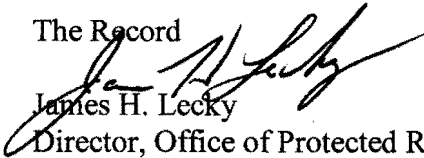




UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

MEMORANDUM FOR: The Record

FROM: 
James H. Lecky
Director, Office of Protected Resources

SUBJECT: Incidental Take Statement for the U.S. Navy's Southern California Range Complex Training and Research Activities from January 22, 2010 to January 21, 2011 and the National Marine Fisheries Service's (NMFS) Permits Division's Letter of Authorization to the U.S. Navy to "Take" Marine Mammals Incidental to the Conduct of Training and Research Activities in the Southern California Range Complex from January 22, 2010 to January 21, 2011

On January 14, 2009, NMFS finalized a programmatic Biological Opinion (BiOp) pursuant to section 7(a)(2) of the Endangered Species Act (ESA) related to the effects of Navy training operations in the Southern California (SOCAL) Range Complex. NMFS assessed the effects of the Navy's program (e.g., Composite Training Unit Exercises and Joint Task Force Exercises, other training activities, and Research, Development, Test and Evaluations) that would occur in the SOCAL Range Complex over a five-year period beginning in January 2009 and ending in January 2014. NMFS also evaluated the effects of NMFS' Permits Division's proposal to promulgate five-year regulations under the Marine Mammal Protection Act (MMPA) that would establish a framework for the issuance of annual Letters of Authorization (LOA) to take marine mammals incidental to Navy training exercises in the SOCAL Range Complex.

After considering the five-year actions referenced above, NMFS concluded in its programmatic BiOp that the proposed actions conducted in the SOCAL Range Complex each year for a five-year period beginning in January 2009 were likely to adversely affect, but not likely to jeopardize the continued existence of threatened and endangered species under NMFS' jurisdiction. Moreover, NMFS concluded that no critical habitat had been designated for endangered or threatened species in the action area, so the proposed actions were not likely to result in the destruction or adverse modification of designated critical habitat. NMFS did not issue an incidental take statement for listed marine mammals at that time because incidental take of marine mammals under section 101(a)(5)(A) of the MMPA had not been authorized. NMFS stated that it would identify the amount or extent of take associated with proposed training activities in the SOCAL Range Complex when annual MMPA LOAs were reviewed for compliance with section 7 of the ESA.



On January 22, 2009, NMFS finalized an annual BiOp in which it evaluated the Navy's proposal to conduct training exercises in the SOCAL Range Complex for a twelve-month period beginning January 22, 2009, and NMFS' Permit Division's issuance of the 2009 MMPA LOA. The 2009 annual BiOp considered a suite of Navy exercises involving various major exercises, unit-level exercises and research, development, test and evaluation activities (see "Description of Proposed Action" in 2009 BiOp). Similar to the 2008 programmatic BiOp, NMFS concluded that the Navy's 2009 training exercises and research, development, test and evaluation activities and NMFS' issuance of the LOA over the twelve-month period beginning on January 22, 2009, were likely to adversely affect listed species, but were not likely to jeopardize the continued existence of threatened and endangered species under NMFS' jurisdiction. Likewise, NMFS concluded the proposed actions were not likely to result in the destruction or adverse modification of critical habitat because no critical habitat had been designated. NMFS issued an incidental take statement in 2009 specifying the amount or extent of take of listed marine mammals and identified Reasonable and Prudent Measures and Terms and Conditions.

NMFS has evaluated the Navy's 2010-2011 MMPA LOA request for training and research activities in the SOCAL Range Complex to determine whether a new biological opinion is necessary this year. After reviewing the record and the available scientific literature, and having considered NMFS' prior analyses, we have determined that the actions proposed to be taken in 2010-2011 (i.e., Navy training and research and NMFS' Permits Division's issuance of a LOA) and the effects of these actions fall within the scope of the prior analyses, with the exception of black abalone (*Haliotis cracherodi*). Black abalone was listed as endangered on January 19, 2009 (January 14, 2009, 74 FR 1937) and was not considered in the programmatic biological opinion. We have reviewed the available information and analyses related to black abalone and conclude that the proposed activities may affect, but are not likely to adversely affect endangered black abalone because their probability of occurring in the action area during the proposed exercises is sufficiently small to be discountable (see Incidental Take Statement for more information). Therefore, incidental take of this species is not anticipated and not authorized in the incidental take statement.

Thus, with the exception of black abalone, no additional analysis is necessary under the ESA for the 2010-2011 activities. Our findings of "no jeopardy" and not likely to result in the destruction or adverse modification of critical habitat apply to the 2010 actions, and I have issued an incidental take statement to accompany the 2009 SOCAL Programmatic BiOp.

Enclosure

INCIDENTAL TAKE STATEMENT
U.S. Navy Training and Research Activities
Southern California Range Complex
January 22, 2010 – January 21, 2011

Proposed Action

This incidental take statement addresses the U.S. Navy's proposal to conduct training and research activities in the Southern California Range Complex and the Permits Division's Marine Mammal Protection Act (16 U.S.C. 1361 *et seq.*) Letter of Authorization for incidental take resulting from such activities. These activities consist of:

1. Major exercises each year in the Southern California Operating Area (Composite Training Unit Exercises and Joint Task Force Exercises),
2. Unit-Level training exercises,
3. Research, Development, Test, and Evaluation Activities,
4. Establishment of a West Coast Shallow Water Training Range, and
5. Expansion and relocation of a Shallow Water Minefield.

These activities are described in greater detail in the January 14, 2009, NMFS programmatic biological opinion on the U.S. Navy's proposal to conduct training exercises and research activities in the Southern California Range Complex and the Permits' Division's final rule establishing a framework for the issuance of annual Letters of Authorization (LOA) to take marine mammals incidental to Navy training exercises in the SOCAL Range Complex (January 21, 2009).

The Permits Division's Letter of Authorization does not address the establishment of a West Coast Shallow Water Training Range or the expansion or relocation of a Shallow Water Minefield, although any "take" of marine mammals resulting from the use of mid-frequency active sonar and underwater detonations that would occur in these areas is included in the Letter of Authorization. The Letter of Authorization that the Permits Division proposes to issue to the U.S. Navy addresses the "take" of marine mammals associated with up to 1,977 hours of AN/SQS-53, 494 hours of AN/SQS-56, 1,600 hours of AN/SLQ-25A (NIXIE), 2,719 dips of helicopter dipping sonar (AN/AQS-22), 4,256 SSQ-62 sonobuoys, 1,150 SSQ-125 sonobuoys, 87 MK-48 torpedo events, 84 MK-46 torpedo events, 815 hours of submarine mounted sonar (AN/BQQ-10), and 122 hours of submarine navigational sonar. Take of marine mammals is also proposed from the detonation of underwater explosions during training events.

We reviewed the Navy's proposed activities as described in their October 1, 2009, request for a Letter of Authorization Under the Marine Mammal Protection Act for Incidental Harassment of Marine Mammals Resulting from U.S. Navy Training and Research Activities in the Southern California Range Complex for the period between January 22, 2010 through January 21, 2011. Based on our review, we have determined that the actions proposed to be taken in 2010-2011 (e.g., Navy training and research and NMFS' Permits Division's issuance of a LOA) and the effects of these actions fall within the scope of the prior analyses and re-affirm our previous

finding of likely to adversely affect listed species, but not likely to jeopardize the continued existence of threatened and endangered species under NMFS' jurisdiction. However, the effects of these actions on black abalone (*Haliotis cracherodi*) (listed as endangered on January 19, 2009 (January 14, 2009, 74 FR 1937) had not been considered in the programmatic biological opinion and we provide our not likely to adversely affect analysis below.

We reviewed the Navy's 2008 Biological Assessment of the Southern California Range Complex, 2008 Southern California Range Complex EIS, subsequent information provided on January 12, 2010 (Johnson 2010), and the reference material used in the 2009 black abalone listing determination to determine co-occurrence of Navy activities with black abalone, their habitat, and possible effects to the species.

The Black abalone is a large gastropod mollusk ranging from approximately Pt. Arena in northern California, USA, to Bahia Tortugas and Isla Guadalupe, Mexico. Of all abalone species found in California, the black abalone is bathymetrically the most shallow, occurring primarily in rocky intertidal habitats (Morris *et al.*, 1980). Black abalone range vertically from the high intertidal zone to 6 m depth, with most animals found in middle and lower intertidal. In highly exposed locations downwind of large offshore kelp beds, the majority of abalone may be found in the high intertidal where drift kelp fragments tend to be concentrated by breaking surf. This pattern may be a response to food availability, given that kelp is a major part of the black abalone diet.

Populations of black abalone on offshore Islands, especially those of southern California, were large prior to the middle 1980s, but have declined significantly beginning in southern California. The first evidence of this decline came from Palos Verdes in the late 1970s (Miller and Lawrenz-Miller, 1993) and early 1980s. Black abalone populations at San Nicolas Island have been monitored since 1981 (VanBlaricom 1993). Prior to 1992 mean abalone densities ranged from 4 to over 30 m⁻² and dropped to < 1 m⁻² between 1992 and 1996. From 1985 to 1989, mean densities for black abalone populations on Anacapa, Santa Rosa, and Santa Barbara islands ranged from 20 to 50 m⁻² on early visits, but fell to < 10 m⁻² by 1989 (Richards and Davis, 1993). A survey conducted in January 2008 at San Clemente found only 10 individuals (USN 2008b). The declines largely are due to excessive harvest in commercial and recreational fisheries and mass mortalities associated with withering syndrome—a lethal disease caused by a *Rickettsia*-like prokaryotic pathogen of unknown origin that invades digestive epithelial cells and disrupts absorption of digested materials from the gut lumen into the tissues.

The effects to black abalone from sound-producing activities associated with the U.S. Navy training and research activities in the Southern California Range Complex and NMFS' issuance of an LOA are not known. Other operations undertaken as part of Composite Training Unit or Joint Task Force Exercises, such as those involving underwater detonations, are not likely to adversely affect black abalone because the number of bottom-placed charges are few, these charges are not likely to adversely affect rocky habitat, and Sinking Exercises occur in at least 3,000 m of water, where black abalone are non-existent. Black abalone could be exposed to sea-to-shore activities (amphibious assault, insertion and extraction) and Naval Surface Fire Support. However, if the U.S. Navy limits sea-to-shore activities to areas that do not support black abalone, as stated in their EIS (USN 2008b) and supplemental material (Johnson 2010) black

abalone would not be affected. The land impact areas and associated shoreline where Naval Surface Fire Support would occur are limited mostly to sandy beaches. Intertidal rocky substrate does occur in one of the impact areas, however black abalone were not observed there during the 2008 survey (Johnson 2010). Cable laying and associated equipment will be limited to a minimum depth of 60 meters and in sandy substrate, where black abalone are non-existent. Consequently, we conclude that the proposed Composite Training Unit or Joint Task Force Exercises may affect, but are not likely to adversely affect endangered black abalone because their probability of occurring in the action area during the proposed exercises is also sufficiently small to be discountable. Therefore, incidental take of this species is not anticipated and not authorized in this incidental take statement, which accompanies the 2009 SOCAL Programmatic Biological Opinion.

Section 9 of the ESA and Federal regulation pursuant to section 4(d) of the ESA prohibits the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by NMFS to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2) of the ESA, taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

The measures described below, which are non-discretionary, must be implemented by NMFS' Permits, Conservation and Education Division and the U.S. Navy so they become binding conditions of any permit issued to the U.S. Navy, as appropriate, in order for the exemption in section 7(o)(2) to apply. NMFS' Permits, Conservation, and Education Division has a continuing duty to regulate the activity covered by this Incidental Take Statement. If NMFS' Permits, Conservation and Education Division (1) fails to require the U.S. Navy to adhere to the terms and conditions of the Incidental Take Statement through enforceable terms that are added to the permit or grant document, and/or (2) fails to retain oversight to ensure compliance with these terms and conditions, the protective coverage of section 7(o)(2) may lapse.

Amount or Extent of Take Anticipated

The section 7 regulations require NMFS to estimate the number of individuals that may be taken by proposed actions or the extent of land or marine area that may be affected by an action, if we cannot assign numerical limits for animals that could be incidentally taken during the course of an action (Federal Register 51, June 3, 1986, page 19953). The amount of take resulting from active sonar transmissions was difficult to estimate because we have no empirical information on (a) the actual number of listed species that are likely to occur in the different site, (b) the actual number of individuals of those species that are likely to be exposed to active sonar transmissions, (c) the circumstances associated with any exposure, and (d) the range of responses we would expect different individuals of the different species to exhibit upon exposure.

In NMFS January 22, 2009, biological opinion and NMFS January 14, 2009, programmatic biological opinion on the U.S. Navy activities in the Southern California Range Complex and Permits Division Letter of Authorization for such activities, an empirical Bayesian analysis was used to estimate the number of animals in the exposed population that might respond in particular ways, we multiplied our exposure estimates (which provided us with the number of instances of exposure) by the posterior probabilities for these responses (which identify the probability of a particular response given an exposure). To estimate the number of animals that might be “taken,” we classified the suite of responses as one or more form of “take” and estimated the number of animals that might be “taken” by (1) multiplying the number of animals exposed the probability of particular responses given an exposure; (2) classifying particular responses as one or more form of “take” (as that term is defined by the ESA and implementing regulations that further define “harm”); then (3) adding the number of exposure events that are expected to produce responses that we would consider “take.” The result represents our “take” estimate.

One limitation of this approach is that it estimates the number of animals that might be “taken” without explicitly incorporating the influence of the received level on those probabilities although received levels are almost certain to influence, if not determine, an animal’s response to active sonar. To consider the potential effects of received level on these “take” estimates, we conducted logistic regression analyses to consider the relationship between received level and the probability of responses that would generally represent “behavioral disturbance.” The two approaches differed by about 1 percent resulting in the same estimated number of “take” or differences ranging from a low of 1 animal to a high of 33 “take” occurrences.

Table 1. Estimates of the number of instances in which endangered or threatened marine mammals that might be “taken,” in the form of behavioral harassment as a result of exposure to the training exercises and other activities the U.S. Navy plans to conduct in the Southern California Range Complex from January 2010 through January 2011

Species	Number of Instances of Harassment Resulting From Exposure Events Involving			Totals
	Active Sonar or Other Environmental Cues from Surface Vessels ¹	Underwater Detonations		
		Harassment	Harm	
Blue whale	102	4		106
Fin whale	35	3	-	38
Humpback whale	1	0	-	1
Sperm whale	27	3	-	30
Guadalupe fur seal	870	4	-	874
Totals		14	0	

Notes 1 These estimates include animals that respond to vessels involved in major training exercises (rather than unit-level training or RDT&E activities) and that are between 600 meters and 2 kilometers of individual animals. The estimates assume the ships are moving at speeds of at least 10 knots and undergo frequent or periodic course changes

The instances of harassment identified in Table 1 would generally represent changes from

foraging, resting, milling, and other behavioral states that require lower energy expenditures to traveling, avoidance, and behavioral states that require higher energy expenditures and, therefore, would represent significant disruptions of the normal behavioral patterns of the animals that have been exposed. We grouped responses to active sonar and responses to vessel traffic and other environmental cues associated with the surface vessels involved in major training exercises because we assume animals would respond to a suite of environmental cues that include sound fields produced by active sonar, sounds produced by the engines of surface vessels, sounds produced by displacement hulls, and other sounds associated with training exercises. That is, we assume endangered marine mammals will perceive and respond to all of the environmental cues associated with an exercise rather than the single stimulus represented by active sonar. Further, we assume endangered marine mammals would recognize cues that suggest that ships are moving away from them rather than approaching them and they would respond differently to both situations.

Because of their hearing sensitivities, we generally expect fin and sei whales to change their behavior in response to cues from the vessels rather than to the sound field produced by active sonar and the estimates in Table reflect that expectation. However, we assume that humpback and sperm whales would change their behavior in response to the sound field produced by active sonar and cues from the vessels involved in training exercises.

Effect of the Take

NMFS 2009 biological opinion as well as NMFS 2009 programmatic biological opinion on the U.S. Navy activities and Permits Division Letter of Authorization for the Southern California Range Complex, determined that the number of individuals that might be exposed to mid-frequency active sonar associated with the training exercises and other activities the U.S. Navy plans to conduct in the Southern California Range Complex and are likely to respond to that exposure in ways that NMFS would classify as "take" as that term is defined pursuant to section 3 of the Endangered Species Act is not likely to jeopardize the continued existence of blue, fin, humpback, sei, or sperm whales, Guadalupe fur seals, or endangered or threatened sea turtles. Although the biological significance of the animal's behavioral responses remains unknown, exposure to active sonar transmissions could disrupt one or more behavioral patterns that are essential to an individual animal's life history or to the animal's contribution to a population. For the proposed action, behavioral responses that result from active sonar transmissions and any associated disruptions are expected to be temporary and would not affect the reproduction, survival, or recovery of these species.

Reasonable and Prudent Measures

The National Marine Fisheries Service believes the following reasonable and prudent measures are necessary and appropriate to minimize the impacts of incidental take on threatened and endangered species:

1. The U.S. Navy shall submit reports that identify the general location, timing, number of sonar hours and other aspects of the training exercises and other activities they conduct in the Southern California Range Complex over the next twelve months.
2. All activities must comply with the Letter of Authorization issued under section 101(a)(5)(A) of the Marine Mammal Protection Act and the implementing regulations at 50 CFR 216.270.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the Endangered Species Act of 1973, as amended, NMFS' Permits, Conservation and Education Division and the U.S. Navy must comply with the following terms and conditions, which implements the reasonable and prudent measures described above and outlines the reporting requirements required by the section 7 regulations (50 CFR 402.14(i)).

1. Annual Southern California Exercise Report - The Navy shall submit an Annual Southern California Exercise Report on October 1 of every year (covering data gathered through August 1 of the same year).

(1) MFAS/HFAS Major Training Exercises - This section shall contain the following information for Major Training Exercises conducted in the Southern California Range Complex:

(i) Exercise Information (for each MTE):

- (A) Exercise designator
- (B) Date that exercise began and ended
- (C) Location
- (D) Number and types of active sources used in the exercise
- (E) Number and types of passive acoustic sources used in exercise
- (F) Number and types of vessels, aircraft, etc., participating in exercise
- (G) Total hours of observation by watchstanders
- (H) Total hours of all active sonar source operation
- (I) Total hours of each active sonar source (along with explanation of how hours are calculated for sources typically quantified in alternate way (buoys, torpedoes, etc.)).
- (J) Wave height (high, low, and average during exercise)

(ii) Individual marine mammal sighting info (for each sighting in each MTE)

- (A) Location of sighting
- (B) Species (if not possible – indication of whale/dolphin/pinniped)
- (C) Number of individuals
- (D) Calves observed (y/n)
- (E) Initial Detection Sensor
- (F) Indication of specific type of platform observation made from (including, for example, what type of surface vessel, i.e., FFG, DDG, or CG)

- (G) Length of time observers maintained visual contact with marine mammal
 - (H) Wave height (in feet)
 - (I) Visibility
 - (J) Sonar source in use (y/n).
 - (K) Indication of whether animal is <200yd, 200-500yd, 500-1000yd, 1000-2000yd, or >2000yd from sonar source in (J) above.
 - (L) Mitigation Implementation – Whether operation of sonar sensor was delayed, or sonar was powered or shut down, and how long the delay was.
 - (M) If source in use (J) is hullmounted, true bearing of animal from ship, true direction of ship's travel, and estimation of animal's motion relative to ship (opening, closing, parallel)
 - (N) Observed behavior – Watchstanders shall 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.)
- (iii) An evaluation (based on data gathered during all of the MTEs) of the effectiveness of mitigation measures designed to avoid exposing to mid-frequency sonar. This evaluation shall identify the specific observations that support any conclusions the Navy reaches about the effectiveness of the mitigation.
- (2) ASW Summary - This section shall include the following information as summarized from both MTEs and non-major training exercises (i.e., unit-level exercises):
- (i) 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 Impact Report - To the extent practicable, the Navy, in coordination with NMFS, shall develop and implement a method of annually reporting non-major (i.e., other than Exercises) training exercises utilizing hull-mounted sonar. The report shall present an annual (and seasonal, where practicable) depiction of non-major training exercises geographically across the SOCAL. The Navy shall include (in the SOCAL annual report) a brief annual progress update on the status of development until an agreed-upon (with NMFS) method has been developed and implemented.

- (3) SINKEXs - This section of the report shall include the following information for each SINKEX completed that year:
- (i) *Exercise information (gathered for each SINKEX):*
 - (A) Location
 - (B) Date and time exercise began and ended
 - (C) Total hours of observation by watchstanders before, during, and after exercise
 - (D) Total number and types of rounds expended / explosives detonated
 - (E) Number and types of passive acoustic sources used in exercise
 - (F) Total hours of passive acoustic search time
 - (G) Number and types of vessels, aircraft, etc., participating in exercise
 - (H) Wave height in feet (high, low and average during exercise)
 - (I) Narrative description of sensors and platforms utilized for marine mammal detection and timeline illustrating how marine mammal detection was conducted
 - (ii) *Individual marine mammal observation (by Navy lookouts) information (gathered for each marine mammal sighting)*
 - (A) Location of sighting
 - (B) Species (if not possible, indicate whale, dolphin or pinniped)
 - (C) Number of individuals
 - (D) Whether calves were observed
 - (E) Initial detection sensor
 - (F) Length of time observers maintained visual contact with marine mammal
 - (G) Wave height
 - (H) Visibility
 - (I) Whether sighting was before, during, or after detonations/exercise, and how many minutes before or after
 - (J) 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 (91 m for SINKEX in SOCAL); 2) the required exclusion zone (1 nm for SINKEX in SOCAL); (3) the required observation distance (if different than the exclusion zone

(2 nm for SINKEX in SOCAL); and, (4) greater than the required observed distance. For example, in this case, the observer would indicate if < 91 m, from 91 m – 1 nm, from 1 nm – 2 nm, and > 2 nm.

- (K) Observed behavior – Watchstanders will report, in plain language and without trying to categorize in any way, the observed behavior of the animal(s) (such as animal closing to bow ride, paralleling course/speed, floating on surface and not swimming etc.), including speed and direction.
- (L) Resulting mitigation implementation – Indicate whether explosive detonations were delayed, ceased, modified, or not modified due to marine mammal presence and for how long.
- (M) If observation occurs while explosives are detonating in the water, indicate munition type in use at time of marine mammal detection.

(4) IEER Summary. This section shall include an annual summary of the following IEER information:

- (i) Total number of IEER events conducted in SOCAL
- (ii) Total expended/detonated rounds (buoys)
- (iii) Total number of self-scuttled IEER rounds

(5) Explosives Summary - 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.

- (i) Total annual number of each type of explosive exercises (of those identified as part of the "specified activity" in this final rule) conducted in SOCAL
- (ii) Total annual expended/detonated rounds (missiles, bombs, etc.) for each explosive type

3. Sonar Exercise Notification - The Navy shall submit to the NMFS Office of Protected Resources (specific contact information to be provided in LOA) either an electronic (preferably) or verbal report within fifteen calendar days after the completion of any major exercise (COMPTUEX, JTFEX, etc) indicating:

- (1) Location of the exercise
- (2) Beginning and end dates of the exercise
- (3) Type of exercise (e.g., COMPTUEX, JTFEX, etc.)

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

The following conservation recommendations would provide information for future consultations involving the issuance of marine mammal permits that may affect endangered whales as well as reduce harassment related to research activities:

1. *Cumulative Impact Analysis.* The U.S. Navy should work with NMFS Endangered Species Division and other relevant stakeholders (the Marine Mammal Commission, International Whaling Commission, and the marine mammal research community) to develop a method for assessing the cumulative impacts of anthropogenic noise on cetaceans, pinnipeds, sea turtles, and other marine animals. This includes the cumulative impacts on the distribution, abundance, and the physiological, behavioral and social ecology of these species.

In order to keep NMFS Endangered Species Division informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, the Permits, Conservation and Education Division of the Office of Protected Resources should notify the Endangered Species Division of any conservation recommendations they implement in their final action.

REINITIATION NOTICE

This concludes formal consultation on the U.S. Navy's proposal to undertake training activities in the Southern California Range Complex over the twelve-month period beginning in January 2010 and the National Marine Fisheries Service's Permits, Education, and Conservation Division's proposal to issue a Letter of Authorization for "take" of marine mammals in association with the U.S. Navy's activities. As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, section 7 consultation must be reinitiated immediately.

- Johnson, C. 2010. Supporting material in response to NMFS OPR ESA questions for the SOCAL Range Complex ITS. U.S. Pacific Fleet Environmental, San Diego, California.
- Miller, A. C., and S. E. Lawrenz-Miller. 1993. Long-term trends in black abalone, *Haliotis cracherodii* Leach 1814, populations along the Palos Verdes Peninsula, California. *Journal of Shellfish Research* 12:195-200.
- Morris, R. H., D. P. Abbott, and E. C. Haderlie. 1980. Intertidal invertebrates of California. 1980. Stanford University Press, Stanford, California.
- Richards, D. V., and G. E. Davis. 1993. Early warnings of modern population collapse in black abalone *Haliotis cracherodii*, Leach, 1814 at the California Channel Islands. *Journal of Shellfish Research* 12(2):189-194.

- USN (United States Navy). 2008a. Final Marine Biological Assessment for the Southern California Range Complex. Naval Facilities Engineering Command Southwest. San Diego, California.
- USN (United States Navy). 2008b. Southern California Range Complex Environmental Impact State/Overseas Environmental Impact Statement. Naval Facilities Engineering Command Southwest. San Diego, California.
- VanBlaricom, G. R. 1993. Dynamics and distribution of black abalone populations at San Nicolas Island, California. Pages 323-334 in F. G. Hochberg, editor. Third California Islands Symposium: recent advances in research on the California Islands. Santa Barbara Museum of Natural History, Santa Barbara, CA.