the Oregon Coast**

Range Activity	Platform	System or Ordnance	Location
<b>ANTI-SURFACE WARFARE (ASUW)</b>			
Surface-to-Surface (S-S) Gunnery Exercise	CVN	20mm CIWS, 7.62mm, .50 cal	Portions of the PACNW OPAREA located more than 12 nm off the Oregon coast. Normally about 50 nm off the Oregon coast.
	DDG	57/54 BLP, 20mm, 7.62mm, .50 cal	
	FFG	76mm, 20mm, 7.62mm, .50 cal	
	AOE	20mm, 7.62mm, .50 cal	
Air-to-Surface (A-S) Bombing Exercise	P-3C	MK-82 (live), BDU-45 (inert)	Portions of the PACNW OPAREA located more than 12 nm off the Oregon coast.
	P-8	MK-82 (live), BDU-45 (inert)	
	P-3	MK-82, AGM-65 Maverick	
	FA-18	MK-82, MK-83, MK-84, SLAM-ER	
	EA-6B	AGM-88C HARM	
	EA-18G	AGM-88C HARM	
	SH-60	AGM-114 HELLFIRE	
	DDG	57/54	
	FFG	76mm	
	SSN	MK-48 ADCAP	
<b>ANTI-SUBMARINE WARFARE (ASW)</b>			
Anti-Submarine Warfare (ASW) Tracking Exercise - MPA	P-3C	Targets: SSN, MK-39 EMATT Sonobuoys: SSQ-53 DIFAR (passive) SSQ-62 DICASS (active) SSQ-77 VLAD, SSQ-36 BT	Portions of the PACNW OPAREA located more than 12 nm off the Oregon coast.
	P-8 MMA		
	P-8 MMA		
ASW Tracking Exercise - Surface Ship	DDG	SQS-53C MFA sonar	Portions of the PACNW OPAREA located more than 12 nm off the Oregon coast. Normally about 50 nm off the Oregon coast.
	FFG	SQS-56 MFA sonar	
ASW Tracking Exercise - Submarine	SSBN	BQQ-5 (passive only)	Portions of the PACNW OPAREA located more than 3 nm off the Oregon coast.
	SSGN	BQQ-5 (passive only)	
	P-3		
	EP-3		
	CVN		
	DDG		
	FFG		
	AOE		
SSGN			
SSBN			
<b>SUPPORT ACTIVITIES</b>			
Intelligence, Surveillance, and Reconnaissance (ISR)	P-3, EP-3, EA-6B, EA-18G	None	Greater than 12 nm off the Oregon coast in W-570 and W-93A/B.

**Air-to-Surface Bombing Exercises (BOMBEX A-S):** During Air-to-Surface Bombing Exercises (BOMBEX A-S), Maritime Patrol Aircraft (MPA) and other fixed-wing aircraft deliver bombs against simulated surface maritime targets, typically a smoke float. MPA is a term used to describe both the P-3C Orion aircraft and the P-8 Poseidon. The P-8, also referred to as the Multi-mission Maritime Aircraft (MMA), will begin to replace the P-3 by 2013.

MPA use bombs to attack surfaced submarines and surface craft that would not present a major threat to the MPA itself. A single MPA approaches the target at a low altitude. In most training exercises, it drops inert training ordnance, such as the Bomb Dummy Unit (BDU-45) on a MK-58 smoke float used as the target. Historically, ordnance has been released throughout W-237 (primarily off the Washington coast), just south of W-237 (more than 100 nm off the Oregon coast), and in international waters in accordance with international laws, rules, and regulations.

The Proposed Action for the entire NWTRC includes dropping 110 inert bombs and 34 explosive bombs per year. A very small percentage of the total ordnance (approximately 4 bombs per year) would be dropped off the Oregon coast because BOMBEX rarely occurs there. Any BOMBEX A-S events taking place off the Oregon coast would be more than 12 nm from shore. Each BOMBEX A-S can take up to 4 hours to complete.

#### **Anti-Submarine Warfare (ASW) Training**

Tracking Exercise (TRACKEX) for ASW trains aircraft, ship, and submarine crews in tactics, techniques, and procedures for search, detection, localization, and tracking of submarines with the goal of determining a firing solution that could be used to launch a torpedo and destroy the submarine. A typical unit-level exercise involves one ASW unit (aircraft, ship, or submarine) versus one target, usually a MK-30 Mobile ASW target, a MK-39 Expendable Mobile ASW Training Target (EMATT), or a live submarine. The target may be non-evading while operating on a specified track or fully evasive. Participating units use active and passive sensors, including hull-mounted sonar, towed arrays, variable depth sonar, and sonobuoys for tracking. If the exercise continues into the firing of a practice torpedo it is termed a Torpedo Exercise (TORPEX). The ASW TORPEX usually starts as a TRACKEX to achieve the firing solution.

**ASW TRACKEX Maritime Patrol Aircraft (MPA):** During these activities, a typical scenario would involve a single MPA dropping sonobuoys, from an altitude below 3,000 ft, and sometimes as low as 400 ft, into specific patterns designed for both the anticipated threat submarine and the specific water conditions. These patterns vary in size and coverage area based on anticipated threat and water conditions. Typically, passive sonobuoys will be used first, so the threat submarine is not alerted. Active sonobuoys will be used as required either to locate extremely quiet submarines, or to further localize and track submarines previously detected by passive sonobuoys. A TRACKEX-MPA usually takes two to four hours. No torpedoes are fired during this training activity. Any TRACKEX-MPA events taking place off the Oregon coast would be more than 12 nm from shore.

**ASW TRACKEX (Surface Ship):** In the PACNW OPAREA, locally based surface ships do not routinely conduct ASW Tracking exercises. However, mid-frequency active (MFA) sonar is used occasionally (one to one and a half hours) during ship transits through the OPAREA. All surface ship MFA sonar use is documented in this training activity description. Historically, as well as projected for the future, this use of sonar takes place greater than 50 nm from shore. All surface ship MFA sonar use off the Oregon coast would be more than 12 nm from shore and would likely be more than 50 nm from shore.

**ASW TRACKEX (Submarine):** ASW TRACKEX is a primary training exercise for Bangor-based submarines. Training is conducted at the intermediate level and occurs in the PACNW OPAREA. These activities involve P-3 aircraft approximately 30% of the time. Training events in which P-3s are used

typically last 8 to 12 hours. During these activities submarines use passive sonar sensors to search, detect, classify, localize and track the threat submarine with the goal of developing a firing solution that could be used to launch a torpedo and destroy the threat submarine. However, no torpedoes are fired during this training activity. Any TRACKEX-Submarine events taking place off the Oregon coast would be more than 3 nm from shore. As noted above, only passive sensors are used. MFA sonar is not used during this exercise.

#### **Support Activities**

**Intelligence, Surveillance, and Reconnaissance (ISR):** Intelligence refers to the information and knowledge obtained through observation, investigation, analysis, or understanding. Surveillance and reconnaissance refer to the means by which the information is observed. Surveillance is the systematic observation of a targeted area or group, usually over an extended time, while reconnaissance is a specific mission performed to obtain specific data about a target.

Off the Oregon coast, ISR training may be conducted by MPA in W-570 and W-93A/B (greater than 12 nm from shore). Activities typically last six hours and involve a crew of 11 personnel. P-3 aircrews use a variety of intelligence gathering and surveillance methods, including visual, infrared, electronic, and radar. EP-3 and EA-6B crews conduct ISR training as well, but to a lesser extent than P-3C crews. Basically, these exercises involve aircraft overflights and use of on-board systems by the crew. Ordnance or other expended materials such as chaff, flares, or sonobuoys are not used during ISR off the Oregon coast.

#### **Enforceable Policies and Consistency Review**

This section provides an overview of the enforceable policies of the OCMP and the findings of the Navy's Consistency Review. The purpose of the Consistency Review was to determine the applicability of the enforceable policies to the Proposed Action.

The CZMA requires that each federal agency activity within or outside the coastal zone, that affects any land or water use or natural resource of the coastal zone, be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved State management programs. The term "consistent to the maximum extent possible" means fully consistent with the enforceable policies of the management programs unless full consistency is prohibited by existing law applicable to the federal agency. The term "enforceable policy" means state policies which are legally binding through constitutional provisions, laws, regulations, land use plans, ordinances, or judicial or administrative decisions, by which a state exerts control over private and public land and water uses and natural resources in the coastal zone, and which are incorporated in the federally approved state coastal program.

The enforceable policies of the OCMP include three components:

- **The 19 Statewide Planning Goals** - These are Oregon's standards for comprehensive land use planning. The goals set requirements on how land use decisions are to be made by local governments and state agencies. Goal 19 – Ocean Resources is applicable to the Proposed Action and is discussed in more detail below. The remaining planning goals address land-based development, agricultural lands, forest lands, estuarine resources, coastal shorelands, beaches and dunes, and other planning topics that are not applicable to the Proposed Action.
- **City and County Comprehensive Land Use Plans** - In Oregon, state and local governments share the job of land use planning. Cities and counties prepare and adopt plans and implement ordinances that meet the statewide planning goals and that are coordinated with relevant programs of Oregon state agencies. The Proposed Action does not include land-based activities

or construction. Therefore, city and county land use plans are not applicable to the Proposed Action.

- **State Agencies and Natural Resource Laws** - The Oregon Legislature has adopted statutes in response to threats on coastal and statewide resources from uncontrolled development. These statutes include the Oregon Beach Bill, administered by the Oregon Parks and Recreation Department, and the Removal/Fill Law, administered by the Oregon Division of State Lands. The Proposed Action does not include any activities that are regulated under the Beach Bill or the Removal/Fill Law.

Statewide Planning Goal 19 – Ocean Resources is "to conserve marine resources and ecological functions for the purpose of providing long-term ecological, economic, and social value and benefits to future generations." To carry out this goal, all actions by local, state, and federal agencies that are likely to affect the ocean resources and uses of Oregon's Territorial Sea shall be developed and conducted to conserve marine resources and ecological functions for the purpose of providing long-term ecological, economic, and social values and benefits and to give higher priority to the protection of renewable marine resources (i.e., living marine organisms) than to the development of non-renewable ocean resources.

Prior to taking an action that is likely to affect ocean resources or uses of Oregon's Territorial Sea, state and federal agencies shall assess the reasonably foreseeable adverse effects of the action as required in the Oregon Territorial Sea Plan. State and federal agencies shall carry out actions that are reasonably likely to affect ocean resources and uses of the Oregon territorial sea in such a manner as to:

- Maintain and, where appropriate, restore the long-term benefits derived from renewable marine resources.
- Protect renewable marine resources (i.e., living marine organisms) from adverse effects of development of nonrenewable resources, uses of the ocean floor, or other actions.
- Protect the biological diversity of marine life and the functional integrity of the marine ecosystem.
- Protect important marine habitat, including estuarine habitat, which are areas and associated biologic communities that are: (1) important to the biological viability of commercially or recreationally caught species or that support important food or prey species for commercially or recreationally caught species; (2) needed to assure the survival of threatened or endangered species; (3) ecologically significant to maintaining ecosystem structure, biological productivity, and biological diversity; (4) essential to the life-history or behaviors of marine organisms; (5) especially vulnerable because of size, composition, or location in relation to chemical or other pollutants, noise, physical disturbance, alteration, or harvest; or (6) unique or of limited range within the state.
- Protect areas important to fisheries, which are: (1) areas of high catch (e.g., high total pounds landed and high value of landed catch); (2) areas where highly valued fish are caught even if in low abundance or by few fishers; (3) areas that are important on a seasonal basis; (4) areas important to commercial or recreational fishing activities, including those of individual ports or particular fleets; or (5) habitat areas that support food or prey species important to commercially and recreationally caught fish and shellfish species.
- Agencies, through programs, approvals, and other actions, shall: (1) protect and encourage the beneficial uses of ocean resources (such as navigation, food production, recreation, aesthetic

enjoyment, and uses of the seafloor, provided that such activities do not adversely affect the protected resources listed above); avoid, to the extent possible, adverse effects on or operational conflicts with other ocean uses and activities; and (2) comply with applicable requirements of the Oregon Territorial Sea Plan.

#### Effects Test

As summarized in Table 3, the Navy conducted an effects test to determine if activities included in the Proposed Action would have reasonably foreseeable direct and/or indirect effects on a coastal use or resource. The effects test was used to determine the need to prepare a Consistency Determination or a Negative Determination in accordance with CZMA and OCMP. The Navy's effects test considered the following and relied upon the detailed analyses provided in the NWTRC DEIS/OEIS:

- The spatial relationship of the proposed activities and training areas to Oregon's coastal zone.
- The definitions of coastal uses and resources.
- Relevant enforceable policies of the OCMP.
- The nature of the training operations included in the Proposed Action and their potential to adversely affect coastal uses and resources.

#### Conclusion

Based on the information in Table 3, the Navy has determined that the Proposed Action does not require a Consistency Determination because the activities would not have reasonably foreseeable direct or indirect effects on a coastal use or resource. Accordingly, this Negative Determination has been prepared.

**TABLE 3: SUMMARY OF NAVY EFFECTS TEST TO IDENTIFY ELEMENTS OF THE PROPOSED ACTION WITH REASONABLY FORESEEABLE COASTAL EFFECTS**

Navy Warfare Area	Activity	Areas	Reasonably Foreseeable Coastal Effects
Anti-Surface Warfare	Surface-to-Surface Gunnery Exercise	Portions of the PACNW OPAREA located more than 12 nm off the Oregon coast. Normally about 50 nm off the Oregon coast.	No. GUNEX events in the NWTRC normally take place off the Washington coast. However, naval vessels homeported in Washington may conduct this exercise in the PACNW OPAREA off the coast of Oregon while transiting to and from the Southern Oregon Range Complex. These transits normally occur approximately 50 nm off the Oregon coast. Any GUNEX events taking place off the Oregon coast would be more than 12 nm from shore. No impacts to marine life or wildlife that normally occurs in the coastal zone are expected based on the distance of the activity from the coastal zone. Therefore, coastal effects are not reasonably foreseeable.
	Air-to-Surface Bombing Exercise	Portions of the PACNW OPAREA located more than 12 nm off the Oregon coast.	No. These exercises would take place outside the coastal zone and more than 12 nm offshore. Historically, ordnance has been released throughout W-237 (primarily off Washington), just south of W-237 (more than 100 nm off Oregon), and in international waters in accordance with international laws, rules, and regulations. It is anticipated that no more than one BOMBEX event (dropping three inert and one explosive bomb) would occur off the Oregon coast per year. No impacts to marine life or wildlife that normally occurs in the coastal zone are expected based on the distance of the activity from the coastal zone. Therefore, coastal effects are not reasonably foreseeable.
Anti-Submarine Warfare	Antisubmarine Warfare Tracking Exercise - MPA	Portions of the PACNW OPAREA located more than 12 nm off the Oregon coast.	No. These exercises would take place outside the coastal zone and more than 12 nm offshore. Passive or active sonobuoys used during these exercises are not recoverable, would sink in deep waters well outside the coastal zone, and are not expected to drift into the coastal zone. No impacts to marine life or wildlife that normally occurs in the coastal zone are expected based on the distance of the activity from the coastal zone. Therefore, coastal effects are not reasonably foreseeable.
	Antisubmarine Warfare Tracking Exercise - Surface Ship	Portions of the PACNW OPAREA located more than 12 nm off the Oregon coast. Normally about 50 nm off the Oregon coast.	No. In the PACNW OPAREA, locally based surface ships do not routinely conduct ASW Tracking exercises. However, mid-frequency active (MFA) sonar is used occasionally (less than one hour) during ship transits through portions of the PACNW OPAREA off the Oregon coast. Historically, as well as projected for the future, this use of sonar takes place greater than 50 nm from shore. All surface ship MFA sonar use off the Oregon coast would be more than 12 nm from shore and would likely be more than 50 nm from shore. No impacts to marine life that normally occurs in the coastal zone are expected based on the distance of the activity from the coastal zone. Therefore, coastal effects are not reasonably foreseeable.
	Antisubmarine Warfare Tracking Exercise - Submarine	Portions of the PACNW OPAREA located more than 3 nm off the Oregon coast.	No. These exercises occur outside the coastal zone and more than 3 nm offshore. Only passive sonar sensors are used and no torpedoes are fired during this exercise. Therefore, coastal effects are not reasonably foreseeable.

**TABLE 3: SUMMARY OF NAVY EFFECTS TEST TO IDENTIFY ELEMENTS OF THE PROPOSED ACTION WITH REASONABLY FORESEEABLE COASTAL EFFECTS (CONTINUED)**

Navy Warfare Area	Activity	Areas	Reasonably Foreseeable Coastal Effects
Support Operations	Intelligence, Surveillance, and Reconnaissance	Greater than 12 nm off the Oregon coast in W-570 and W-93A/B.	No. These exercises consist of fixed-wing aircraft overflights in W-570 and W-93A/B, which is outside the coastal zone and more than 12 nm from shore. No ordnance or other military materials, including chaff or flares, would be expended during these exercises. Therefore, coastal effects are not reasonably foreseeable.



**Oregon**  
Theodore R. Kulungoski, Governor

**Ocean and Coastal Management Program**  
Department of Land Conservation and Development  
635 Capitol Street, Suite 150  
Salem, Oregon 97301-2540  
Phone (503) 373-0050  
FAX (503) 378-6033  
www.oregon.gov/LCD/OCMP

November 3, 2009

Captain D.A. McNair, US Navy  
Deputy Fleet Engineer  
United States Pacific Fleet  
250 Makalapa Drive  
Pearl Harbor, HI 96860-3131

**Re: Negative Determination for Northwest Training Range Complex**

Dear Captain McNair:

The Department of Land Conservation and Development (DLCD) has reviewed the above referenced Negative Determination, prepared pursuant to 15 CFR 930.35, against the enforceable policies of the Oregon Coastal Management Program (OCMP). According to the Negative Determination, the Navy's training activities off the coast of Oregon will occur 12 nautical miles (nm) or farther from the coast, and therefore 9 nm or more from Oregon's coastal zone. Given this physical separation, and the description of training activities contemplated for waters near Oregon, the DLCD accepts the Navy's Negative Determination.

The DLCD requests that the Navy inform us if the location or nature of the training activities off Oregon changes in the future. Certain training activities, specifically Surface-to-Surface Gunnery (GUNEX), Air-to-Surface Bombing (BOMBEX), and non-submarine Anti-Submarine Warfare Exercises could, if conducted in or nearer to the coastal zone, impact resources and uses of the coastal zone.

If you have any questions or comments regarding this coastal zone management decision, the consistency review process, or the Oregon Coastal Management Program, please contact me at 503-373-0050 ext. 253 or by e-mail at: [jay.charland@state.or.us](mailto:jay.charland@state.or.us)

Sincerely,

Jay Charland  
Coastal State-Federal Relations Coordinator

I:\Coast\Federal Consistency\NWTRC\_EIS\_OEIS\Navy NWTRC ND.doc



**DEPARTMENT OF THE NAVY**  
COMMANDER  
UNITED STATES PACIFIC FLEET  
250 MAKALAPA DRIVE  
PEARL HARBOR, HAWAII 96860-3131

IN REPLY REFER TO:  
5090  
Ser N01CE1/1205  
29 Oct 09

Mr. Mark Delaplaine  
Federal Consistency Manager  
California Coastal Commission  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105-2219

Dear Mr. Delaplaine:

Enclosed, please find the Department of the Navy's Negative Determination under the Coastal Zone Management Act (CZMA) of 1972 as amended (16 United States Code 1456), as implemented by the provisions of 15 Code of Federal Regulations Section 930.35. The Navy is proposing to conduct selected training activities in portions of the Northwest Training Range Complex (NWTRC) off the northern California coast, outside the California Coastal Zone. This training is necessary to achieve and maintain Fleet readiness, as articulated in the Draft Environmental Impact Statement/Overseas Environmental Impact Statement (DEIS/OEIS) for the NWTRC. A copy of the DEIS/OEIS was previously provided to the California Coastal Commission in December of 2008.

Pursuant to Section 307(c)(1) of the federal CZMA, the Navy has determined that the Proposed Action would have no reasonably foreseeable effects to California's coastal uses or resources. The bases for this "Negative Determination" are detailed in Enclosure (1).

The Navy points of contact for this information are Ms. Kathryn Ostapuk at 619-532-2748, email:kathryn.ostapukat@navy.mil, or Ms. Kimberly Kler at 360-396-0927, e-mail: kimberly.kler@navy.mil.

Sincerely,

D. A. McNair  
Captain, U.S. Navy  
Deputy Fleet Engineer  
By direction

Enclosure: 1. Negative Determination for California

**Northwest Training Range Complex  
Coastal Zone Management Act  
Negative Determination for California  
October 2009**

**Background and Location of Proposed Activities**

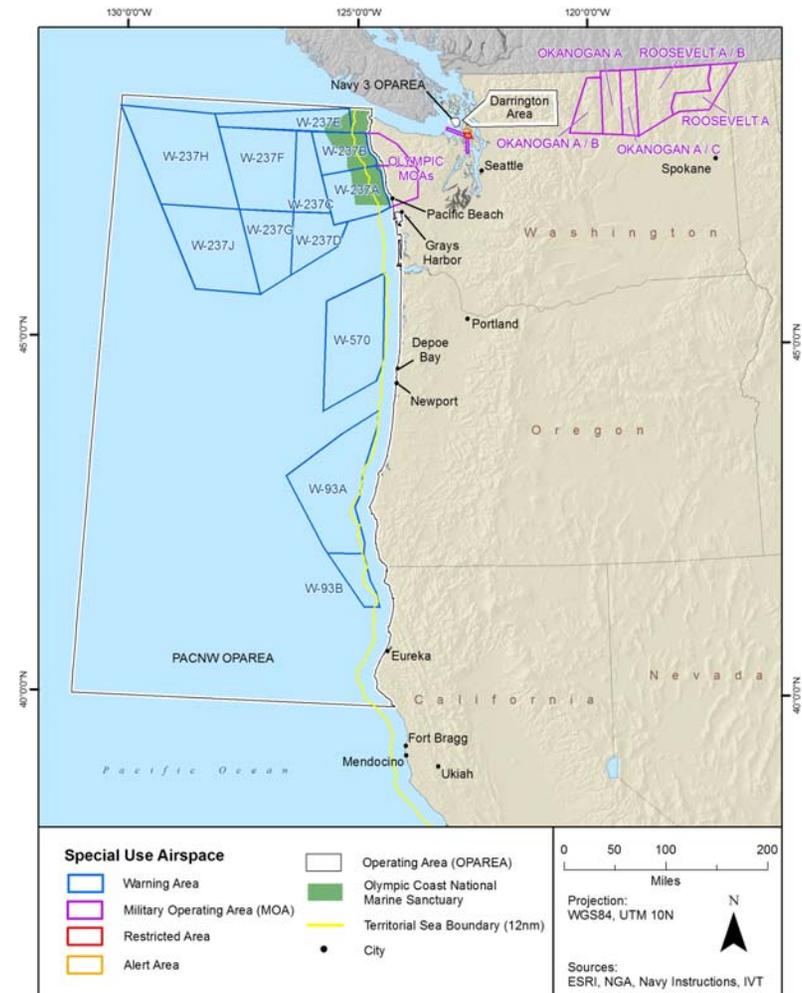
The United States Department of the Navy (Navy) is proposing to conduct selected training exercises in portions of the Northwest Training Range Complex (NWTRC) off the California coast to achieve and maintain Fleet readiness. The NWTRC consists of numerous individual training areas in the Pacific Northwest. The range complex includes ranges that extend westward in the Pacific Ocean (to 250 nautical miles [nm] beyond the coast of Washington, Oregon, and Northern California) and east to Idaho (Figure 1).

This document, prepared pursuant to the requirements of the Coastal Zone Management Act (CZMA) (16 U.S.C. § 1452, et seq.), provides information supporting the Navy's Negative Determination for the Proposed Action. This Negative Determination is submitted to the California Coastal Commission (CCC) in accordance with the CZMA Federal Consistency Regulations (15 CFR § 930, et. seq.), the California Coastal Management Program (CCMP), and the California Coastal Act (California Public Resources Code § 3000, et. seq.). This Negative Determination addresses activities that would take place in portions of the NWTRC located off the California coast.

The CZMA establishes National policy to protect resources in the coastal zone and requires coastal states to develop coastal management programs. The CZMA requires that each federal agency activity within or outside the coastal zone, that affects any land or water use or natural resource of the coastal zone, be carried out in a manner that is consistent to the maximum extent practicable with the enforceable policies of approved state management programs. Federal agencies are required to submit a Coastal Consistency Determination to coastal states when their activities would have reasonably foreseeable effects on coastal uses or resources. A Negative Determination may be submitted pursuant to 15 CFR § 930.35 if the federal agency's effects test indicates that coastal effects are not reasonably foreseeable.

The general description of the description of the California coastal zone can be found in Section 30103 of the California Public Resource Code. Site specific revisions to the coastal zone boundaries can be found at Sections 30150- 30174 of the California Public Resources Code. The California coastal zone generally extends 1,000 yards inland from the mean high tide line. In some estuarine habitat and recreational areas, it extends inland to the first major ridgeline or 5 miles from the mean high tide line, whichever is less. In developed urban areas, the boundary is generally less than 1,000 yards from the mean high tide line. The coastal zone of California extends seaward to the 3 nm territorial sea.

As shown in Figure 1, most of the NWTRC training areas are located off the coast of Washington, in Washington, or in Special Use Airspace over Washington, and most of the activities conducted under the Proposed Action would occur in those areas. Training areas located off the California coast include a portion of the Pacific Northwest Operating Area (PACNW OPAREA) and a portion of Warning Area 93B (W-93B). A relatively small portion of the PACNW OPAREA, located in the Pacific Ocean from 0 to 3 nm off the Northern California coast, is the only NWTRC training area located in the California coastal zone. However, all training activities would take place more than 12 nm off the California coast and well outside of the California coastal zone.



**Figure 1: Location of NWTRC Training Areas**

The Navy prepared a Draft Environmental Impact Statement/Overseas Environmental Impact Statement (DEIS/OEIS) for the Proposed Action within the NWTRC in accordance with the National Environmental Policy Act (NEPA) and Executive Order 12114 - *Environmental Effects Abroad of Major Federal Actions*. The DEIS/OEIS includes comprehensive descriptions of the Proposed Action and resources that could be affected by the action; a detailed analysis of the potential environmental consequences of the Proposed Action; and mitigation measures applicable to the Proposed Action. The DEIS/OEIS was submitted to CCC in a letter dated December 29, 2008. A majority of the proposed activities addressed by the DEIS/OEIS take place in Washington or off the Washington coast. As such, many of the activities described in the DEIS/OEIS are not applicable to this Negative Determination. The following section presents a description of the Proposed Action for portions of the NWTRC located off the California coast.

**Description of Proposed Action for Portions of the Northwest Training Range Complex Located off the California Coast**

**Overview**

The Navy is proposing to conduct selected training exercises in portions of the NWTRC located off the California coast. All training activities would take place more than 12 nm off the California coast and well outside of the California coastal zone. Specifically, training would take place in portions of the PACNW OPAREA located more than 12 nm off the California coast and in W-93B (Figure 1). The Proposed Action does not include any land-based or at-sea construction, modifications to existing infrastructure of the NWTRC, or changes in the geographic extent of the NWTRC's existing training areas, including those portions of the NWTRC located off the California coast.

The type and amount of Navy training that takes place off the California coast in the NWTRC is very limited. For example, the Navy uses W-93B about 16 hours per year. Naval vessels homeported in Washington transit through portions of the PACNW OPAREA more than 12 nm off the California coast, but these transits normally occur about 50 nm off the California coast. It is estimated that less than 1% of the Navy's training time in the NWTRC is spent off the California coast. Table 1 provides a summary of Navy training activities that may occur in the NWTRC off the California coast and descriptions of these activities are provided below. It should be noted that the activities listed in Table 1 do not occur exclusively off the California coast. As noted above, most of these events occur off the Washington coast.

**Anti-Surface Warfare (ASUW) Training**

Anti-Surface Warfare (ASUW) addresses combat (or interdiction) activities by air, surface, or submarine forces against hostile surface ships and boats.

**Surface-to-Surface Gunnery Exercise (GUNEX):** Surface gunnery exercises take place in the open ocean to provide gunnery practice for Navy ship crews. Exercises can involve a variety of surface targets that are either stationary or maneuverable. Gun systems employed against surface targets include the 5-inch, 76mm, 57mm, .50 caliber and the 7.62mm. A GUNEX lasts approximately one to two hours, depending on target services and weather conditions.

GUNEX events in the NWTRC normally take place off the Washington coast. However, naval vessels homeported in Washington may conduct this exercise in the PACNW OPAREA off the coast of California while transiting to and from the Southern California Range Complex. These transits normally occur approximately 50 nm off the California coast. Any GUNEX events taking place off the California coast would be more than 12 nm from shore.

**Table 1: Summary of Navy Training Activities that May Occur In the Northwest Training Range Complex off the California Coast**

Range Activity	Platform	System or Ordnance	Location
<b>ANTI-SURFACE WARFARE (ASUW)</b>			
Surface-to-Surface (S-S) Gunnery Exercise	CVN	20mm CIWS, 7.62mm, .50 cal	Portions of the PACNW OPAREA located more than 12 nm off the California coast. Normally about 50 nm off the California coast.
	DDG	57/54 BLP, 20mm, 7.62mm, .50 cal	
	FFG	76mm, 20mm, 7.62mm, .50 cal	
	AOE	20mm, 7.62mm, .50 cal	
Air-to-Surface (A-S) Bombing Exercise	P-3C	MK-82 (live), BDU-45 (inert)	Portions of the PACNW OPAREA located more than 12 nm off the California coast.
	P-8	MK-82 (live), BDU-45 (inert)	
	P-3	MK-82, AGM-65 Maverick	
	FA-18	MK-82, MK-83, MK-84, SLAM-ER	
	EA-6B	AGM-88C HARM	
	EA-18G	AGM-88C HARM	
	SH-60	AGM-114 HELLFIRE	
	DDG	57/54	
	FFG	76mm	
SSN	MK-48 ADCAP		
<b>ANTI-SUBMARINE WARFARE (ASW)</b>			
Anti-Submarine Warfare (ASW) Tracking Exercise - MPA	P-3C	Targets: SSN, MK-39 EMATT	Portions of the PACNW OPAREA located more than 12 nm off the California coast.
	P-8 MMA	Sonobuoys: SSQ-53 DIFAR (passive) SSQ-62 DICASS (active) SSQ-77 VLAD, SSQ-36 BT	
	P-8 MMA		
ASW Tracking Exercise - Surface Ship	DDG	SQS-53C MFA sonar	Portions of the PACNW OPAREA located more than 12 nm off the California coast. Normally about 50 nm off the California coast.
	FFG	SQS-56 MFA sonar	
ASW Tracking Exercise - Submarine	SSBN	BQQ-5 (passive only)	Portions of the PACNW OPAREA located more than 3 nm off the California coast.
	SSGN	BQQ-5 (passive only)	
	P-3		
	EP-3		
	CVN		
	DDG		
	FFG		
	AOE		
SSGN			
SSBN			
<b>SUPPORT ACTIVITIES</b>			
Intelligence, Surveillance, and Reconnaissance (ISR)	P-3, EP-3, EA-6B, EA-18G	None	Greater than 12 nm off the California coast in W-93B.

**Air-to-Surface Bombing Exercises (BOMBEX A-S):** During Air-to-Surface Bombing Exercises (BOMBEX A-S), Maritime Patrol Aircraft (MPA) and other fixed-wing aircraft deliver bombs against simulated surface maritime targets, typically a smoke float. MPA is a term used to describe both the P-3C Orion aircraft and the P-8 Poseidon. The P-8, also referred to as the Multi-mission Maritime Aircraft (MMA), will begin to replace the P-3 by 2013.

MPA use bombs to attack surfaced submarines and surface craft that would not present a major threat to the MPA itself. A single MPA approaches the target at a low altitude. In most training exercises, it drops inert training ordnance, such as the Bomb Dummy Unit (BDU-45) on a MK-58 smoke float used as the target. Historically, ordnance has been released throughout W-237 (primarily off the Washington coast), just south of W-237 (more than 100 nm off the Oregon coast), and in international waters in accordance with international laws, rules, and regulations.

The Proposed Action for the entire NWTRC includes dropping 110 inert bombs and 34 explosive bombs per year. A very small percentage of the total ordnance (approximately 4 bombs per year) would be dropped off the California coast because BOMBEX rarely occurs there. Any BOMBEX A-S events taking place off the California coast would be more than 12 nm from shore. Each BOMBEX A-S can take up to 4 hours to complete.

#### **Anti-Submarine Warfare (ASW) Training**

Tracking Exercise (TRACKEX) for ASW trains aircraft, ship, and submarine crews in tactics, techniques, and procedures for search, detection, localization, and tracking of submarines with the goal of determining a firing solution that could be used to launch a torpedo and destroy the submarine. A typical unit-level exercise involves one ASW unit (aircraft, ship, or submarine) versus one target, usually a MK-30 Mobile ASW target, a MK-39 Expendable Mobile ASW Training Target (EMATT), or a live submarine. The target may be non-evading while operating on a specified track or fully evasive. Participating units use active and passive sensors, including hull-mounted sonar, towed arrays, variable depth sonar, and sonobuoys for tracking. If the exercise continues into the firing of a practice torpedo it is termed a Torpedo Exercise (TORPEX). The ASW TORPEX usually starts as a TRACKEX to achieve the firing solution.

**ASW TRACKEX Maritime Patrol Aircraft (MPA):** During these activities, a typical scenario would involve a single MPA dropping sonobuoys, from an altitude below 3,000 ft, and sometimes as low as 400 ft, into specific patterns designed for both the anticipated threat submarine and the specific water conditions. These patterns vary in size and coverage area based on anticipated threat and water conditions. Typically, passive sonobuoys will be used first, so the threat submarine is not alerted. Active sonobuoys will be used as required either to locate extremely quiet submarines, or to further localize and track submarines previously detected by passive sonobuoys. A TRACKEX-MPA usually takes two to four hours. No torpedoes are fired during this training activity. Any TRACKEX-MPA events taking place off the California coast would be more than 12 nm from shore.

**ASW TRACKEX (Surface Ship):** In the PACNW OPAREA, locally based surface ships do not routinely conduct ASW Tracking exercises. However, mid-frequency active (MFA) sonar is used occasionally (one to one and a half hours) during ship transits through the OPAREA. All surface ship MFA sonar use is documented in this training activity description. Historically, as well as projected for the future, this use of sonar takes place greater than 50 nm from shore. All surface ship MFA sonar use off the California coast would be more than 12 nm from shore and would likely be more than 50 nm from shore.

**ASW TRACKEX (Submarine):** ASW TRACKEX is a primary training exercise for Bangor-based submarines. Training is conducted at the intermediate level and occurs in the PACNW OPAREA. These activities involve P-3 aircraft approximately 30% of the time. Training events in which P-3s are used

typically last 8 to 12 hours. During these activities submarines use passive sonar sensors to search, detect, classify, localize and track the threat submarine with the goal of developing a firing solution that could be used to launch a torpedo and destroy the threat submarine. However, no torpedoes are fired during this training activity. Any TRACKEX-Submarine events taking place off the California coast would be more than 3 nm from shore. As noted above, only passive sensors are used. MFA sonar is not used during this exercise.

#### **Support Activities**

**Intelligence, Surveillance, and Reconnaissance (ISR):** Intelligence refers to the information and knowledge obtained through observation, investigation, analysis, or understanding. Surveillance and reconnaissance refer to the means by which the information is observed. Surveillance is the systematic observation of a targeted area or group, usually over an extended time, while reconnaissance is a specific mission performed to obtain specific data about a target.

Off the California coast, ISR training may be conducted by MPA in W-93B (greater than 12 nm from shore). Activities typically last six hours and involve a crew of 11 personnel. P-3 aircrews use a variety of intelligence gathering and surveillance methods, including visual, infrared, electronic, and radar. EP-3 and EA-6B crews conduct ISR training as well, but to a lesser extent than P-3C crews. Basically, these exercises involve aircraft overflights and use of on-board systems by the crew. Ordnance or other expended materials such as chaff, flares, or sonobuoys are not used during ISR off the California coast.

#### **Enforceable Policies and Consistency Review**

This section provides an overview of the enforceable policies of the CCMP and the findings of the Navy's Consistency Review. The purpose of the Consistency Review was to determine the applicability of the enforceable policies to the Proposed Action.

The CZMA requires that each federal agency activity within or outside the coastal zone, that affects any land or water use or natural resource of the coastal zone, be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved State management programs. The term "consistent to the maximum extent possible" means fully consistent with the enforceable policies of the management programs unless full consistency is prohibited by existing law applicable to the federal agency. The term "enforceable policy" means state policies which are legally binding through constitutional provisions, laws, regulations, land use plans, ordinances, or judicial or administrative decisions, by which a state exerts control over private and public land and water uses and natural resources in the coastal zone, and which are incorporated in the federally approved state coastal program.

The enforceable policies of the CCMP are contained in Chapter 3 of the California Coastal Act of 1976 (California Public Resource Code Section 30200 et. seq.). Applicability of the enforceable policies to the Proposed Action is summarized in Table 2. Many of the enforceable policies are not applicable to the Proposed Action because they address land-based activities and/or development and construction. As discussed previously, the Proposed Action does not include land-based activities in California or development, construction, or modification of existing facilities or infrastructure.

**TABLE 2: ENFORCEABLE POLICIES OF THE CALIFORNIA COASTAL MANAGEMENT PROGRAM AND THEIR APPLICABILITY TO THE PROPOSED ACTION**

Enforceable Policy	Applicability to the Proposed Action
<b>Article 1 General</b>	
Section 30200 Policies as standards; resolution of policy conflicts	Applicable
<b>Article 2 Public Access</b>	
Section 30210 Access; recreational opportunities; posting	Not Applicable
Section 30211 Development not to interfere with access	Not Applicable
Section 30212 New development projects	Not Applicable
Section 30212.5 Public facilities; distribution	Not Applicable
Section 30213 Lower cost visitor and recreational facilities	Not Applicable
Section 30214 Implementation of public access policies; legislative intent	Not Applicable
<b>Article 3 Recreation</b>	
Section 30220 Protection of certain water-oriented activities	Applicable
Section 30221 Oceanfront land; protection for recreational use and development	Not Applicable
Section 30222 Private lands; priority of development purposes	Not Applicable
Section 30222.5 Oceanfront lands; aquaculture facilities; priority	Not Applicable
Section 30223 Upland areas	Not Applicable
Section 30224 Recreational boating use; encouragement; facilities	Not Applicable
<b>Article 4 Marine Environment</b>	
Section 30230 Marine resources; maintenance	Applicable
Section 30231 Biological productivity; water quality	Applicable
Section 30232 Oil and hazardous waste substance spills	Not Applicable
Section 30233 Diking, filling or dredging; continued movement of sediment and nutrients	Not Applicable
Section 30234 Commercial fishing and recreational boating facilities	Not Applicable
Section 30234.5 Economic, commercial, and recreational fishing importance	Applicable
Section 30235 Construction altering natural shoreline	Not Applicable
Section 30236 Water supply and flood control	Not Applicable
<b>Article 5 Land Resources</b>	
Section 30240 Environmentally sensitive habitat areas; adjacent developments	Not Applicable
Section 30241 Prime agricultural land; maintenance in agricultural production	Not Applicable
Section 30241.5 Agricultural land; determination of viability of uses; economic feasibility evaluation	Not Applicable
Section 30242 Lands suitable for agricultural use; conversion	Not Applicable
Section 30243 Productivity of soils and timberlands; conversions	Not Applicable
Section 30244 Archaeological or paleontological resources	Not Applicable
<b>Article 6 Development</b>	
Section 30250 Location; existing development area	Not Applicable
Section 30251 Scenic and visual qualities	Not Applicable
Section 30252 Maintenance and enhancement of public access	Not Applicable
Section 30253 Minimization of adverse impacts	Not Applicable
Section 30254 Public works facilities	Not Applicable
Section 30254.5 Terms or conditions on sewage treatment plant development; prohibition	Not Applicable
Section 30255 Priority of coastal-dependent developments	Not Applicable
<b>Article 7 Industrial Development</b>	
Section 30260 Location or expansion	Not Applicable
Section 30261 Tanker facilities; use and design	Not Applicable
Section 30262 Oil and gas development	Not Applicable
Section 30263 Refineries or petrochemical facilities	Not Applicable
Section 30264 Thermal electric generating plants	Not Applicable
Section 30265 Legislative findings and declarations; offshore oil transportation	Not Applicable
Section 30265.5 Governor or designee; coordination of activities concerning offshore oil transport and refining; duties	Not Applicable

**Effects Test**

As summarized in Table 3, the Navy conducted an effects test to determine if activities included in the Proposed Action would have reasonably foreseeable direct and/or indirect effects on a coastal use or resource. The effects test was used to determine the need to prepare a Consistency Determination or a Negative Determination in accordance with CZMA and CCMP. The Navy's effects test considered the following and relied upon the detailed analyses provided in the Draft NWTRC DEIS/OEIS:

- The spatial relationship of the proposed activities and training areas to California's coastal zone.
- The definitions of coastal uses and resources.
- Relevant enforceable policies of the CCMP.
- The nature of the training operations included in the Proposed Action and their potential to adversely affect coastal uses and resources.

**Conclusion**

Based on the information in Table 3, the Navy has determined that the Proposed Action does not require a Consistency Determination because the activities would not have reasonably foreseeable direct or indirect effects on a coastal use or resource. Accordingly, this Negative Determination has been prepared.

**TABLE 3: SUMMARY OF NAVY EFFECTS TEST TO IDENTIFY ELEMENTS OF THE PROPOSED ACTION WITH REASONABLY FORESEEABLE COASTAL EFFECTS**

Navy Warfare Area	Activity	Areas	Reasonably Foreseeable Coastal Effects
Anti-Surface Warfare	Surface-to-Surface Gunnery Exercise	Portions of the PACNW OPAREA located more than 12 nm off the California coast. Normally about 50 nm off the California coast.	No. GUNEX events in the NWTRC normally take place off the Washington coast. However, naval vessels homeported in Washington may conduct this exercise in the PACNW OPAREA off the coast of California while transiting to and from the Southern California Range Complex. These transits normally occur approximately 50 nm off the California coast. Any GUNEX events taking place off the California coast would be more than 12 nm from shore. No impacts to marine life or wildlife that normally occurs in the coastal zone are expected based on the distance of the activity from the coastal zone. Therefore, coastal effects are not reasonably foreseeable.
	Air-to-Surface Bombing Exercise	Portions of the PACNW OPAREA located more than 12 nm off the California coast.	No. These exercises would take place outside the coastal zone and more than 12 nm offshore. Historically, ordnance has been released throughout W-237 (primarily off Washington), just south of W-237 (off Oregon), and in international waters in accordance with international laws, rules, and regulations. It is anticipated that no more than one BOMBEX event (dropping three inert and one explosive bomb) would occur off the California coast per year. No impacts to marine life or wildlife that normally occurs in the coastal zone are expected based on the distance of the activity from the coastal zone. Therefore, coastal effects are not reasonably foreseeable.
Anti-Submarine Warfare	Anti-submarine Warfare Tracking Exercise - MPA	Portions of the PACNW OPAREA located more than 12 nm off the California coast.	No. These exercises would take place outside the coastal zone and more than 12 nm offshore. Passive or active sonobuoys used during these exercises are not recoverable, would sink in deep waters well outside the coastal zone, and are not expected to drift into the coastal zone. No impacts to marine life or wildlife that normally occurs in the coastal zone are expected based on the distance of the activity from the coastal zone. Therefore, coastal effects are not reasonably foreseeable.
	Anti-submarine Warfare Tracking Exercise - Surface Ship	Portions of the PACNW OPAREA located more than 12 nm off the California coast. Normally about 50 nm off the California coast.	No. In the PACNW OPAREA, locally based surface ships do not routinely conduct ASW Tracking exercises. However, mid-frequency active (MFA) sonar is used occasionally (less than one hour) during ship transits through portions of the PACNW OPAREA off the California coast. Historically, as well as projected for the future, this use of sonar takes place greater than 50 nm from shore. All surface ship MFA sonar use off the California coast would be more than 12 nm from shore and would likely be more than 50 nm from shore. No impacts to marine life that normally occurs in the coastal zone are expected based on the distance of the activity from the coastal zone. Therefore, coastal effects are not reasonably foreseeable.
Anti-submarine Warfare Tracking Exercise - Submarine	-	Portions of the PACNW OPAREA located more than 3 nm off the California coast.	No. These exercises occur outside the coastal zone and more than 3 nm offshore. Only passive sonar sensors are used and no torpedoes are fired during this exercise. Therefore, coastal effects are not reasonably foreseeable.

**TABLE 3: SUMMARY OF NAVY EFFECTS TEST TO IDENTIFY ELEMENTS OF THE PROPOSED ACTION WITH REASONABLY FORESEEABLE COASTAL EFFECTS (CONTINUED)**

Navy Warfare Area	Activity	Areas	Reasonably Foreseeable Coastal Effects
Support Operations	Intelligence, Surveillance, and Reconnaissance	Greater than 12 nm off the California coast in W-93B.	No. These exercises consist of fixed-wing aircraft overflights in W-93B, which is outside the coastal zone and more than 12 nm from shore. No ordnance or other military materials would be expended during these exercises. Therefore, coastal effects are not reasonably foreseeable.

**CALIFORNIA COASTAL COMMISSION**

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December 22, 2009

D. A. McNair, Captain  
 Deputy Fleet Engineer  
 U.S. Navy  
 Commander United States Pacific Fleet  
 c/o Kathryn Ostapuk, J.D.  
 250 Makalapa Dr.  
 Pearl Harbor, HA 96860-3131

Re: **ND-066-09**, Navy, Negative Determination, Navy Training Activities, Northwest Training Range Complex (NWTRC), offshore of northern California

Dear Captain McNair:

The Navy has submitted a negative determination for the California component of its Northwest Training Range Complex (NWTRC) training activities. The vast majority (over 99%) of the training activities within the range are offshore of the state of Washington. The Navy has submitted a separate consistency determination to Washington, as well as a Negative Determination to the State of Oregon. The Coastal Commission staff is limiting its review to activities within the range conducted offshore of California, where the southernmost portion of the range extends to waters offshore of Humboldt and Del Norte Counties (see Attachment 1 for a map of the entire extent of the range).

The Navy believes that activities conducted in California offshore waters would not affect the California coastal zone, given the small intensity of activities (>1% of the range activities), their location (generally far outside the coastal zone), and the mitigation and monitoring measures that have been included in the activities.

In summary, the California offshore activities of potential concern would consist of: (1) approximately 16 hours per year of airspace activities off California; (2) up to 1 hour of mid-frequency sonar use per year; (3) tracking by sonobuoys using active and passive sonar; (4), a small number of explosives munitions per year (up to four explosives, less than 1000 lb. each); and (5) surface firing of relatively small caliber munitions. Most of the activities would take place 50 nautical miles (nm) or more offshore, and all would be 12 nm or more offshore.

The California activities generally fall into two categories, Anti-Surface Warfare (ASUW) Training, and Anti-Submarine Warfare Training (ASW) Training, as follows:

**1. Anti-Surface Warfare (ASUW) Training.** This category includes Surface-to-Surface Gunnery Exercise (**GUNEX**) and Air-to-Surface Bombing Exercises (**BOMBEX A-S**). The surface gunnery exercises would normally occur more than 50 nm offshore, and in no event nearer to the shore than 12 nm. These involve gunnery practice using a variety of surface targets

-2-

(either stationary or maneuverable surface targets), with gun systems using 5 inch, 76 mm, 57 mm, .50 caliber and the 7.62 mm munitions. A GUNEX lasts approximately one to two hours, depending on target services and weather conditions. These normally are conducted off the Washington coast; however, naval vessels homeported in Washington may conduct this exercise off the coast of California while vessels are transiting to and from the Southern California Range Complex or Navy bases.

**BOMBEX** activities would also typically occur off Washington, and most are limited to inert materials. A small percentage could include use of live explosives. The Navy estimates up to 4 explosive bombs (ranging from 450 to 945 lbs.) per year offshore of California, with none nearer than 12 nm from shore. The Navy will employ marine mammal and sea turtle mitigation, monitoring, and reporting measures, which are described in more detail in the Navy's Environmental Impact Statement (EIS)/Overseas Environmental Impact Statement (OEIS) for the NWTRC activities. These include aerial surveying and implementing safety zones, to assure the area to be used is clear of vessels and marine life prior to the training. More specifically, these measures include:

- a. If surface vessels are involved, lookouts will survey for floating kelp, which may be inhabited by immature sea turtles. Ordnance shall not be targeted to impact within 1,000 yds (914 m) of known or observed floating kelp, sea turtles, or marine mammals.
- b. A buffer zone of 1,000 yd (914 m) radius will be established around the intended target.
- c. Aircraft will visually survey the target and buffer zone for marine mammals and sea turtles prior to and during the exercise. The survey of the impact area will be made by flying at 1,500 feet or lower, if safe to do so, and at the slowest safe speed. Release of ordnance through cloud cover is prohibited: aircraft must be able to actually see ordnance impact areas. Survey aircraft should employ most effective search tactics and capabilities.
- d. The exercises will be conducted only if marine mammals and sea turtles are not visible within the buffer zone.

**2. Anti-Submarine Warfare Training (ASW) Training.** This category includes use of active and passive sensors, including hull-mounted sonar, towed arrays, variable depth sonar, and active and passive sonobuoys, for tracking and other surveillance training. The exercises include aircraft and surface ship tracking, as follows:

**ASW TRACKEX Maritime Patrol Aircraft (MPA).** Aircraft tracking activities include use of Maritime Patrol Aircraft (TRACKEX-MPA) dropping sonobuoys, from an altitude below 3,000 ft, and sometimes as low as 400 ft, into specific patterns based on anticipated threat and water conditions. Typically, passive sonobuoys are used first, so the threat submarine is not alerted. Active sonobuoys would be used when needed either to locate extremely quiet submarines, or to further localize and track submarines previously detected by passive sonobuoys. These exercises usually take 2-4 hours. No torpedoes are fired, and all TRACKEX-

MPA events off the California coast would be more than 12 nm from shore. Mitigation measures include maintaining a 1000 yd. safety zone for marine mammals and sea turtles.

**ASW TRACKEX Surface Ship.** Although less frequent in the range, locally based surface ships sometimes conduct ASW Tracking exercises. Mid-frequency active (MFA) sonar is used occasionally, with approximately 108 hours of MFA used annually within the entire range, predominantly off Washington. Only approximately one hour of MFA is used annually during ship transits through the California portion of the NWTRC. Historically, as well as projected for the future, this use of sonar takes place at a distance averaging 50 nm from shore. All surface ship MFA sonar use off the California coast would be more than 12 nm from shore. As is the case for the above-described active sonobuoy use, and as further described in its EIS/OEIS (p. 5-11 to 5-21), the Navy would employ a similar suite of monitoring and mitigation measures used in southern California training that the Commission has reviewed (see Consistency Determinations CD-086-06 and CD-049-08), plus any additional measures required by the National Marine Fisheries Service in its review (still pending) of the Navy's incidental take permit. These measures include periodic reporting, and the Navy has agreed to provide the Commission staff with copies of all monitoring reports.

Additional activities off California include surveillance and other tracking using passive acoustics and other minor support activities.

Primarily due to the small number of activities, and with the above measures, the Commission staff **agrees** with the Navy's conclusion that the proposed activities would not adversely affect coastal zone resources. In agreeing with your determination, please note that we do not intend the Navy to be left with the impression that the Commission has changed its position over the need for additional mitigation measures to protect marine mammals and sea turtles from the effects of mid-frequency sonar (as discussed in detail in the Commission's findings on Navy consistency determinations CD-086-06 and CD-049-08). We continue to believe the additional measures are warranted, and we urge the Navy and NMFS to continue to consider implementing and requiring them. Our concurrence is rather based on the absence of extensive mid-frequency sonar use offshore of California for these particular training activities. With that clarification, we **concur** with your negative determination made pursuant to 15 CFR Section 930.35 of the NOAA implementing regulations. Please contact Mark Delaplaine at (415) 904-5289 if you have any questions regarding this matter.

Sincerely,

*Mark Delaplaine*  
(for) PETER M. DOUGLAS  
Executive Director

Attachment (Range Map)

cc: Eureka District Office  
Washington and Oregon State Coastal Management Programs  
National Marine Fisheries Service

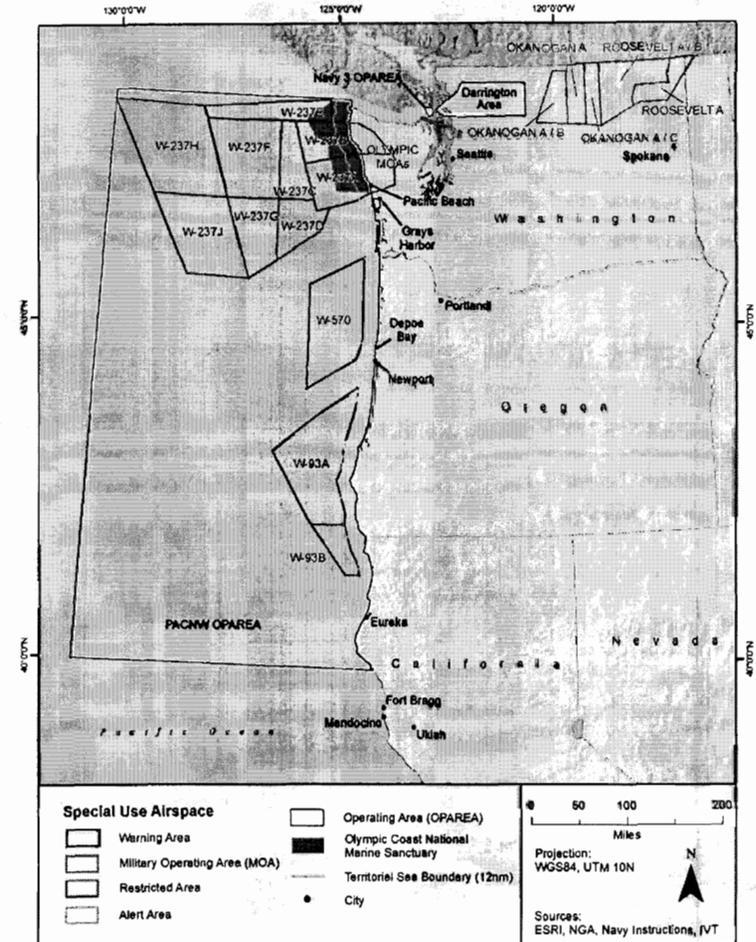


Figure 1: Location of NWTRC Training Areas



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
Northwest Region  
7600 Sand Point Way N.E., Bldg. 1  
Seattle, WA 98115

Refer to NMFS No.:  
2009/07443

May 20, 2010

John Mosher  
U.S. Pacific Fleet  
Northwest Environmental Program Manger  
Naval Air Station Whidbey Island  
Environmental Division, Attn: John Mosher (COMPACFLT)  
1155 W. Lexington Street, Bldg 113  
Oak Harbor, Washington 98278-3500

Re: Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat  
Consultation for the Northwest Training Range Complex on the Coasts of Northern  
California, Oregon, and Washington from February 2010 until February 2015.

The enclosed essential fish habitat (EFH) consultation document was prepared by the National Marine Fisheries Service (NMFS) pursuant to section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and its implementing regulations (50 CFR Part 600) on the effects of the U.S. Navy's implementation of the Northwest Training Range Complex and Naval Undersea Warfare Center Keyport Range Complex Extension. In this consultation, NMFS concludes that the proposed action would adversely affect EFH and includes three conservation recommendations to avoid, minimize, or otherwise offset potential adverse effects to EFH.

Section 305(b)(4)(B) of the MSA requires Federal agencies to provide a detailed written response to NMFS within 30 days after receiving this recommendation. If the response is inconsistent with the EFH conservation recommendation, the U.S. Navy must explain why the recommendation will not be followed, including the scientific justification for any disagreements over the effects of the action and the recommendations.

In response to increased oversight of overall EFH program effectiveness by the Office of Management and Budget, NMFS established a quarterly reporting requirement to determine how many conservation recommendations are provided as part of each EFH consultation and how many are adopted by the action agency. Therefore, in your statutory reply to this consultation, please clearly identify the number of conservation recommendations accepted.



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If you have questions regarding this consultation, please contact Ms. Cathy Tortorici, Branch Chief of the Oregon Coast/Lower Columbia River Habitat Branch of the Oregon State Habitat Office, at 503.231.6268.

Sincerely,

Michael P. Tehan  
Assistant Regional Administrator  
Habitat Conservation Division

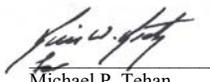
# Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation

Northwest Training Range Complex on the Coasts of Northern California, Oregon, and Washington for February 2010 February 2015

Lead Action Agency: U.S. Navy, Naval Air Station Whidbey Island

Consultation Conducted By: National Marine Fisheries Service  
Northwest Region

Date Issued: May 20, 2010

Issued by:   
Michael P. Tehan  
Assistant Regional Administrator  
Habitat Conservation Division

NMFS No.: 2009/07443

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## MAGNUSON-STEVENSON FISHERY CONSERVATION AND MANAGEMENT ACT

### Consultation Background

The consultation requirement of section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) directs Federal agencies to consult with NMFS on all actions or proposed actions that may adversely affect essential fish habitat (EFH). Adverse effects include the direct or indirect physical, chemical, or biological alterations of the waters or substrate, and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality or quantity of EFH. Adverse effects to EFH may result from actions occurring within EFH or outside EFH, and may include site-specific or EFH-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810). Section 305(b) also requires NMFS to recommend measures that may be taken by the action agency to conserve EFH.

From April to July 2009, the National Marine Fisheries Service (NMFS) met with the U.S. Navy and reviewed the July 2009 preliminary draft Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS) for the Northwest Training Range Complex (NWTRC) and the November 2008, and July 2009, EFH assessment of the U.S. Navy for this action.

During the course of these conversations, the U.S. Navy stated and confirmed in their July 2009, EFH Assessment that “based on the limited extent, duration, and magnitude of potential impacts from NWTRC training activities, there would not be adverse effects on managed species or EFH. Range operations and potential enhancements would not significantly contribute to cumulative impacts on present or future uses of the area.” Therefore, they did not request consultation on their EFH Assessment under section 305 of the MSA for this project.

The U.S. Navy discussed the EFH definition they used with NMFS. As documented in the July 2009, the preliminary final EIS/OEIS (pages 3.7-28 and 29) for the NWTRC states:

The preliminary final EIS/OEIS analyzes potential effects to fish and EFH in the context of the MSFCMA (federally managed species and EFH), ESA (species listed under the ESA only), NEPA, and EO 12114. The factors used to assess the significance of effects vary under these Acts. Under the MSFCMA an “adverse effect” is defined as any impact that reduces the quality and/or quantity of EFH (NMFS 2004a, 2004b). The EFH regulations in 50 CFR 600.815(a)(2)(ii) (NMFS 2002a) establish a threshold for determining adverse effects (NMFS 2002b). Adverse effects are more than minimal and not temporary in nature. Temporary effects are those that are limited in duration and allow the particular environment to recover without measurable impact (NMFS 2002b). Minimal effects are those that may result in relatively small changes in the affected environment and insignificant changes in ecological functions. To help identify Navy activities falling within the adverse effect determination, the Navy has determined that temporary or minimal impacts are not considered to “adversely affect” EFH. The EFH Final Rule (67 Federal Register 2354) and 50 CFR 600.815(a)(2)(ii) were

used as guidance for this determination, as they highlight activities with impacts that are more than minimal and not temporary in nature, as opposed to those activities resulting in inconsequential changes to habitat. Whether an impact is minimal will depend on a number of factors:

- The intensity of the impact at the specific site being affected;
- The spatial extent of the impact relative to the availability of the habitat type affected;
- The sensitivity/vulnerability of the habitat to the impact;
- The habitat functions that may be altered by the impact (e.g., shelter from predators); and;
- The timing of the impact relative to when the species or life stage needs the habitat.

NMFS indicated that the definition of EFH that the U.S. Navy was using needed to be corrected in order to properly characterize the extent and magnitude of effects to EFH. First, the definition of “adverse effects” to EFH is contained in the EFH regulatory guidance 50 CFR 600.810 (a), not in NMFS 2004a or NMFS 2004b as is referenced by the U.S. Navy. Second, The EFH regulatory guidance at 50 CFR 600.815(a)(2)(ii) regarding effects that are more than minimal and not temporary pertain to adverse effects to EFH from fishing activities by Federal Fishery Management Councils. Thus, the U.S. Navy’s was informed that the use of this threshold to satisfy its requirement to consult with NMFS on actions that may adversely affect EFH was not appropriate. The U.S. Navy may determine that its actions are not significant under NEPA. However, such a determination regarding NEPA significance did not absolve the U.S. Navy from the MSA requirement to consult with NMFS on actions that may have an adverse effect on EFH.

Part of the lack of request for consultation therefore may be the EFH definition that the U.S. Navy used in their EFH assessment. Based on the NMFS’ review of that document, the preliminary final EIS/OEIS, and consideration of the U.S. Navy’s definition of EFH, and what we consider the appropriate definition of EFH to be for a project like this, NMFS determined that potential impacts of the implementation of this project on EFH were such that an EFH consultation would be prepared.

NMFS informed the U.S. Navy during a July 15, 2009 meeting we believed that the project may adversely affect essential fish habitat (EFH) for Pacific salmon and Pacific coast groundfish and coastal pelagic species and would be providing EFH conservation recommendations.

NMFS’ EFH consultation document was prepared in accordance with section 305(b)(2) of the MSA (16 U.S.C. 1801, *et seq.*) and implementing regulations at 50 CFR 600. The docket for this consultation is on file at the Oregon State Habitat Office in Portland, Oregon.

### Identification of EFH

EFH is defined as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (MSA § 3(10)). For the purpose of interpreting the definition of essential fish habitat: “Waters” include aquatic areas and their associated physical, chemical, and

biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate; "substrate" includes sediment, hard bottom, structures underlying the waters, and associated biological communities; "necessary" means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and "spawning, breeding, feeding, or growth to maturity" covers a species' full life cycle. EFH is described in amendments to Fishery Management Plans, and is approved by the Secretary of Commerce acting through NOAA Fisheries. (50 CFR 600.10)

Pursuant to the MSA, the Pacific Fisheries Management Council (PFMC) has designated EFH for Federally-managed fisheries within the waters of Washington, Oregon, and California. Designated EFH for salmon, groundfish and coastal pelagic species encompasses all waters or substrate from the mean high water line, and upriver extent of saltwater intrusion in river mouths, along the coasts of Washington, Oregon, and California, and seaward to the boundary of the U.S. exclusive economic zone (EEZ) (200 miles) (PFMC 1998, 2005). In estuarine and marine areas, designated salmon EFH includes the nearshore and tidal submerged environments within state territorial waters, and the full extent of the EEZ offshore of Washington, Oregon, and California north of Point Conception (PFMC 1999).

#### Proposed Action

The purpose of the U.S. Navy's readiness activities is to meet the requirements of the U.S. Navy's Fleet Response Training Plan and allow U.S. Navy personnel to remain proficient in anti-submarine warfare and mine warfare skills.

According to the July 2009, preliminary final EIS/OEIS and Essential Fish Habitat Assessment for the NWTRC:

The purpose of the Proposed Action is to achieve and maintain Fleet readiness using the Northwest Training Range Complex (NWTRC) to support and conduct current, emerging, and future training and research, development, test and evaluation (RDT&E) operations, while enhancing training resources through investment on the ranges. The NWTRC includes offshore air, sea, and undersea space; nearshore air, land, sea, and undersea space, and inland airspace and land ranges. Offshore and nearshore operating areas contain EFH for species covered under Fishery Management Plans (managed species) including: salmonids, coastal pelagic species, Pacific Coast groundfish, and highly migratory species. The NWTRC is located within the California Current System: the offshore and nearshore areas adjacent to Washington, Oregon and northern California coasts; and the marine and estuarine waters of the inshore basins of Puget Sound. Navy training activities in the NWTRC include: air combat maneuvers; missile, gunnery, bombing, vessel sink, and electronic combat exercises; antisubmarine warfare tracking and extended echo ranging exercises; mine countermeasures training; Explosive Ordinance Disposal training; insertion and extraction activities; naval special warfare training; intelligence, surveillance, and reconnaissance activities; and unmanned aerial vehicle activities. The Navy proposes to implement actions within the NWTRC to:

- Maintain baseline training and RDT&E operations at current levels;
- Increase certain training and RDT&E operations from current levels as necessary to support the Fleet Readiness Training Plan (FRTP);
- Accommodate mission requirements associated with force structure changes and introduction of new weapons and systems to the Fleet; and
- Implement enhanced range complex capabilities.

The NWTRC consists of four primary components: ocean operating areas, the Puget Sound operating areas, special-use airspace, and training land areas. The range complex includes ranges and airspace that extend west to 250 nautical miles (nm) (463 kilometers [km]) beyond the coast of Northern California, Oregon, and Washington and east to Idaho. The components of the NWTRC encompass 122,400 nm<sup>2</sup> (420,163 km<sup>2</sup>) of surface/subsurface ocean OPAREAs, 46,048 nm<sup>2</sup> (157,928 km<sup>2</sup>) of special use airspace, and 875 acres (354 hectares) of land. For range management and scheduling purposes, the NWTRC is divided into numerous sub-component ranges or training areas used to conduct training and RDT&E activities.

*NWTRC Ocean OPAREAs.* The ocean areas of the Range Complex include surface and subsurface operating areas extending generally west from the coastline of Northern California, Oregon, and Washington for a distance of approximately 250 nm (463 km) into international waters (see Figure 2).

*Puget Sound Surface/Subsurface Areas.* There are several areas within Puget Sound routinely used by the Navy for a variety of surface and underwater activities. These areas are:

- Navy 3. Navy 3 is a polygon of water space used by Navy ships for training. This 46 nm<sup>2</sup> (158km<sup>2</sup>) area is located 8 nm (15 km) west of Ault Field, NAS Whidbey Island, in the Strait of Juan de Fuca.
- Navy 7. Navy 7 is defined as the sea surface and subsurface area beneath R-6701.

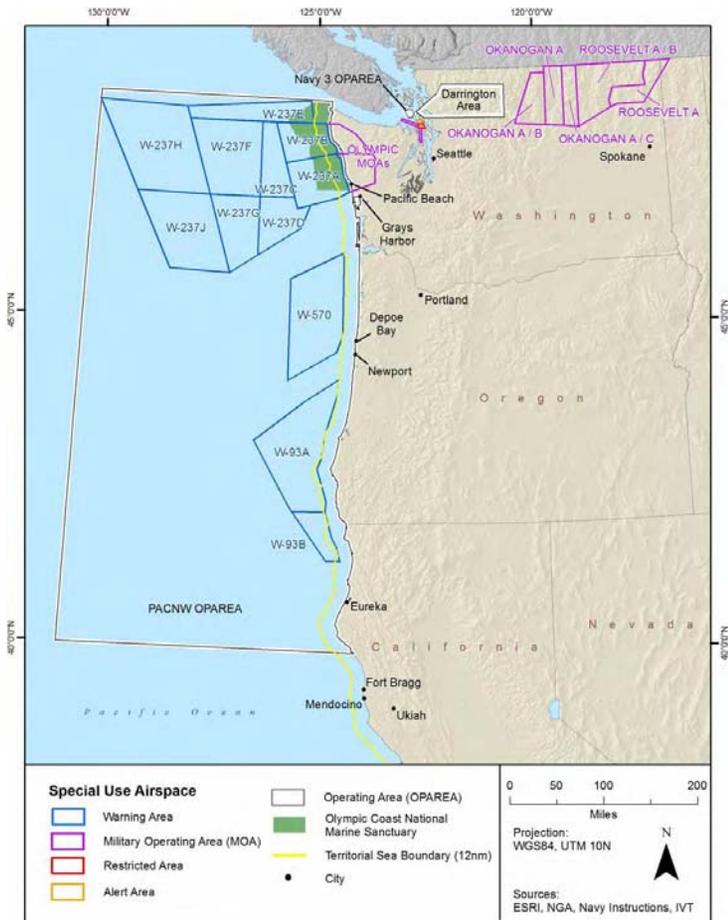


Figure 1: NWTRC

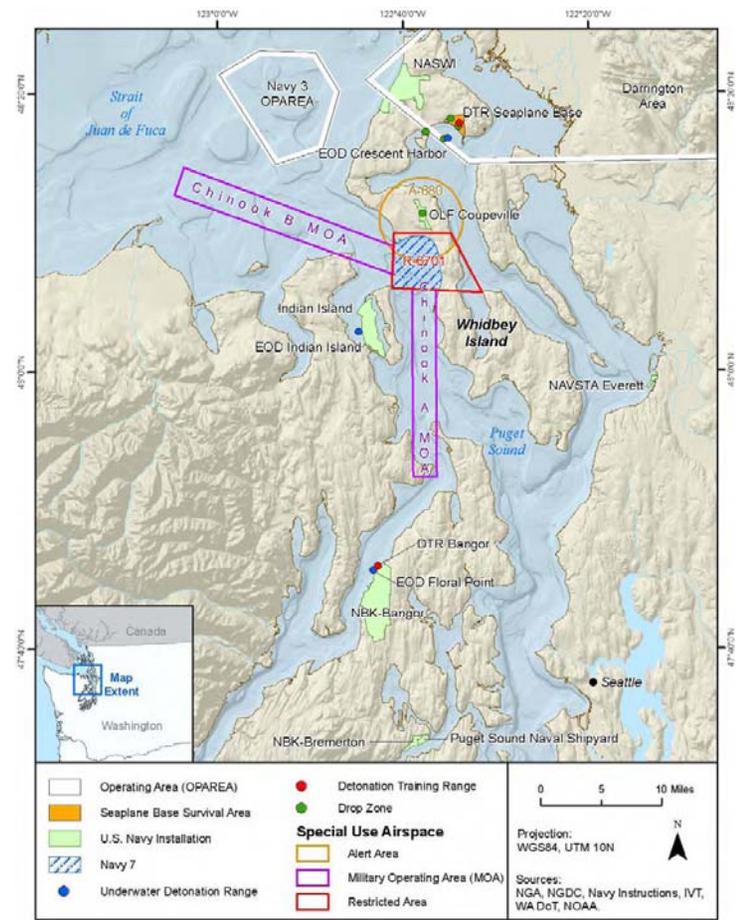


Figure 2: Puget Sound Training Areas of the NWTRC

- Crescent Harbor Underwater EOD Range. This EOD underwater range is located in Crescent Harbor off of the Seaplane Base at Whidbey Island.
- Indian Island EOD Underwater Range. This area is located offshore, just west of Naval Magazine Indian Island.
- Bangor EOD Underwater Range. This area, also known as the Floral Point EOD Underwater Range, is located within a Navy operating area in Hood Canal, near NBK-Bangor.

*Airspace.* The NWTRC study area includes airspace used either exclusively by the military, or co-use with civilian and commercial aircraft. Some of this airspace is special use airspace, military airspace designated by the Federal Aviation Administration as Warning Areas, Restricted Areas, and Military Operating Areas (MOAs). The airspace included in the NWTRC study area includes:

Warning Area 237. W-237 comprises 33,997 nm<sup>2</sup> (116,606 km<sup>2</sup>) of airspace that generally overlays the NWTRC Ocean OPAREAS off the coast of Washington. W-237 begins approximately 3 nm (5 km) off the coast and extends westward in international waters and airspace for a distance of approximately 250 nm (463 km) from the ocean surface up to several specified altitudes depending upon which sub-area is used. The floor of W-237 airspace begins at the ocean surface, and the ceiling varies between 27,000 ft (8,230 m) and unlimited.

Olympic MOAs. The Olympic A and B MOAs are located over the northwest coast of the Olympic Peninsula in Washington and extend out 3 nm to join with W-237. The MOAs cover 1,641 nm<sup>2</sup> (5,628 km<sup>2</sup>) of area. Olympic A and B have a floor of 6,000 feet (ft) (1,829 meters [m]) and a ceiling of 18,000 ft (5,486 m). Olympic B air traffic controlled assigned airspace (ATCAA) has a floor of 18,000 ft (5,486 m) and a ceiling of 50,000 ft (15,240 m).

- The Chinook A and B MOAs are adjacent to R-6701 over the eastern portion of the Strait of Juan de Fuca and Admiralty Inlet respectively. Both Chinook MOAs cover 56 nm<sup>2</sup> (192 km<sup>2</sup>) of surface area and have a floor of 300 ft (91 m) and a ceiling of 5,000 ft (1,524 m).
- Restricted Area 6701. R-6701 is a 22 nm<sup>2</sup> (75 km<sup>2</sup>) area over Admiralty bay that extends from the surface to 5,000 ft (1,524 m).
- Okanogan MOA. The Okanogan MOA is located above north central Washington and covers 4,364 nm<sup>2</sup> (14,968 km<sup>2</sup>) in area. This MOA is divided into A, B, and C sections. Okanogan A is available from 9,000 ft (2,743 m) to 18,000 ft (5,486 m). Okanogan B and C have a floor of 300 ft (91 m) above the ground and a ceiling of 9,000 ft (2,743 m). The ATCAAs corresponding to the Okanogan MOA extends the airspace to 50,000 ft (15,240 m).

- Roosevelt MOA. The Roosevelt MOA is located just east of the Okanogan MOA and covers an area of 5,413 nm<sup>2</sup> (18,566 km<sup>2</sup>). This MOA is divided into two sections. Roosevelt A has a floor of 9,000 ft (2,743 m) and a ceiling of 18,000 ft (5,486 m). Roosevelt B has a floor of 300 ft (91m) above the ground and a ceiling of 9,000 ft (2,743 m). ATCAAs associated with the Roosevelt MOA extends its airspace to 50,000 ft (15,240 m).
- W-570, located off the central coast of Oregon, is 4,470 nm<sup>2</sup> (15,330 km<sup>2</sup>) in size. The airspace begins at the ocean's surface and extends to 50,000 ft (15,240 m). This area is used by P-3 aircraft for reconnaissance training.
- W-93 is located south of W-570, off the coast of Oregon and northern California. The 4,652 nm<sup>2</sup> (15,960 km<sup>2</sup>) of airspace in W-570 is also used for P-3 reconnaissance training and extends from the surface to 50,000 ft (15,240 m).

*Land Range.* The land areas of the NWTRC study area, all of which are on Navy property, include the Seaplane Base Survival Area, OLF Coupeville, the EOD detonation training range at NBK-Bangor, and NAS Whidbey Island. Seaplane Base Survival Area comprises approximately 875 acres (354 hectares) of undeveloped Navy property, located adjacent to Crescent Harbor. It provides a robust suite of range capabilities for use in small unit amphibious and land tactical maneuvers, land navigation, and survival training. Additionally, Seaplane Base Survival Area has several unimproved helicopter landing zones, small boat landing beaches, and a parachute drop zone. Indian Island is located west of Marrowstone Island between the waters of Port Townsend and Whidbey Island. It is approximately 4.2 miles (6.7 km) long and oriented on a north-south axis. Indian Island is used by NSW to conduct insertion/extraction activities. All activities at Indian Island are covert in nature, and no live fire weapons or other ordnance are used.

Three alternatives are analyzed in the EIS/OEIS. Alternative 2 is the U.S. Navy's Preferred Alternative, because it would optimize the training capability of the NWTRC and meet U.S. Navy minimum required capabilities as documented in the U.S Navy Ranges Required Capabilities Document of September 8, 2005. Table 2-1 of the July 2009 U.S. Navy EFH Assessment describes the current and proposed activities in the NWTRC study area.

Implementation of Alternative 2 would include all elements of Alternative 1. That alternative consists of all training activities currently conducted, plus an increase in training activities to include force structure changes associated with the introduction of new weapon systems, vessels, and aircraft into the Fleet. Under Alternative 1, baseline-training activities would be increased. In addition, training activities associated with force structure changes would be implemented for the EA-18G Growler, Guided Missile Submarine (SSGN), P-8 Multimission Maritime Aircraft (MMA), and unmanned aerial systems. Force structure changes associated with new weapons systems would include new Air-to-Air missiles, and new sonobuoys.)

Alternative 2 would, in addition, include the following elements:

- In order to optimize training throughput and meet the FRTP, training activities of the types currently conducted would be increased over levels identified in Alternative 1;
- Range enhancements would be implemented, to include new electronic combat threat simulators/targets, development of a small scale non-explosive underwater training minefield, development of a Portable Undersea Tracking Range, and development of air and surface target services.

**Action Area**

According to the July 2009, preliminary final EIS/OEIS and EFH Assessment for the NWTRC:

The ocean areas of the NWTRC include surface and subsurface operating areas extending generally west from the coastline of Washington, Oregon, and Northern California for a distance of approximately 250 nm (463 km) into international waters (see Figure 1). Although this area extends to the coastline of these states, no training that involves live explosives is conducted within 3 nm of shore. Historically, as well as projected for the future, training within 12 nm seldom if ever occurs off the coast of Oregon and Northern California.

Pacific Northwest Ocean Surface/Subsurface OPAREA. The PACNW OPAREA is approximately 510 nm (945 km) in length from the northern boundary to the southern boundary, and 250 nm (463 km) from the coastline to the western boundary at 130° W longitude. The southern boundary of the OPAREA is at 40° N latitude, which corresponds to the northern boundary of Mendocino County in Northern California. Total surface area of the PACNW OPAREA is 122,400 nm<sup>2</sup> (420,163 km<sup>2</sup>).

- Warning Area 237. W-237 comprises 33,997 nm<sup>2</sup> (116,606 km<sup>2</sup>) of airspace that generally overlays the NWTRC Ocean OPAREAS off the coast of Washington, W-237 begins approximately 3 nm (5 km) off the coast and extends westward in international waters and airspace for a distance of approximately 250 nm (463 km) from the ocean surface up to several specified altitudes depending upon which sub-area is used. The floor of W-237 airspace begins at the ocean surface, and the ceiling varies between 27,000 ft (8,230 m) and unlimited altitude. 7
- W-570, located approximately 12 nm off the central coast of Oregon, is 4,470 nm<sup>2</sup> (15,330 km<sup>2</sup>) in size. The airspace begins at the ocean's surface and extends to 50,000 ft (15,240 m). This area is used by P-3 aircraft for reconnaissance training.
- W-93 is located south of W-570, approximately 12 nm off the coast of Oregon and northern California. The 4,652 nm<sup>2</sup> (15,960 km<sup>2</sup>) of airspace in W-570 is also used for P-3 reconnaissance training and extends from the surface to 50,000 ft (15,240 m).

The action area include habitat which has been designated as EFH for various life stages of Pacific coast groundfish, coastal pelagic species, and Pacific salmon. The action area also includes habitat which has been designated as habitat areas of particular concern (HAPC) for groundfish. HAPCs are specific habitat areas, a subset of the much larger area identified as EFH, that play a particularly important ecological role in the fish life cycle or that are especially sensitive, rare, or vulnerable. Estuaries, sea grass beds, canopy kelp, rocky reefs, and other "areas of interest" (e.g., seamounts, offshore banks, canyons) are designated Groundfish HAPCs.

**Effects of the Action**

The proposed project may adversely affect EFH for Pacific coast groundfish, coastal pelagic species, and Pacific salmon through activities that contact the substrate. All of the action area has been designated as EFH for coho, Chinook and pink salmon (PFMC 1999). All lifestages of the Pacific Coast groundfish (PFMC 2005) occur within the NWTRC (Table 1).

**Table 1.** Species of fish and life stages with designated EFH that may occur within the action area, activities and prey.

Groundfish Species	Life stage	Activity*	Prey
Arrowtooth flounder	Adults	All	Gadids, <i>Theragra chalcogramma</i> , krill, clupeids, shrimp
	Eggs	Unknown	
	Larvae		
Big skate	Adults	All	Crustaceans, fish
Black rockfish	Juveniles	Feeding, growth to maturity	
	Adults	All	
Blue rockfish	Juveniles	All	
	Adults	All	
	Larvae	Feeding	
Bocaccio	Juveniles	Feeding	Euphausiids, copepods
Butter sole	Adults	All	Polychaetes, molluscs, fish, decapod crustaceans, amphipods, shrimp, sea stars
Cabezon	Adults	All	Fish eggs, lobsters, molluscs, small fishes, crabs
California skate	Eggs	Unknown	
Canary rockfish	Juveniles	Feeding, growth to maturity	
Chilipepper	Adults	All	Clupeids, euphausiids, <i>Merluccius productus</i> , squids, copepods, euphausiids
	Juveniles	Feeding, growth to maturity	

Groundfish Species	Life stage	Activity*	Prey
Copper rockfish	Adults	All	Crustaceans, fish, shrimp, molluscs
Curlfin sole	Adults	All	Crustacean eggs, <i>Echiurid proboscises</i> , nudibranchs, polychaetes
Dusky rockfish	Adults	All	
English sole	Juveniles	Feeding, growth to maturity	Polychaetes, molluscs, cumaceans, copepods, amphipods, mysids
	Adults	All	Polychaetes, ophiuroids, molluscs, cumaceans, amphipods, crustaceans
Flathead sole	Adults	All	Polychaetes, mysids, shrimp, molluscs, clupeids, fish
Kelp greenling	Adults	All	Worms, crabs, octopi, shrimp, small fishes, brittle stars, snails
	Larvae		
Lingcod	Adults	All	Juvenile crab, demersal fish, squid, octopi
	Larvae	Feeding	Decapod larvae, copepods, euphausiids, copepod nauplii, copepod eggs, amphipods
Longnose skate	Adults	All	
Pacific cod	Juveniles		Amphipods, shrimp, copepods, crabs
	Larvae		Copepods
Pacific hake	Juveniles		Euphausiids
	Adults	All	
Pacific sanddab	Adults	All	Squids, octopi, crab larvae, clupeids
Petrale sole	Adults	All	Shrimp, <i>Eopsetta jordani</i> , euphausiids, ophiuroids, pelagic fishes
Quillback rockfish	Adults	All	Amphipods, molluscs, euphausiids, polychaetes, fish juveniles, shrimp, clupeids, crabs
Redstripe rockfish	Adults	All	Fish juveniles, squid, clupeids
Rex sole	Adults	All	Cumaceans, euphausiids, larvacea, polychaetes
Petrale sole	Adults	All	Shrimp, <i>Eopsetta jordani</i> , euphausiids, ophiuroids, pelagic fishes
Quillback rockfish	Adults	All	Amphipods, molluscs, euphausiids, polychaetes, fish juveniles, shrimp, clupeids, crabs

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Groundfish Species	Life stage	Activity*	Prey
Petrale sole	Adults	All	Shrimp, <i>Eopsetta jordani</i> , euphausiids, ophiuroids, pelagic fishes
Quillback rockfish	Adults	All	Amphipods, molluscs, euphausiids, polychaetes, fish juveniles, shrimp, clupeids, crabs
Redstripe rockfish	Adults	All	Fish juveniles, squid, clupeids
Rex sole	Adults	All	Cumaceans, euphausiids, larvacea, polychaetes
Rock sole	Adults	All	Tunicates, echinoderms, fish, molluscs, polychaetes, echiurans
Rosy rockfish	Adults	All	Crabs, shrimp
Sablefish	Adults		Octopi, clupeids, euphausiids, shrimp, rockfish
	Juveniles	Growth to Maturity	Krill, small fishes, squids, euphausiids, demersal fish, tunicates, cephalopods, amphipods, copepods
	Larvae	Feeding	
Sand sole	Adults	All	Polychaetes, clupeids, crabs, fish, mysids, shrimp, molluscs
	Juveniles	Growth to Maturity, feeding	Euphausiids, molluscs, mysids, polychaetes, shrimp
Silvergray rockfish	Adults	All	
Soupfin shark	Adults	All	Fish, invertebrates
	Juveniles	Growth to Maturity	Invertebrates, fish
Spiny dogfish	Adults	All	Pelagic fishes, invertebrates
Splitnose rockfish	Juveniles	Feeding	Copepods, cladocerans, amphipods
	Larvae		
Spotted rattfish	Adults	All	Amphipods, annelids, brittle stars, fish, algae, molluscs, squids, small crustacea, ostracods, opisthobranchs, nudibranchs
	Juveniles	Growth to Maturity	Small crustacea, squids, ostracods, opisthobranchs, nudibranchs, molluscs, fish, brittle stars, amphipods, algae, annelids
Spotted rattfish	Adults	All	Amphipods, annelids, brittle stars, fish, algae, molluscs, squids, small crustacea, ostracods, opisthobranchs, nudibranchs
	Juveniles	Growth to Maturity	Small crustacea, squids, ostracods, opisthobranchs, nudibranchs, molluscs, fish, brittle stars, amphipods, algae, annelids
Starry flounder	Adults	Growth to Maturity	Molluscs, fish juveniles, polychaetes, crabs
	Juveniles	Feeding	Polychaetes, copepods, amphipods
Stripetail rockfish	Adults	All	Euphausiids, copepods
	Juveniles	Growth to Maturity	Copepods

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Groundfish Species	Life stage	Activity*	Prey
Tiger rockfish	Adults	All	Juvenile rockfish, amphipods, fish juveniles, shrimp, clupeids, crabs
Vermilion rockfish	Adults		Clupeids, juvenile rockfish, krill, octopi, squids
Widow rockfish	Juveniles	Growth to Maturity, feeding	Copepods, copepod eggs, euphausiid eggs
Yellowtail rockfish	Adults	All	Clupeids, euphausiids, tunicates, mysids, salps, squid, krill, <i>Merluccius productus</i>
Coastal Pelagic Species			
Northern anchovy	Eggs		
	Larvae		
	Juvenile		
	Adult	All	Zooplankton
Pacific sardine	Eggs		
	Larvae		
	Juvenile		
	Adult	All	Zooplankton
Pacific mackerel	Eggs		
	Larvae		
	Juvenile		
	Adult	All	Zooplankton, micronekton
Jack mackerel	Adult		Krill, small crustacea
Market squid	Eggs		
	Larvae		
	Juvenile		
	Adult	All	Plankton, small crustacea, euphausiids, copepods
	Spawning		
Pacific Salmon			
Coho salmon**	Juvenile		
	Adults	Feeding	
Chinook salmon	Juvenile		Plankton, insects, small fish
	Adults	Feeding	
Pink Salmon	Juvenile		Plankton, insects, small fish
	Adults	Feeding	

\*Activity categories include breeding, feeding, growth to maturity, spawning, and unknown.

While the majority of ordnance rounds would be expended in W-237, the effects analysis of this assessment addresses the NWTRC Ocean OPAREAS for Oregon and Washington. Items expended during training include sonobuoys; parachutes; and nylon cord, some towed,

stationary, and remote-controlled targets; markers; chaff; inert munitions; torpedoes; and exploded and unexploded munitions, including missiles, bombs, and shells. Materials include a variety of metals, plastic, fiberglass, and batteries (preliminary final EIS/OEIS, page 3.6-17). According to the preliminary final EIS/OEIS (page 3.7-73) approximately 189,000 objects of potential concern to marine plants and invertebrates would be expended annually. The U.S. Navy states in their EFH Assessment that the majority of the expended materials would have no significant impact on fish or essential fish habitat in territorial or non-territorial waters because most of the missile fragments will lose their kinetic energy on impact with the water and will not injure fish or impact EFH that are in the area of the training. The U.S. Navy indicates that the majority of the expended materials would rapidly sink to the sea floor and over the mid- to long-term, “become encrusted by natural processes, and incorporated into the sea floor, with no significant accumulations in any particular area and no adverse effects to water quality or marine benthic communities.” In addition, assuming all ordnance would be expended evenly throughout W-237, the concentration of expended rounds under the proposed action would be approximately 6 per square nautical mile (1.6 per square kilometer). The U.S. Navy also noted that most marine litter comes from merchant shipping, which by implication has a much greater impact than generated by the U.S. Navy as a result of these continuing training exercises.

The NMFS does not concur with the conclusions drawn by the U.S. Navy, especially those related to expended materials becoming encrusted and not impacting EFH, and assuming that the material would be evenly distributed on the ocean floor. Primary effects to EFH include expended materials that result from training operations and impact waters and substrate – (*i.e.*, HAPCs, rockfish conservation areas, substrate important to overfished and/or rebuilding stocks such as canary rockfish, darkblotched rockfish, Pacific ocean perch, petrale sole, widow rockfish, yelloweye rockfish and habitat needed to support deep sea corals and sponges (structure forming benthic invertebrates) (NMFS 2010). It is important to note that the W-237H overlaps broadly with or is adjacent to areas that are currently under review by the PFMC for modification as groundfish essential fish habitat conservation areas – the Juan De Fuca Coral Canyons & Grays Canyon Sponge Reefs Important Ecological Areas.

Depending on the size, quantity, and distribution, accumulation and movement of the expended materials can have a long-term impact on hard bottom substrate and benthic organisms. The expended materials being produced by the U.S. Navy is a form of marine debris as defined by NOAA, that being, “Marine debris is typically defined as any man-made object discarded, disposed of, or abandoned that enters the coastal or marine environment.” (<http://marinedebris.noaa.gov>). While other sectors like merchant marine shipping, as noted in the EFH assessment, certainly contribute to the generation of marine debris, the U.S. Navy needs to account for the impacts resulting from their continued training operations and generation of marine debris in the form of expended materials.

Marine debris can damage habitats in a variety of different ways, (*e.g.*, scour, break, smother, and otherwise damage important marine habitat) that can result in a reduction in the structural complexity and degradation of habitats. Many of these habitats serve as the basis of marine ecosystems and thus they are critical to the survival of many other species. A two year study of marine debris caught in the NOAA groundfish trawl survey off the West Coast (2007 and 2008) by NMFS’ Northwest Fisheries Science Center (Fruh et al. 2008) demonstrated that military debris collected during the coast-wide survey was found off of California, presumably in areas of

historic military maneuvers. The trawl survey operates exclusively shoreward of 700 fathoms off of all three states. No military debris was encountered off the Oregon and Washington Coasts during the surveys because the trawl survey is not conducted in areas of known military operations off these two state coasts.

The U.S. Navy has been operating in the NWTRC since the early 1900s.<sup>1</sup> Although the U.S. Navy did reference some studies to support their contention that EFH would not be adversely affected as a result of the implementation of this project, they did not provide any monitoring data in the training area to support the conclusions drawn in their EFH assessment or EIS/OEIS. The U.S. Navy indicated in conversations with NMFS that there has never been a monitoring program to assess the effects of expended materials at any point during the operation of the NWTRC and support the conclusions in the EFH assessment and EIS/OEIS.

NMFS also notes that this EIS/OEIS addresses a 5-year period of U.S. Navy training activities, and that the U.S. Navy has expressed its intent to begin another NEPA review process for the subsequent 5-year training period. Many of the trust resources under NMFS jurisdiction, namely groundfish, have lifespans of several decades. With U.S. Navy training analyzed in 5-year segments, the cumulative effects of U.S. Navy at-sea training over time do not receive appropriate consideration with regard to EFH impacts.

The potential adverse effects on EFH as a result of this project's implementation could also affect important data collection efforts on the part of NMFS. The NMFS noted both in writing and in verbal communication with personnel of the U.S. Navy that both the Portable Undersea Tracking Range (PUTR) and the underwater training minefield discussed in the EIS/OEIS have the potential to negatively affect a number of NMFS' data collection and survey programs which are used to assess fish stocks. NMFS operates a coast-wide midwater acoustics survey, a juvenile species survey, a hook and line survey and a coast-wide bottom trawl survey on an annual basis. These surveys are conducted over a period of months and involve multiple vessels accessing areas of the shelf and slope over significant time windows. In particular, the NMFS Bottom Trawl Survey of Groundfish Resources is the nation's primary fisheries-independent data source on West Coast groundfish.

This survey has been conducted in various forms since 1977 and continued uninterrupted access to survey waters is vital to the continued integrity of its time series data. These data form the basis for a majority of the information for west coast groundfish stock assessments, EFH designations, and fishery management decision-making. If either the PUTR or the underwater training minefield are placed between the 25 m and 1,290 m depth contours, those training range enhancements could likely negatively affect how groundfish use the areas NMFS surveys due to habitat alterations. This would in turn affect the integrity of the survey, the data it collects, and reduce NMFS' ability to correctly characterize EFH for West Coast groundfish used for protection and conservation of those species and their habitats.

<sup>1</sup> In a personal communication between John Mosher of the U.S. Navy and Cathy Tortorici of NMFS in February, 2010, Mr. Mosher indicated that the final EIS would be using an operation date of since "World War II" and not since the 1900s.

### **Essential Fish Habitat Conservation Recommendations**

Pursuant to section 305(b)(4)(A) of the MSA, NMFS is required to provide EFH conservation recommendations to Federal agencies regarding actions that would adversely affect EFH. NMFS recommends that the U.S. Navy implement the following conservation measure to minimize the potential adverse effects to EFH for Pacific groundfish, coastal pelagics, and Pacific salmon:

1. Inventory portions of the action area to characterize the presence, absence, and quality of sensitive habitats such as HAPCs, rockfish conservation areas, substrate important to overfished and/or rebuilding stocks such as canary rockfish, darkblotched rockfish, Pacific ocean perch, petrale sole, widow rockfish, yelloweye rockfish and habitat needed to support deep sea corals and sponges (structure-forming benthic invertebrates) that are most likely to experience training on a regular basis. In conjunction with this inventory, the U.S. Navy should develop and implement a plan that minimizes and/or avoids substrate impacts and sensitive habitats, deep sea corals, and sponges.
2. Develop and implement a long-term monitoring and adaptive plan in coordination with NMFS that addresses the fate, transport and effects of expended materials on EFH resulting from implementation of the proposed action. This monitoring plan should be developed and implemented in coordination with the NW Fisheries Science Center and NMFS' NW Region Sustainable Fisheries Division in order to build upon NOAA's current existing data collection efforts and minimize conflicts with our on-going, at-sea research activities. The results of the monitoring plan should be reviewed on an annual basis with NMFS to determine how to adjust training operations to avoid and/or minimize impacts to EFH.
3. Coordinate with NMFS on any further analysis to be conducted on the placement of any underwater training minefield proposed for placement off the coasts of Oregon and Washington State to determine, minimize, and/or avoid impacts to EFH.

### **Statutory Response Requirement**

Federal agencies are required to provide a detailed written response to NMFS' EFH conservation recommendations within 30 days of receipt of these recommendations [50 CFR 600.920(k) (1)]. The response must include a description of measures proposed to avoid, mitigate, or offset the adverse affects of the activity on EFH. If the response is inconsistent with the EFH conservation recommendations, the response must explain the reasons for not following the recommendations. The reasons must include the scientific justification for any disagreements over the anticipated effects of the proposed action and the measures needed to avoid, minimize, mitigate, or offset such effects.

Where the U.S. Navy believes they do not have authority or jurisdiction to implement EFH conservation recommendations, NMFS requests the U.S. Navy provide, in writing, the rules and regulations that limit their authority or jurisdiction to condition permits accordingly.

Due to increased oversight of overall EFH program effectiveness by the Office of Management and Budget, NMFS established a quarterly reporting requirement to determine how many conservation recommendations are provided as part of each EFH consultation and how many are

adopted by the action agency. Therefore, in your statutory reply to the EFH portion of this consultation, we ask that you clearly identify the number of conservation recommendations accepted.

#### **Supplemental Consultation**

The U.S. Navy must reinitiate EFH consultation with NMFS if the proposed action is substantially revised in a way that may adversely affect EFH, or if new information becomes available that affects the basis for NMFS' EFH conservation recommendations [50 CFR 600.920(k)].

#### **DATA QUALITY ACT DOCUMENTATION AND PRE-DISSEMINATION REVIEW**

Section 515 of the Treasury and General Government Appropriations Act of 2001 (Public Law 106-554) (Data Quality Act) specifies three components contributing to the quality of a document. They are utility, integrity, and objectivity. This section of the EFH consultation addresses these Data Quality Act (DQA) components, documents compliance with the DQA, and certifies that this consultation has undergone pre-dissemination review.

**Utility:** Utility principally refers to ensuring that the information contained in this consultation is helpful, serviceable, and beneficial to the intended users.

This EFH consultation concludes that the proposed action will adversely modify EFH, and includes three conservation recommendations to the action agency that avoids, minimizes, or otherwise offsets those adverse modifications. The U.S. Navy may authorize this action in accordance with its authorities. The intended users are the U.S. Navy. Individual copies were provided to the above-listed entities. This consultation will be posted on NMFS Northwest Region website (<http://www.nwr.noaa.gov>). The format and naming adheres to conventional standards for style.

**Integrity:** This consultation was completed on a computer system managed by NMFS in accordance with relevant information technology security policies and standards set out in Appendix III, 'Security of Automated Information Resources,' Office of Management and Budget Circular A-130; the Computer Security Act; and the Government Information Security Reform Act.

#### **Objectivity:**

**Information Product Category:** Natural Resource Plan.

**Standards:** This consultation and supporting documents are clear, concise, complete, and unbiased; and were developed using commonly accepted scientific research methods. They adhere to published standards including MSA implementing regulations regarding EFH, 50 CFR 600.920(j).

**Best Available Information:** This consultation and supporting documents use the best available information, as referenced in the Literature Cited section. The analyses in this Opinion/EFH consultation contain more background on information sources and quality.

**Referencing:** All supporting materials, information, data and analyses are properly referenced, consistent with standard scientific referencing style.

**Review Process:** This consultation was drafted by NMFS staff with training in MSA implementation, and reviewed in accordance with Northwest Region quality control and assurance processes.

## LITERATURE CITED

- Fruh, E., Johnson, M., Keller, A., Simon, V., Buchanan, J., Kamikawa, D., Bosley, K., and Tuttle, V. Benthic Marine Debris sampled during the 2007 and 2008 Northwest Fisheries Science Center's West Coast Groundfish trawl survey.
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## DEPARTMENT OF THE NAVY

COMMANDER  
UNITED STATES PACIFIC FLEET  
250 MAKALAPA DRIVE  
PEARL HARBOR, HAWAII 96860-3131

IN REPLY REFER TO:  
5090  
Ser N01CE1/0676  
7 Jul 10

Michael Tehan  
Assistant Regional Administrator  
Habitat Conservation Division  
National Marine Fisheries Service  
Northwest Region  
7600 Sand Point Way N.E., Bldg. 1  
Seattle, WA 98115

Dear Mr. Tehan:

In accordance with the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and regulations governing conservation of Essential Fish Habitat (EFH), this responds to National Marine Fisheries Service's (NMFS) May 20, 2010 conservation recommendations for proposed military readiness activities identified in the U.S. Pacific Fleet's Northwest Training Range Complex (NWTRC) Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS). The Navy received your letter on June 11, 2010, and this letter serves as 30-day written response pursuant to section 305(b)(4)(B) of the MSA.

Having analyzed the potential for impacts based on the best available scientific data, the Navy contends that the proposed action in the NWTRC EIS/OEIS will not reduce the quality or quantity of EFH and maintains its determination of no adverse effect. Although the Navy's proposed training will not result in adverse impacts to EFH as described in the EFH Assessment for the NWTRC EIS/OEIS, the Navy herein responds to NMFS' three (3) EFH conservation recommendations provided in your letter as required by the MSA:

NMFS EFH Conservation Recommendation 1:

Inventory portions of the action area to characterize the presence, absence, and quality of sensitive habitats such as Habitat Areas of Particular Concern (HAPC), rockfish conservation areas, substrate important to overfished and/or rebuilding stocks such as canary rockfish, dark blotched rockfish, Pacific ocean perch, petrale sole, widow rockfish, yelloweye rockfish and habitat needed to support deep sea corals and sponges (structure forming benthic invertebrates) that are most likely to experience training on a

regular basis. In conjunction with this inventory, the U.S. Navy should develop and implement a plan that minimizes and/or avoids substrate impacts and sensitive habitats, deep sea corals, and sponges.

Navy Response:

a. The Navy is unable to commit to inventorying portions of the action area to assist NMFS in identifying sensitive habitats as requested in this conservation recommendation. In the off-shore areas of the NWTRC, there are no specific areas that experience training at any more frequency than any other area within the NWTRC. The vast majority (approximately 99%) of Navy training in the NWTRC occurs off the Washington State coast within the military Warning Area designated as W-237. As indicated in the EIS/OEIS, W-237 is a smaller subset of the entire NWTRC, though still encompasses approximately 33,997 square nautical miles of ocean. Training distribution is characterized as being randomly dispersed across W-237 and does not necessarily occur in the same location twice. It is not within the Navy's charter to conduct large area ocean bottom surveys, nor is it budgeted and funded for such undertakings. Additionally, it is felt that this recommendation is not economically practical given the large areas of seafloor and extreme water depths present.

b. Though the Navy does not intend to conduct inventories to identify additional sensitive habitats within the NWTRC as discussed above, the presence of known sensitive areas, such as HAPC were included in the analysis of the potential effects to EFH. By overlaying HAPC on the Navy's primary training area (W-237) it was determined that training events largely fall outside of identified sensitive areas, as depicted in Figure 3.7-1 of the Preliminary Final EIS/OEIS (enclosure 1). When referring to Figure 3.7-1, it is noteworthy that although the additional Warning Areas W-570 and W-93 do overlay HAPC, that only approximately one percent of the training in the NWTRC is conducted in these areas with almost all the events being aircraft training that would have no effect on in-water resources. Despite no adverse impacts to EFH, the Navy supports working with NMFS to improve the sharing of data, and as additional research information for habitat areas becomes available, the Navy will continue to incorporate such results into future environmental planning and assessments of impact for the NWTRC.

NMFS EFH Conservation Recommendation 2:

Develop and implement a long-term monitoring and adaptive plan in coordination with NMFS that addresses the fate, transport and effects of expended materials on EFH resulting from implementation of the proposed action. This monitoring plan should be developed and implemented in coordination with the NW Fisheries Science Center and the NMFS' NW Region Sustainable Fisheries Division in order to build upon NOAA's current existing data collection efforts and minimize conflicts with our on-going, at-sea research activities. The results of the monitoring plan should be reviewed on an annual basis with NMFS to determine how to adjust training operations to avoid and/or minimize impacts to EFH.

Navy Response:

a. Sufficient data currently does not exist to justify commitment to an annual review and potential adjustments to vital training, nor to the development of a long term monitoring plan based on perceived impacts to EFH. As discussed in the response to conservation recommendation 1 above and presented in the EIS/OEIS, the majority of training events in the NWTRC occur in W-237 (approximately 99%), with a generally random distribution across this training area. Assuming an even distribution of military expended materials (MEM) within W-237, the concentration of MEM would be approximately 5.6 individual items per square nautical mile per year, with more than 60 percent of the items being small caliber bullets. Given the quantity, wide dispersion and low potential for accumulation, the Navy stands by its determination that MEM will not reduce the long term quality or quantity of EFH. The Navy contends that this conclusion is supported by the 2007 and 2008 NOAA groundfish trawl survey conducted off the west coast by NMFS' Northwest Fisheries Science Center (Fruh et al. 2008). The conservation recommendations letter discounts the relevance of this study to the Navy's impact determination, stating that "No military debris was encountered off the Oregon and Washington Coasts during the surveys because the trawl survey is not conducted in areas of known military operations off these two state coasts." The Navy disagrees with this statement, as trawls for the study were in fact conducted through W-237 where military training is known to have occurred, as indicated on Figure 3.3-1 of the EIS/OEIS, overlaying trawl study locations with NWTRC training areas (enclosure 2).

b. The above notwithstanding, the Navy believes that the general intent of this conservation recommendation is consistent and compatible with its goals to better understand the disposition of

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MEM in the ocean. Further, the Navy agrees that regional coordination is necessary to help avoid conflicts between NMFS' ongoing, at-sea research activities and Navy training.

NMFS EFH Conservation Recommendation 3:

Coordinate with NMFS on any further analysis to be conducted on the placement of any underwater training minefield proposed to be placed off the coasts of Oregon and Washington State to determine, minimize, and/or avoid impacts to EFH.

Navy Response:

The Navy concurs with this conservation recommendation and intends to coordinate with NMFS on any further environmental analysis and planning to address the placement of the proposed underwater training minefield. Though the NWTRC EIS/OEIS includes a quantitative study regarding training activities associated with this potential range enhancement, location alternatives have not yet been determined or evaluated. Navy and NMFS interaction would be beneficial to help minimize environmental effects and potential impacts to regional fisheries.

In response to your request that the Navy clearly identify the number of conservation recommendations accepted; one (1) of the three (3) conservations recommendations provided by NMFS was fully accepted by the Navy.

The Navy appreciates the NMFS Northwest Regional office's expertise, and review and input on the NWTRC EIS/OEIS project. Realistic training at sea is critical to the Navy's preparedness, and analyses like this one are a vital piece of the Navy's dedication to environmental stewardship in the completion of its mission. I would like to reaffirm the U.S. Pacific Fleet's commitment to working with your agency in support of our mutual goals. My point of contact on this matter is Mr. John Mosher, at 360-257-3234 or john.g.mosher@navy.mil.

Sincerely,



D. A. MCNAIR  
Captain, U.S. Navy  
Deputy Fleet Engineer  
By direction

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7 Jul 10

Enclosures: 1. HAPC within the PACNW Study Area  
2. Marine Debris Survey Tow Locations

Copy to:  
OPNAV N45  
Navy Region Northwest (N40)  
Naval Facilities Engineering Command Northwest (N45)

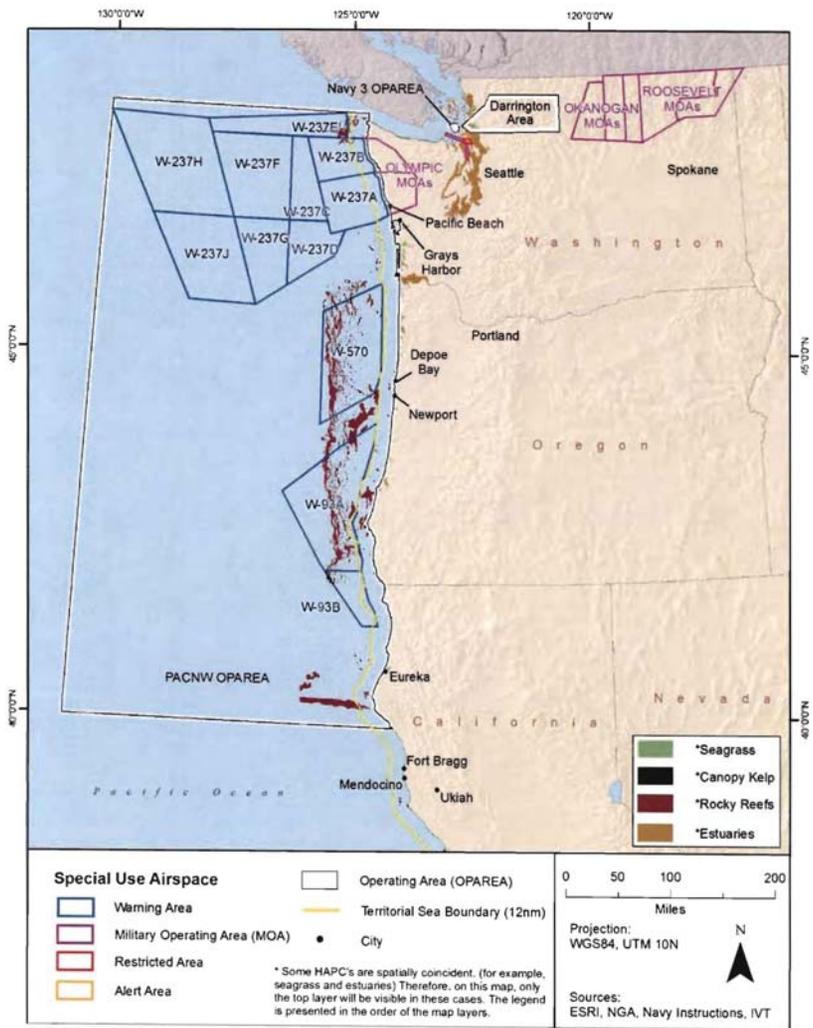


Figure 3.7-1: Habitat Areas of Particular Concern within the PACNW Study Area

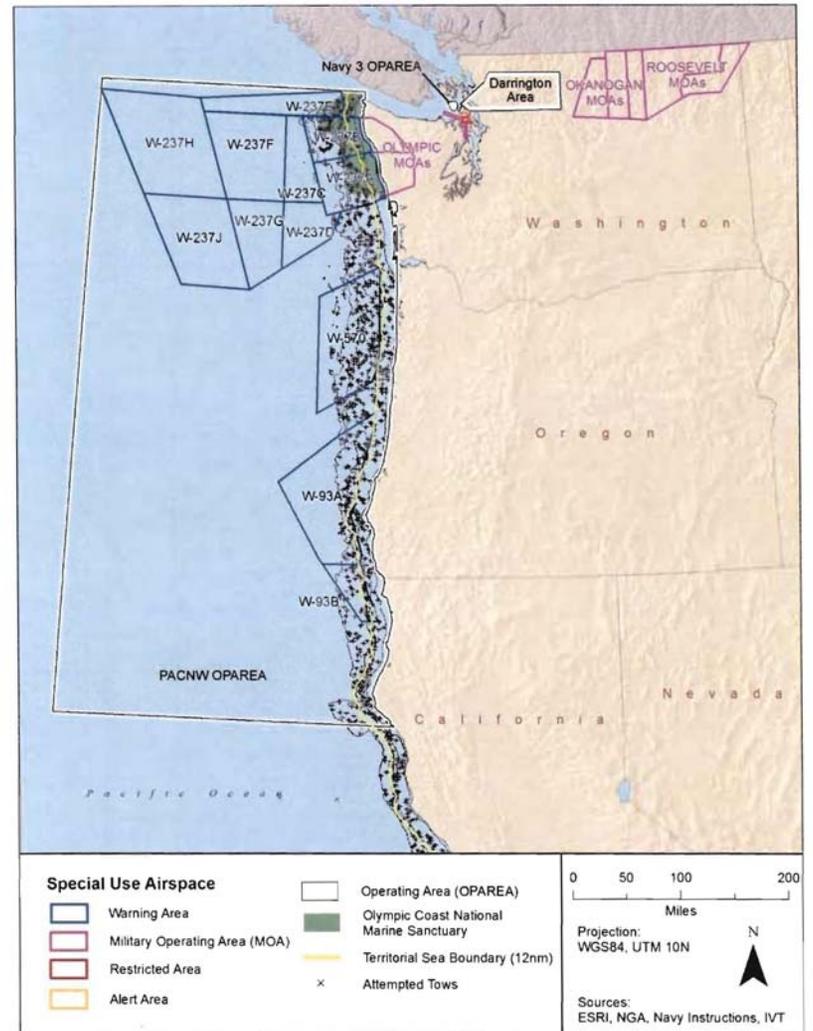


Figure 3.3-1: 2007-2008 Marine Debris Survey Tow Locations

