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

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DEPARTMENT OF COMMERCE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NATIONAL MARINE FISHERIES SERVICE

Letter of Authorization

The Commander, Naval Sea Systems Command Attn: Code SEA 04R, 1333 Isaac Hull Avenue, SE Washington Navy Yard, DC 20376, and persons operating under his or her authority (*i.e.*, Navy), are authorized to take marine mammals incidental to Navy testing activities conducted in the U.S. Navy's Hawaii-Southern California Training and Testing (HSTT) Study Area, subject to the provisions of the Marine Mammal Protection Act (16 U.S.C. 1361 *et seq.*; MMPA); applicable regulations found at 50 CFR Part 218, Subpart H ("the regulations"); and the following conditions:

1. This Authorization is valid for the period December 21, 2018, through December 20, 2023.

2. This Authorization is valid only for the unintentional taking of the species and stocks of marine mammals and methods of take identified in Condition 5 of this Authorization incidental to the testing activities specified in Condition 4 of this Authorization and occurring within the HSTT Study Area, from the mean high tide line of the Pacific Ocean in Southern California west to Hawaii and the International Date Line. The HSTT Study Area includes the at-sea areas of three existing range complexes (the Hawaii Range Complex, the SOCAL Range Complex, and the Silver Strand Training Complex), and overlaps a portion of the Point Mugu Sea Range. Also included in the HSTT Study Area are Navy pierside locations in Hawaii and Southern California, Pearl Harbor, San Diego Bay, and the transit corridor[1] on the high seas where sonar training and testing may occur (see Figures 1 and 2 attached, from the 2018 HSTT FEIS/OEIS and available at *www.hstteis.com*).

3. This Authorization is valid only if the Holder of the Authorization or any person(s) operating under his or her authority implements the mitigation, monitoring, and reporting required pursuant to 50 CFR §§ 218.74 and 218.75 and implements the Terms and Conditions of this Authorization.

[1] Vessel transit corridors are the routes typically used by Navy assets to traverse from one area to another. The route depicted in Figure 1-1 of the Navy's rulemaking/LOA application is the shortest route between Hawaii and Southern California, making it the quickest and most fuel efficient. The depicted vessel transit corridor is notional and may not represent the actual routes used by ships and submarines transiting from Southern California to Hawaii and back. Actual routes navigated are based on a number of factors including, but not limited to, weather, training, and operational requirements.

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4. This Authorization is valid for the testing activities identified below that include sonar and other transducers, explosives, air guns, pile driving/removal activities, and vessel use in the HSTT Study Area:

   (a) Naval Air Systems Command Testing Activities.
   (b) Naval Sea Systems Command Testing Activities.
   (c) Office of Naval Research Testing Activities.

5. The incidental take of marine mammals under the activities identified in Condition 4 and 50 CFR § 218.70(c) of the regulations is limited to the species and stocks listed in this condition (see below) by the indicated method of take and the indicated number of takes (Tables 1 through 3).

   (a) Non-lethal incidental take from testing activities is limited to the species and stocks and the indicated method and number of takes shown in Table 1.

Table 1. Species and Stock-Specific Non-lethal Take from All Testing Activities.

Species	*Stock*	*5-Year Total*	
		Level B Harassment	*Level A Harassment*
Suborder Mysticeti (baleen whales)			
Family Balaenopteridae (rorquals)			
Blue whale	Central North Pacific	65	0
	Eastern North Pacific	4,005	0
Bryde's whale	Eastern Tropical Pacific	69	0
	Hawaii	194	0
Fin whale	CA/OR/WA	4,695	3
	Hawaii	74	0
Humpback whale	CA/OR/WA	3,508	0
	Central North Pacific	16,777	11
Minke whale	CA/OR/WA	1,309	0
	Hawaii	6,918	4
Sei whale	Eastern North Pacific	124	0
	Hawaii	229	0
Family Eschrichtiidae			
Gray whale	Eastern North Pacific	9,277	7
	Western North Pacific	11	0
Suborder Odontoceti (toothed whales)			
Family Physeteridae (sperm whale)			
Sperm whale	CA/OR/WA	5,259	0
	Hawaii	3,731	0
Family Kogiidae (sperm whales)			

Dwarf sperm whale	Hawaii	30,607	140
Pygmy sperm whale	Hawaii	12,270	60
Kogia whales	CA/OR/WA	14,643	67
Family Ziphiidae (beaked whales)			
Baird's beaked whale	CA/OR/WA	3,418	0
Blainville's beaked whale	Hawaii	8,117	0
Cuvier's beaked whale	CA/OR/WA	21,379	20
	Hawaii	2,675	0
Longman's beaked whale	Hawaii	29,746	0
Mesoplodon spp.	CA/OR/WA	11,512	11
Family Delphinidae (dolphins)			
Bottlenose dolphin	California Coastal	7,968	0
	CA/OR/WA Offshore	112,410	4
	Hawaii Pelagic	6,013	0
	Kauai & Niihau	2,161	0
	Oahu	2,294	0
	4-Island	778	0
	Hawaii Island	186	0
False killer whale	Hawaii Pelagic	1,622	0
	Main Hawaiian Islands Insular	892	0
	Northwestern Hawaiian Islands	594	0
Fraser's dolphin	Hawaii	60,345	6
Killer whale	Eastern North Pacific Offshore	166	0
	Eastern North Pacific Transient/West Coast Transient	309	0
	Hawaii	198	0
Long-beaked common dolphin	California	568,020	24
Melon-headed whale	Hawaiian Islands	5,423	0
	Kohala Resident	795	0
Northern right whale dolphin	CA/OR/WA	198,917	15
Pacific white-sided dolphin	CA/OR/WA	151,000	8
Pantropical spotted dolphin	Hawaii Island	6,791	0
	Hawaii Pelagic	17,615	0
	Oahu	957	0

	4-Island	1,734	0
Pygmy killer whale	Hawaii	13,008	0
	Tropical	1,351	0
Risso's dolphin	CA/OR/WA	240,646	16
	Hawaii	13,495	0
Rough-toothed dolphin	Hawaii	10,532	0
	NSD[1]	0	0
Short-beaked common dolphin	CA/OR/WA	2,673,431	216
Short-finned pilot whale	CA/OR/WA	4,440	0
	Hawaii	20,757	0
Spinner dolphin	Hawaii Island	993	0
	Hawaii Pelagic	6,770	0
	Kauai & Niihau	6,530	0
	Oahu & 4-Island	1,389	0
Striped dolphin	CA/OR/WA	262,973	11
	Hawaiian	11,546	0
Family Phocoenidae (porpoises)			
Dall's porpoise	CA/OR/WA	81,611	338
Suborder Pinnipedia			
Family Otariidae (eared seals)			
California sea lion	U.S.	237,870	23
Guadalupe fur seal	Mexico	4,357	0
Northern fur seal	California	26,168	4
Family Phocidae (true seals)			
Harbor seal	California	11,258	7
Hawaiian monk seal*	Hawaii	254	0
Northern elephant seal	California	107,343	131

Note: CA/OR/WA – California/Oregon/Washington

(b) Incidental take by serious injury or mortality from explosives during testing activities is limited to the species and stocks and the number of takes shown in Table 2.

Table 2. Species Specific Lethal Take from Explosives during Testing Activities.

Species (Stock)	5-Year Take by Serious Injury or Mortality
Short-beaked common dolphin (CA/OR/WA stock)	3

(c) Incidental take by serious injury or mortality from vessel strikes is limited to a total of three large whales during training and testing activities combined from the species listed in Table 3. Of the three total takes, no more than one or two whales can be taken by vessel strike from each species (as indicated) listed in Table 3.

Table 3. Species and Stock-Specific Serious Injury or Mortality Authorized Take by Vessel Strike for Training and Testing Activities Combined.

Species (Stock)	**5-Year Take by Serious Injury or Mortality (no more than 3 whales total over five years and no more than 1 or 2 (as indicated) from any species/stock below).**
Fin whale (CA/OR/WA stock)	2
Gray whale (Eastern North Pacific stock)	2
Humpback whale (CA/OR/WA stock, Mexico DPS)	1
Humpback whale (Central North Pacific stock)	2
Sperm whale (Hawaii stock)	1
Blue whale (Eastern North Pacific stock)	1

6. Mitigation. The Holder of this Authorization, and any persons operating under his or her authority, must implement the following mitigation measures when conducting the activities identified in Condition 4 of this Authorization.

(a) *Procedural mitigation.* Procedural mitigation is mitigation that the Navy must implement whenever and wherever an applicable training or testing activity takes place within the HSTT Study Area for each applicable activity category or stressor category and includes acoustic stressors (*i.e.*, active sonar, air guns, pile driving, weapons firing noise), explosive stressors (*i.e.*, sonobuoys, torpedoes, medium-caliber and large-caliber projectiles, missiles and rockets, bombs, sinking exercises, mines, anti-swimmer grenades, and mat weave and obstacle loading), and physical disturbance and strike stressors (*i.e.*, vessel movement; towed in-water devices; small-, medium-, and large-caliber non-explosive practice munitions; non-explosive missiles and rockets; and non-explosive bombs and mine shapes).

(1) *Environmental awareness and education.* Appropriate Navy personnel (including civilian personnel) involved in mitigation and training or testing activity reporting under the

specified activities must complete one or more modules of the U.S Navy Afloat Environmental Compliance Training Series, as identified in their career path training plan. Modules include: Introduction to the U.S. Navy Afloat Environmental Compliance Training Series, Marine Species Awareness Training; U.S. Navy Protective Measures Assessment Protocol; and U.S. Navy Sonar Positional Reporting System and Marine Mammal Incident Reporting.

(2) *Active sonar*. Active sonar includes low-frequency active sonar, mid-frequency active sonar, and high-frequency active sonar. For vessel-based activities, mitigation applies only to sources that are positively controlled and deployed from manned surface vessels (*e.g.*, sonar sources towed from manned surface platforms). For aircraft-based activities, mitigation applies only to sources that are positively controlled and deployed from manned aircraft that do not operate at high altitudes (*e.g.*, rotary-wing aircraft). Mitigation does not apply to active sonar sources deployed from unmanned aircraft or aircraft operating at high altitudes (*e.g.*, maritime patrol aircraft).

(i) *Number of Lookouts and observation platform*--(A) *Hull-mounted sources*. One Lookout for platforms with space or manning restrictions while underway (at the forward part of a small boat or ship) and platforms using active sonar while moored or at anchor (including pierside); and two Lookouts for platforms without space or manning restrictions while underway (at the forward part of the ship).

(B) *Sources that are not hull-mounted sources*. One Lookout on the ship or aircraft conducting the activity.

(ii) *Mitigation zone and requirements.* During the activity, at 1,000 yards (yd) Navy personnel must power down 6 decibels (dB), at 500 yd Navy personnel must power down an additional 4 dB (for a total of 10 dB), and at 200 yd Navy personnel must shut down for low-frequency active sonar ≥200 dB and hull-mounted mid-frequency active sonar; or at 200 yd Navy personnel must shut down for low-frequency active sonar <200 dB, mid-frequency active sonar sources that are not hull-mounted, and high-frequency active sonar.

(A) Prior to the start of the activity (*e.g.,* when maneuvering on station), Navy personnel must observe the mitigation zone for floating vegetation; if floating vegetation is observed, Navy personnel must relocate or delay the start of active sonar transmission until the mitigation zone is clear. Navy personnel must also observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must relocate or delay the start of active sonar transmission.

(B) During the activity for low-frequency active sonar at or above 200 dB and hull-mounted mid-frequency active sonar, Navy personnel must observe the mitigation zone for marine mammals and power down active sonar transmission by 6 dB if marine mammals are observed within 1,000 yd of the sonar source; power down by an additional 4 dB (for a total of 10 dB total) if marine mammals are observed within 500 yd of the sonar source; and cease transmission if marine mammals are observed within 200 yd of the sonar source.

(C) During the activity for low-frequency active sonar below 200 dB, mid-frequency active sonar sources that are not hull mounted, and high-frequency active sonar, Navy personnel must observe the mitigation zone for marine mammals and cease active sonar transmission if marine mammals are observed within 200 yd of the sonar source.

(D) Commencement/recommencement conditions after a marine mammal sighting before or during the activity. Navy personnel must allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the

activity (by not recommencing or powering up active sonar transmission) until one of the following conditions has been met: the animal is observed exiting the mitigation zone; the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the sonar source; the mitigation zone has been clear from any additional sightings for 10 minutes (min) for aircraft-deployed sonar sources or 30 min for vessel-deployed sonar sources; for mobile activities, the active sonar source has transited a distance equal to double that of the mitigation zone size beyond the location of the last sighting; or for activities using hull-mounted sonar where a dolphin(s) is observed in the mitigation zone, the Lookout concludes that the dolphin(s) are deliberately closing in on the ship to ride the ship's bow wave, and are therefore out of the main transmission axis of the sonar (and there are no other marine mammal sightings within the mitigation zone).

(3) *Air guns*--(i) *Number of Lookouts and observation platform*. One Lookout positioned on a ship or pierside.

(ii) *Mitigation zone and requirements*. 150 yd around the air gun.

(A) Prior to the initial start of the activity (*e.g.*, when maneuvering on station), Navy personnel must observe the mitigation zone for floating vegetation; if floating vegetation is observed, Navy personnel must relocate or delay the start until the mitigation zone is clear. Navy personnel must also observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must relocate or delay the start of air gun use.

(B) During the activity, Navy personnel must observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must cease air gun use.

(C) Commencement/recommencement conditions after a marine mammal sighting before or during the activity. Navy personnel must allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing air gun use) until one of the following conditions has been met: the animal is observed exiting the mitigation zone; the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the air gun; the mitigation zone has been clear from any additional sightings for 30 min; or for mobile activities, the air gun has transited a distance equal to double that of the mitigation zone size beyond the location of the last sighting.

(4) *Pile driving*. Pile driving and pile extraction sound during Elevated Causeway System training.

(i) *Number of Lookouts and observation platform*. One Lookout must be positioned on the shore, the elevated causeway, or a small boat.

(ii) *Mitigation zone and requirements*. 100 yd around the pile driver.

(A) Prior to the initial start of the activity (for 30 min), Navy personnel must observe the mitigation zone for floating vegetation; if floating vegetation is observed, Navy personnel must delay the start until the mitigation zone is clear. Navy personnel also must observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must delay the start of pile driving or vibratory pile extraction.

(B) During the activity, Navy personnel must observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must cease impact pile driving or vibratory pile extraction.

(C) Commencement/recommencement conditions after a marine mammal sighting before or during the activity. The Navy personnel must allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing pile driving or pile extraction) until one of the following conditions has been met: the animal is observed exiting the mitigation zone; the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the pile driving location; or the mitigation zone has been clear from any additional sightings for 30 min.

(5) *Weapons firing noise.* Weapons firing noise associated with large-caliber gunnery activities.

(i) *Number of Lookouts and observation platform.* One Lookout must be positioned on the ship conducting the firing. Depending on the activity, the Lookout could be the same as the one provided for under "Explosive medium-caliber and large-caliber projectiles" or under "Small-, medium-, and large-caliber non-explosive practice munitions" in paragraphs (a)(8)(i) and (a)(18)(i) of this section.

(ii) *Mitigation zone and requirements.* Thirty degrees on either side of the firing line out to 70 yd from the muzzle of the weapon being fired.

(A) Prior to the start of the activity, Navy personnel must observe the mitigation zone for floating vegetation; if floating vegetation is observed, Navy personnel must relocate or delay the start of weapons firing until the mitigation zone is clear. Navy personnel must also observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must relocate or delay the start of weapons firing.

(B) During the activity, Navy personnel must observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must cease weapons firing.

(C) Commencement/recommencement conditions after a marine mammal sighting before or during the activity. Navy personnel must allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing weapons firing) until one of the following conditions has been met: the animal is observed exiting the mitigation zone; the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the firing ship; the mitigation zone has been clear from any additional sightings for 30 min; or for mobile activities, the firing ship has transited a distance equal to double that of the mitigation zone size beyond the location of the last sighting.

(6) *Explosive sonobuoys*--(i) *Number of Lookouts and observation platform.* One Lookout must be positioned in an aircraft or on small boat. If additional platforms are participating in the activity, Navy personnel positioned in those assets (*e.g.*, safety observers, evaluators) must support observing the mitigation zone for applicable biological resources while performing their regular duties.

(ii) *Mitigation zone and requirements.* 600 yd around an explosive sonobuoy.

(A) Prior to the initial start of the activity (*e.g.*, during deployment of a sonobuoy field, which typically lasts 20–30 min), Navy personnel must observe the mitigation zone for floating vegetation; if floating vegetation is observed, Navy personnel must relocate or delay the start of sonobuoy or source/receiver pair detonations until the mitigation zone is clear. Navy personnel must conduct passive acoustic monitoring for marine mammals and use information from

detections to assist visual observations. Navy personnel also must visually observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must relocate or delay the start of sonobuoy or source/receiver pair detonations.

(B) During the activity, Navy personnel must observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must cease sonobuoy or source/receiver pair detonations.

(C) Commencement/recommencement conditions after a marine mammal sighting before or during the activity. Navy personnel must allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing detonations) until one of the following conditions has been met: the animal is observed exiting the mitigation zone; the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the sonobuoy; or the mitigation zone has been clear from any additional sightings for 10 min when the activity involves aircraft that have fuel constraints (*e.g.*, helicopter), or 30 min when the activity involves aircraft that are not typically fuel constrained.

(D) After completion of the activity (*e.g.*, prior to maneuvering off station), when practical (*e.g.*, when platforms are not constrained by fuel restrictions or mission-essential follow-on commitments), Navy personnel must observe for marine mammals in the vicinity of where detonations occurred; if any injured or dead marine mammals are observed, Navy personnel must follow established incident reporting procedures. If additional platforms are supporting this activity (*e.g.*, providing range clearance), these Navy assets must assist in the visual observation of the area where detonations occurred.

(7) *Explosive torpedoes*--(i) *Number of Lookouts and observation platform.* One Lookout positioned in an aircraft. If additional platforms are participating in the activity, Navy personnel positioned in those assets *(e.g.*, safety observers, evaluators) must support observing the mitigation zone for applicable biological resources while performing their regular duties.

(ii) *Mitigation zone and requirements.* 2,100 yd around the intended impact location.

(A) Prior to the initial start of the activity (*e.g.*, during deployment of the target), Navy personnel must observe the mitigation zone for floating vegetation; if floating vegetation is observed, Navy personnel must relocate or delay the start of firing until the mitigation zone is clear. Navy personnel must conduct passive acoustic monitoring for marine mammals and use the information from detections to assist visual observations. Navy personnel must visually observe the mitigation zone for marine mammals and jellyfish aggregations; if marine mammals or jellyfish aggregations are observed, Navy personnel must relocate or delay the start of firing.

(B) During the activity, Navy personnel must observe for marine mammals and jellyfish aggregations; if marine mammals or jellyfish aggregation are observed, Navy personnel must cease firing.

(C) Commencement/recommencement conditions after a marine mammal sighting before or during the activity, Navy personnel must allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing firing) until one of the following conditions has been met: the animal is observed exiting the mitigation zone; the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the intended impact location; or the mitigation zone has been clear from any additional sightings for

10 min when the activity involves aircraft that have fuel constraints (*e.g.*, helicopter), or 30 min when the activity involves aircraft that are not typically fuel constrained.

(D) After completion of the activity (*e.g.*, prior to maneuvering off station), Navy personnel must when practical *(e.g.*, when platforms are not constrained by fuel restrictions or mission-essential follow-on commitments), observe for marine mammals in the vicinity of where detonations occurred; if any injured or dead marine mammals are observed, Navy personnel must follow established incident reporting procedures. If additional platforms are supporting this activity (*e.g.*, providing range clearance), these Navy assets must assist in the visual observation of the area where detonations occurred.

(8) *Explosive medium-caliber and large-caliber projectiles.* Gunnery activities using explosive medium-caliber and large-caliber projectiles. Mitigation applies to activities using a surface target.

(i) *Number of Lookouts and observation platform.* One Lookout must be on the vessel or aircraft conducting the activity. For activities using explosive large-caliber projectiles, depending on the activity, the Lookout could be the same as the one described in "Weapons firing noise" in paragraph (a)(5)(i) of this section. If additional platforms are participating in the activity, Navy personnel positioned in those assets (*e.g.*, safety observers, evaluators) must support observing the mitigation zone for applicable biological resources while performing their regular duties.

(ii) *Mitigation zone and requirements.* (A) 200 yd around the intended impact location for air-to-surface activities using explosive medium-caliber projectiles.

(B) 600 yd around the intended impact location for surface-to-surface activities using explosive medium-caliber projectiles.

(C) 1,000 yd around the intended impact location for surface-to-surface activities using explosive large-caliber projectiles.

(D) Prior to the start of the activity (*e.g.*, when maneuvering on station), Navy personnel must observe the mitigation zone for floating vegetation; if floating vegetation is observed, Navy personnel must relocate or delay the start of firing until the mitigation zone is clear. Navy personnel must observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must relocate or delay the start of firing.

(E) During the activity, Navy personnel must observe for marine mammals; if marine mammals are observed, Navy personnel must cease firing.

(F) Commencement/recommencement conditions after a marine mammal sighting before or during the activity, Navy personnel must allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing firing) until one of the following conditions has been met: the animal is observed exiting the mitigation zone; the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the intended impact location; the mitigation zone has been clear from any additional sightings for 10 min for aircraft-based firing or 30 min for vessel-based firing; or for activities using mobile targets, the intended impact location has transited a distance equal to double that of the mitigation zone size beyond the location of the last sighting.

(G) After completion of the activity (*e.g.*, prior to maneuvering off station), Navy personnel must, when practical (*e.g.*, when platforms are not constrained by fuel restrictions or mission-essential follow-on commitments), observe for marine mammals in the vicinity of where detonations occurred; if any injured or dead marine mammals are observed, Navy personnel must

follow established incident reporting procedures. If additional platforms are supporting this activity (*e.g.*, providing range clearance), these Navy assets must assist in the visual observation of the area where detonations occurred.

(9) *Explosive missiles and rockets.* Aircraft-deployed explosive missiles and rockets. Mitigation applies to activities using a surface target.

(i) *Number of Lookouts and observation platform.* One Lookout must be positioned in an aircraft. If additional platforms are participating in the activity, Navy personnel positioned in those assets (*e.g.*, safety observers, evaluators) must support observing the mitigation zone for applicable biological resources while performing their regular duties.

(ii) *Mitigation zone and requirements.* (A) 900 yd around the intended impact location for missiles or rockets with 0.6–20 lb net explosive weight.

(B) 2,000 yd around the intended impact location for missiles with 21-500 lb net explosive weight.

(C) Prior to the initial start of the activity (*e.g.*, during a fly-over of the mitigation zone), Navy personnel must observe the mitigation zone for floating vegetation; if floating vegetation is observed, Navy personnel must relocate or delay the start of firing until the mitigation zone is clear. Navy personnel must observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must relocate or delay the start of firing.

(D) During the activity, Navy personnel must observe for marine mammals; if marine mammals are observed, Navy personnel must cease firing.

(E) Commencement/recommencement conditions after a marine mammal sighting before or during the activity. Navy personnel must allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing firing) until one of the following conditions has been met: the animal is observed exiting the mitigation zone; the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the intended impact location; or the mitigation zone has been clear from any additional sightings for 10 min when the activity involves aircraft that have fuel constraints (*e.g.*, helicopter), or 30 min when the activity involves aircraft that are not typically fuel constrained.

(F) After completion of the activity (*e.g.*, prior to maneuvering off station), Navy personnel must, when practical (*e.g.*, when platforms are not constrained by fuel restrictions or mission-essential follow-on commitments), observe for marine mammals in the vicinity of where detonations occurred; if any injured or dead marine mammals are observed, Navy personnel must follow established incident reporting procedures. If additional platforms are supporting this activity (*e.g.*, providing range clearance), these Navy assets will assist in the visual observation of the area where detonations occurred.

(10) *Explosive bombs*--(i) *Number of Lookouts and observation platform.* One Lookout must be positioned in an aircraft conducting the activity. If additional platforms are participating in the activity, Navy personnel positioned in those assets (*e.g.*, safety observers, evaluators) must support observing the mitigation zone for applicable biological resources while performing their regular duties.

(ii) *Mitigation zone and requirements.* 2,500 yd around the intended target.

(A) Prior to the initial start of the activity (*e.g.*, when arriving on station), Navy personnel must observe the mitigation zone for floating vegetation; if floating vegetation is

observed, Navy personnel must relocate or delay the start of bomb deployment until the mitigation zone is clear. Navy personnel must observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must relocate or delay the start of bomb deployment.

(B) During the activity (*e.g.*, during target approach), Navy personnel must observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must cease bomb deployment.

(C) Commencement/recommencement conditions after a marine mammal sighting before or during the activity. Navy personnel must allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing bomb deployment) until one of the following conditions has been met: the animal is observed exiting the mitigation zone; the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the intended target; the mitigation zone has been clear from any additional sightings for 10 min; or for activities using mobile targets, the intended target has transited a distance equal to double that of the mitigation zone size beyond the location of the last sighting.

(D) After completion of the activity (*e.g.*, prior to maneuvering off station), Navy personnel must, when practical (*e.g.*, when platforms are not constrained by fuel restrictions or mission-essential follow-on commitments), observe for marine mammals in the vicinity of where detonations occurred; if any injured or dead marine mammals are observed, Navy personnel must follow established incident reporting procedures. If additional platforms are supporting this activity (*e.g.*, providing range clearance), these Navy assets must assist in the visual observation of the area where detonations occurred.

(11) *Sinking exercises*--(i) *Number of Lookouts and observation platform.* Two Lookouts (one must be positioned in an aircraft and one must be positioned on a vessel). If additional platforms are participating in the activity, Navy personnel positioned in those assets (*e.g.*, safety observers, evaluators) must support observing the mitigation zone for applicable biological resources while performing their regular duties.

(ii) *Mitigation zone and requirements.* 2.5 nautical miles (nmi) around the target ship hulk.

(A) Prior to the initial start of the activity (90 min prior to the first firing), Navy personnel must conduct aerial observations of the mitigation zone for floating vegetation; if floating vegetation is observed, Navy personnel must delay the start of firing until the mitigation zone is clear. Navy personnel also must conduct aerial observations of the mitigation zone for marine mammals and jellyfish aggregations; if marine mammals or jellyfish aggregations are observed, Navy personnel must delay the start of firing.

(B) During the activity, Navy personnel must conduct passive acoustic monitoring for marine mammals and use the information from detections to assist visual observations. Navy personnel must visually observe the mitigation zone for marine mammals from the vessel; if marine mammals are observed, Navy personnel must cease firing. Immediately after any planned or unplanned breaks in weapons firing of longer than two hours, Navy personnel must observe the mitigation zone for marine mammals from the aircraft and vessel; if marine mammals are observed, Navy personnel must delay recommencement of firing.

(C) Commencement/recommencement conditions after a marine mammal sighting before or during the activity. Navy personnel must allow a sighted marine mammal to leave the

mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing firing) until one of the following conditions has been met: the animal is observed exiting the mitigation zone; the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the target ship hulk; or the mitigation zone has been clear from any additional sightings for 30 min.

(D) After completion of the activity (for two hours after sinking the vessel or until sunset, whichever comes first), Navy personnel must observe for marine mammals in the vicinity of where detonations occurred; if any injured or dead marine mammals are observed, Navy personnel must follow established incident reporting procedures. If additional platforms are supporting this activity (*e.g.*, providing range clearance), these Navy assets will assist in the visual observation of the area where detonations occurred.

(12) *Explosive mine countermeasure and neutralization activities*--(i) *Number of Lookouts and observation platform.* (A) One Lookout must be positioned on a vessel or in an aircraft when implementing the smaller mitigation zone.

(B) Two Lookouts (one must be positioned in an aircraft and one must be on a small boat) when implementing the larger mitigation zone.

(C) If additional platforms are participating in the activity, Navy personnel positioned in those assets (*e.g.*, safety observers, evaluators) must support observing the mitigation zone for applicable biological resources while performing their regular duties.

(ii) *Mitigation zone and requirements.* (A) 600 yd around the detonation site for activities using 0.1–5 lb net explosive weight.

(B) 2,100 yd around the detonation site for activities using 6–650 lb net explosive weight (including high explosive target mines).

(C) Prior to the initial start of the activity (*e.g.*, when maneuvering on station; typically, 10 min when the activity involves aircraft that have fuel constraints (*e.g.*, helicopter), or 30 min when the activity involves aircraft that are not typically fuel constrained), Navy personnel must observe the mitigation zone for floating vegetation; if floating vegetation is observed, Navy personnel must relocate or delay the start of detonations until the mitigation zone is clear. Navy personnel must observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must relocate or delay the start of detonations.

(D) During the activity, Navy personnel must observe the mitigation zone for marine mammals, concentrations of seabirds, and individual foraging seabirds; if marine mammals, concentrations of seabirds, and individual foraging seabirds are observed, Navy personnel must cease detonations.

(E) Commencement/recommencement conditions after a marine mammal sighting before or during the activity or a sighting of seabird concentrations or individual foraging seabirds during the activity. Navy personnel must allow a sighted animal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing detonations) until one of the following conditions has been met: the animal is observed exiting the mitigation zone; the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to detonation site; or the mitigation zone has been clear from any additional sightings for 10 min when the activity involves aircraft that have fuel constraints (*e.g.*, helicopter), or 30 min when the activity involves aircraft that are not typically fuel constrained.

(F) After completion of the activity (typically 10 min when the activity involves aircraft that have fuel constraints, or 30 min when the activity involves aircraft that are not typically fuel constrained), Navy personnel must observe for marine mammals in the vicinity of where detonations occurred; if any injured or dead marine mammals are observed, Navy personnel must follow established incident reporting procedures. If additional platforms are supporting this activity (*e.g.*, providing range clearance), these Navy assets must assist in the visual observation of the area where detonations occurred.

(13) *Explosive mine neutralization activities involving Navy divers*--(i) *Number of Lookouts and observation platform.* (A) Two Lookouts (two small boats with one Lookout each, or one Lookout must be on a small boat and one must be in a rotary-wing aircraft) when implementing the smaller mitigation zone.

(B) Four Lookouts (two small boats with two Lookouts each), and a pilot or member of an aircrew must serve as an additional Lookout if aircraft are used during the activity, when implementing the larger mitigation zone.

(C) All divers placing the charges on mines will support the Lookouts while performing their regular duties and will report applicable sightings to their supporting small boat or Range Safety Officer.

(D) If additional platforms are participating in the activity, Navy personnel positioned in those assets (*e.g.*, safety observers, evaluators) must support observing the mitigation zone for applicable biological resources while performing their regular duties.

(ii) *Mitigation zone and requirements.* (A) 500 yd around the detonation site during activities under positive control using 0.1–20 lb net explosive weight.

(B) 1,000 yd around the detonation site during all activities using time-delay fuses (0.1–29 lb net explosive weight) and during activities under positive control using 21–60 lb net explosive weight charges.

(C) Prior to the initial start of the activity (*e.g.*, when maneuvering on station for activities under positive control; 30 min for activities using time-delay firing devices), Navy personnel must observe the mitigation zone for floating vegetation; if floating vegetation is observed, Navy personnel must relocate or delay the start of detonations or fuse initiation until the mitigation zone is clear. Navy personnel also must observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must relocate or delay the start of detonations or fuse initiation.

(D) During the activity, Navy personnel must observe the mitigation zone for marine mammals, concentrations of seabirds, and individual foraging seabirds (in the water and not on shore); if marine mammals, concentrations of seabirds, and individual foraging seabirds are observed, Navy personnel must cease detonations or fuse initiation. To the maximum extent practicable depending on mission requirements, safety, and environmental conditions, Navy personnel must position boats near the mid-point of the mitigation zone radius (but outside of the detonation plume and human safety zone), must position themselves on opposite sides of the detonation location (when two boats are used), and must travel in a circular pattern around the detonation location with one Lookout observing inward toward the detonation site and the other observing outward toward the perimeter of the mitigation zone. If used, Navy aircraft must travel in a circular pattern around the detonation location to the maximum extent practicable. Navy personnel must not set time-delay firing devices (0.1–29 lb. net explosive weight) to exceed 10 min.

(E) During activities conducted in shallow water, a shore-based Navy observer must survey the mitigation zone with binoculars for birds before and after each detonation. If training involves multiple detonations, the second (or third, etc.) detonation will occur either immediately after the preceding detonation (*i.e.*, within 10 seconds) or after 30 min to avoid potential impacts on birds foraging underwater.

(F) Commencement/recommencement conditions after a marine mammal sighting before or during the activity or a sighting of seabird concentrations or individual foraging seabirds during the activity. Navy personnel must allow a sighted animal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing detonations) until one of the following conditions has been met: the animal is observed exiting the mitigation zone; the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the detonation site; or the mitigation zone has been clear from any additional sightings for 10 min during activities under positive control with aircraft that have fuel constraints (*e.g.*, helicopter), or 30 min during activities under positive control with aircraft that are not typically fuel constrained and during activities using time-delay firing devices.

(G) After completion of an activity, Navy personnel must observe for marine mammals for 30 min. Navy personnel must observe for marine mammals in the vicinity of where detonations occurred; if any injured or dead marine mammals are observed, Navy personnel must follow established incident reporting procedures. If additional platforms are supporting this activity (*e.g.*, providing range clearance), these Navy assets must assist in the visual observation of the area where detonations occurred.

(14) *Maritime security operations – anti-swimmer grenades*--(i) *Number of Lookouts and observation platform.* One Lookout must be positioned on the small boat conducting the activity. If additional platforms are participating in the activity, Navy personnel positioned in those assets (*e.g.*, safety observers, evaluators) must support observing the mitigation zone for applicable biological resources while performing their regular duties.

(ii) *Mitigation zone and requirements.* 200 yd around the intended detonation location.

(A) Prior to the initial start of the activity (*e.g.*, when maneuvering on station), Navy personnel must observe the mitigation zone for floating vegetation; if floating vegetation is observed, Navy personnel must relocate or delay the start of detonations until the mitigation zone is clear. Navy personnel must observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must relocate or delay the start of detonations.

(B) During the activity, Navy personnel must observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must cease detonations.

(C) Commencement/recommencement conditions after a marine mammal sighting before or during the activity. Navy personnel must allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing detonations) until one of the following conditions has been met: the animal is observed exiting the mitigation zone; the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the intended detonation location; the mitigation zone has been clear from any additional sightings for 30 min; or the intended detonation location has transited a distance equal to double that of the mitigation zone size beyond the location of the last sighting.

(D) After completion of the activity (*e.g.*, prior to maneuvering off station), Navy personnel must, when practical (*e.g.*, when platforms are not constrained by fuel restrictions or mission-essential follow-on commitments), observe for marine mammals in the vicinity of where detonations occurred; if any injured or dead marine mammals are observed, Navy personnel must follow established incident reporting procedures. If additional platforms are supporting this activity (*e.g.*, providing range clearance), these Navy assets will assist in the visual observation of the area where detonations occurred.

(15) *Underwater demolition multiple charge – mat weave and obstacle loading exercises*--(i) *Number of Lookouts and observation platform.* Two Lookouts (one must be positioned on a small boat and one must be positioned on shore from an elevated platform). If additional platforms are participating in the activity, Navy personnel positioned in those assets (*e.g.*, safety observers, evaluators) must support observing the mitigation zone for applicable biological resources while performing their regular duties.

(ii) *Mitigation zone and requirements.* 700 yd around the intended detonation location.

(A) Prior to the initial start of the activity, or 30 min prior to the first detonation, the Lookout positioned on a small boat must observe the mitigation zone for floating vegetation and marine mammals; if floating vegetation or marine mammals are observed, Navy personnel must delay the start of detonations. For 10 min prior to the first detonation, the Lookout positioned on shore must use binoculars to observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must delay the start of detonations until the mitigation zone has been clear of any additional sightings for a minimum of 10 min.

(B) During the activity, Navy personnel must observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must cease detonations.

(C) Commencement/recommencement conditions after a marine mammal sighting before or during the activity. Navy personnel must allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing detonations) until one of the following conditions has been met: the animal is observed exiting the mitigation zone; the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the detonation location; or the mitigation zone has been clear from any additional sightings for 10 min (as determined by the Navy shore observer).

(D) After completion of the activity (for 30 min), the Lookout positioned on a small boat must observe for marine mammals in the vicinity of where detonations occurred; if any injured or dead marine mammals are observed, Navy personnel must follow established incident reporting procedures. If additional platforms are supporting this activity (*e.g.*, providing range clearance), these Navy assets must assist in the visual observation of the area where detonations occurred.

(16) *Vessel movement.* The mitigation will not be applied if: the vessel's safety is threatened; the vessel is restricted in its ability to maneuver (*e.g.*, during launching and recovery of aircraft or landing craft, during towing activities, when mooring); the vessel is operated autonomously; or when impracticable based on mission requirements (*e.g.*, during Amphibious Assault – Battalion Landing exercise).

(i) *Number of Lookouts and observation platform.* One Lookout must be on the vessel that is underway.

(ii) *Mitigation zone and requirements.* (A) 500 yd around whales.

(B) 200 yd around all other marine mammals (except bow-riding dolphins and pinnipeds hauled out on man-made navigational structures, port structures, and vessels).

(iii) *During the activity.* When underway Navy personnel must observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must maneuver to maintain distance.

(iv) *Incident reporting procedures.* Additionally, if a marine mammal vessel strike occurs, Navy personnel must follow the established incident reporting procedures.

(17) *Towed in-water devices.* Mitigation applies to devices that are towed from a manned surface platform or manned aircraft. The mitigation will not be applied if the safety of the towing platform or in-water device is threatened.

(i) *Number of Lookouts and observation platform.* One Lookout must be positioned on a manned towing platform.

(ii) *Mitigation zone and requirements.* 250 yd around marine mammals.

(iii) *During the activity.* During the activity (*i.e.*, when towing an in-water device), Navy personnel must observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must maneuver to maintain distance.

(18) *Small-, medium-, and large-caliber non-explosive practice munitions.* Mitigation applies to activities using a surface target.

(i) *Number of Lookouts and observation platform.* One Lookout must be positioned on the platform conducting the activity. Depending on the activity, the Lookout could be the same as the one described for "Weapons firing noise" in paragraph (a)(5)(i) of this section.

(ii) *Mitigation zone and requirements.* 200 yd around the intended impact location.

(A) Prior to the start of the activity (*e.g.*, when maneuvering on station), Navy personnel must observe the mitigation zone for floating vegetation; if floating vegetation is observed, Navy personnel must relocate or delay the start of firing until the mitigation zone is clear. Navy personnel must observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must relocate or delay the start of firing.

(B) During the activity, Navy personnel must observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must cease firing.

(C) Commencement/recommencement conditions after a marine mammal sighting before or during the activity. Navy personnel must allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing firing) until one of the following conditions has been met: the animal is observed exiting the mitigation zone; the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the intended impact location; the mitigation zone has been clear from any additional sightings for 10 min for aircraft-based firing or 30 min for vessel-based firing; or for activities using a mobile target, the intended impact location has transited a distance equal to double that of the mitigation zone size beyond the location of the last sighting.

(19) *Non-explosive missiles and rockets.* Aircraft-deployed non-explosive missiles and rockets. Mitigation applies to activities using a surface target.

(i) *Number of Lookouts and observation platform*. One Lookout must be positioned in an aircraft.

(ii) *Mitigation zone and requirements*. 900 yd around the intended impact location.

(A) Prior to the initial start of the activity (*e.g.*, during a fly-over of the mitigation zone), Navy personnel must observe the mitigation zone for floating vegetation; if floating vegetation is observed, Navy personnel must relocate or delay the start of firing until the mitigation zone is clear. Navy personnel must observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must relocate or delay the start of firing.

(B) During the activity, Navy personnel must observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must cease firing.

(C) Commencement/recommencement conditions after a marine mammal sighting prior to or during the activity. Navy personnel must allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing firing) until one of the following conditions has been met: the animal is observed exiting the mitigation zone; the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the intended impact location; or the mitigation zone has been clear from any additional sightings for 10 min when the activity involves aircraft that have fuel constraints (*e.g.*, helicopter), or 30 min when the activity involves aircraft that are not typically fuel constrained.

(20) *Non-explosive bombs and mine shapes*. Non-explosive bombs and non-explosive mine shapes during mine laying activities.

(i) *Number of Lookouts and observation platform*. One Lookout must be positioned in an aircraft.

(ii) *Mitigation zone and requirements*. 1,000 yd around the intended target.

(A) Prior to the initial start of the activity (*e.g.*, when arriving on station), Navy personnel must observe the mitigation zone for floating vegetation; if floating vegetation is observed, Navy personnel must relocate or delay the start of bomb deployment or mine laying until the mitigation zone is clear. Navy personnel also must observe the mitigation zone for marine mammals; if marine mammals are observed, Navy personnel must relocate or delay the start of bomb deployment or mine laying.

(B) During the activity (*e.g.*, during approach of the target or intended minefield location), Navy personnel must observe the mitigation zone for marine mammals and, if marine mammals are observed, Navy personnel must cease bomb deployment or mine laying.

(C) Commencement/recommencement conditions after a marine mammal sighting prior to or during the activity. Navy personnel must allow a sighted marine mammal to leave the mitigation zone prior to the initial start of the activity (by delaying the start) or during the activity (by not recommencing bomb deployment or mine laying) until one of the following conditions has been met: the animal is observed exiting the mitigation zone; the animal is thought to have exited the mitigation zone based on a determination of its course, speed, and movement relative to the intended target or minefield location; the mitigation zone has been clear from any additional sightings for 10 min; or for activities using mobile targets, the intended target has transited a distance equal to double that of the mitigation zone size beyond the location of the last sighting.

(b) *Mitigation areas.* In addition to procedural mitigation, Navy personnel must implement mitigation measures within mitigation areas to avoid or reduce potential impacts on marine mammals. See Figures 1 and 2 of the regulations for the location of each mitigation area.

(1) *Mitigation areas for marine mammals in the Hawaii Range Complex for sonar, explosives, and vessel strikes*--(i) *Mitigation area requirements*--(A) *Hawaii Island Mitigation Area (year-round).* (*1*) Except as provided in paragraph (b)(1)(i)(A)(*2*) of this provision, Navy personnel must not conduct more than 300 hours of MF1 surface ship hull-mounted mid-frequency active sonar or 20 hours of MF4 dipping sonar annually, or use explosives that could potentially result in takes of marine mammals during training and testing.

(*2*) Should national security require conduct of more than 300 hours of MF1 surface ship hull-mounted mid-frequency active sonar or 20 hours of MF4 dipping sonar, or use of explosives that could potentially result in the take of marine mammals during training or testing, Naval units must obtain permission from the appropriate designated Command authority prior to commencement of the activity. Navy personnel must provide NMFS with advance notification and include the information (*e.g.*, sonar hours or explosives usage) in its annual activity reports submitted to NMFS.

(B) *4-Islands Region Mitigation Area (November 15 – April 15 for active sonar; year-round for explosives).* (*1*) Except as provided in paragraph (b)(1)(i)(B)(*2*) of this provision, Navy personnel must not use MF1 surface ship hull-mounted mid-frequency active sonar or explosives that could potentially result in takes of marine mammals during training and testing.

(*2*) Should national security require use of MF1 surface ship hull-mounted mid-frequency active sonar or explosives that could potentially result in the take of marine mammals during training or testing, Naval units must obtain permission from the appropriate designated Command authority prior to commencement of the activity. Navy personnel must provide NMFS with advance notification and include the information (*e.g.*, sonar hours or explosives usage) in its annual activity reports submitted to NMFS.

(C) *Humpback Whale Special Reporting Areas (December 15 – April 15).* Navy personnel must report the total hours of surface ship hull-mounted mid-frequency active sonar used in the special reporting areas in its annual training and testing activity reports submitted to NMFS.

(D) *Humpback Whale Awareness Notification Message Area (November – April).* (*1*) Navy personnel must issue a seasonal awareness notification message to alert ships and aircraft operating in the area to the possible presence of concentrations of large whales, including humpback whales.

(*2*) To maintain safety of navigation and to avoid interactions with large whales during transits, Navy personnel must instruct vessels to remain vigilant to the presence of large whale species (including humpback whales), that when concentrated seasonally, may become vulnerable to vessel strikes.

(*3*) Platforms must use the information from the awareness notification message to assist their visual observation of applicable mitigation zones during training and testing activities and to aid in the implementation of procedural mitigation.

(2) *Mitigation areas for marine mammals in the Southern California portion of the study area for sonar, explosives, and vessel strikes*--(i) *Mitigation area requirements*--(A) *San Diego Arc, San Nicolas Island, and Santa Monica/Long Beach Mitigation Areas (June 1 – October 31).* (*1*) Except as provided in paragraph (b)(2)(i)(A)(*2*) of this provision, Navy personnel must not conduct more than a total of 200 hours of MF1 surface ship hull-mounted mid-frequency active sonar in the combined areas, excluding normal maintenance and systems checks, during training and testing.

(*2*) Should national security require conduct of more than 200 hours of MF1 surface ship hull-mounted mid-frequency active sonar in the combined areas during training and testing (excluding normal maintenance and systems checks), Naval units must obtain permission from the appropriate designated Command authority prior to commencement of the activity. Navy personnel must provide NMFS with advance notification and include the information (*e.g.*, sonar hours) in its annual activity reports submitted to NMFS.

(*3*) Except as provided in paragraph (b)(2)(i)(A)(*4*) of this provision, within the San Diego Arc Mitigation Area, Navy personnel must not use explosives that could potentially result in the take of marine mammals during large-caliber gunnery, torpedo, bombing, and missile (including 2.75-inch rockets) activities during training and testing.

(*4*) Should national security require use of explosives that could potentially result in the take of marine mammals during large-caliber gunnery, torpedo, bombing, and missile (including 2.75-inch rockets) activities during training or testing within the San Diego Arc Mitigation Area, Naval units must obtain permission from the appropriate designated Command authority prior to commencement of the activity. Navy personnel must provide NMFS with advance notification and include the information (*e.g.*, explosives usage) in its annual activity reports submitted to NMFS.

(*5*) Except as provided in paragraph (b)(2)(i)(A)(*6*) of this provision, within the San Nicolas Island Mitigation Area, Navy personnel must not use explosives that could potentially result in the take of marine mammals during mine warfare, large-caliber gunnery, torpedo, bombing, and missile (including 2.75-inch rockets) activities during training.

(*6*) Should national security require use of explosives that could potentially result in the take of marine mammals during mine warfare, large-caliber gunnery, torpedo, bombing, and missile (including 2.75-inch rockets) activities during training in the San Nicolas Island Mitigation Area, Naval units must obtain permission from the appropriate designated Command authority prior to commencement of the activity. Navy personnel must provide NMFS with advance notification and include the information (*e.g.*, explosives usage) in its annual activity reports submitted to NMFS.

(*7*) Except as provided in paragraph (b)(2)(i)(A)(*8*) of this provision, within the Santa Monica/Long Beach Mitigation Area, Navy personnel must not use explosives that could potentially result in the take of marine mammals during mine warfare, large-caliber gunnery, torpedo, bombing, and missile (including 2.75-inch rockets) activities during training and testing.

(*8*) Should national security require use of explosives that could potentially result in the take of marine mammals during mine warfare, large-caliber gunnery, torpedo, bombing, and missile (including 2.75-inch rockets) activities during training or testing in the Santa Monica/Long Beach Mitigation Area, Naval units must obtain permission from the appropriate designated Command authority prior to commencement of the activity. Navy personnel must provide NMFS with advance notification and include the information (*e.g.*, explosives usage) in its annual activity reports submitted to NMFS.

(B) *Santa Barbara Island Mitigation Area (year-round).* (*1*) Except as provided in paragraph (b)(2)(i)(B)(*2*) of this provision, Navy personnel must not use MF1 surface ship hull-mounted mid-frequency active sonar during training or testing, or explosives that could potentially result in the take of marine mammals during medium-caliber or large-caliber gunnery, torpedo, bombing, and missile (including 2.75-inch rockets) activities during training.

(*2*) Should national security require use of MF1 surface ship hull-mounted mid-frequency active sonar during training or testing, or explosives that could potentially result in the take of marine mammals during medium-caliber or large-caliber gunnery, torpedo, bombing, and missile (including 2.75-inch rockets) activities during training, Naval units must obtain permission from the appropriate designated Command authority prior to commencement of the activity. Navy personnel must provide NMFS with advance notification and include the information (*e.g.*, sonar hours or explosives usage) in its annual activity reports submitted to NMFS.

(C) *Blue Whale (June – October), Gray Whale (November – March), and Fin Whale (November – May) Awareness Notification Message Areas.* (*1*) Navy personnel must issue a seasonal awareness notification message to alert ships and aircraft operating in the area to the possible presence of concentrations of large whales, including blue whales, gray whales, and fin whales.

(*2*) To maintain safety of navigation and to avoid interactions with large whales during transits, Navy personnel must instruct vessels to remain vigilant to the presence of large whale species, that when concentrated seasonally, may become vulnerable to vessel strikes.

(*3*) Platforms must use the information from the awareness notification messages to assist their visual observation of applicable mitigation zones during training and testing activities and to aid in the implementation of procedural mitigation.

7. Monitoring and Reporting. When conducting activities identified in Condition 4 of this Authorization and § 218.70(c) of the regulations, the Holder of the Authorization and any person(s) operating under his or her authority must implement the following monitoring and reporting measures. All reports must be submitted to the Director, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring MD 20910.

(a) *Unauthorized take.* Navy personnel must notify NMFS immediately (or as soon as operational security considerations allow) if the specified activity identified in § 218.70 is thought to have resulted in the mortality or serious injury of any marine mammals, or in any Level A or Level B harassment take of marine mammals not identified in this subpart.

(b) *Monitoring and reporting under the LOAs.* The Navy must conduct all monitoring and reporting required under the LOAs, including abiding by the HSTT Study Area monitoring program. Details on program goals, objectives, project selection process, and current projects are available at *www.navymarinespeciesmonitoring.us.*

(c) *Notification of injured, live stranded, or dead marine mammals.* The Navy must consult the Notification and Reporting Plan, which sets out notification, reporting, and other requirements when dead, injured, or live stranded marine mammals are detected. The

Notification and Reporting Plan is available at *www.fisheries.noaa.gov/national/ marine-mammal-protection/incidentaltake-authorizations-military-readinessactivities.*

(d) *Annual HSTT Study Area marine species monitoring report.* The Navy must submit an annual report of the HSTT Study Area monitoring describing the implementation and results from the previous calendar year. Data collection methods must be standardized across range complexes and study areas to allow for comparison in different geographic locations. The report must be submitted to the Director, Office of Protected Resources, NMFS, either three months after the end of the calendar year, or three months after the conclusion of the monitoring year, to be determined by the Adaptive Management process. This report will describe progress of knowledge made with respect to intermediate scientific objectives within the HSTT Study Area associated with the Integrated Comprehensive Monitoring Program (ICMP). Similar study questions must be treated together so that progress on each topic can be summarized across all Navy ranges. The report need not include analyses and content that does not provide direct assessment of cumulative progress on the monitoring plan study questions. As an alternative, the Navy may submit a multi-Range Complex annual Monitoring Plan report to fulfill this requirement. Such a report will describe progress of knowledge made with respect to monitoring study questions across multiple Navy ranges associated with the ICMP. Similar study questions must be treated together so that progress on each topic can be summarized across multiple Navy ranges. The report need not include analyses and content that does not provide direct assessment of cumulative progress on the monitoring study question. This will continue to allow the Navy to provide a cohesive monitoring report covering multiple ranges (as per ICMP goals), rather than entirely separate reports for the HSTT, Gulf of Alaska, Mariana Islands, and Northwest Study Areas.

(e) *Annual HSTT Study Area training exercise report and testing activity report.* Each year, the Navy must submit two preliminary reports (Quick Look Report) detailing the status of authorized sound sources within 21 days after the anniversary of the date of issuance of each LOA to the Director, Office of Protected Resources, NMFS. Each year, the Navy must submit detailed reports to the Director, Office of Protected Resources, NMFS, within 3 months after the one-year anniversary of the date of issuance of the LOA. The HSTT annual Training Exercise Report and Testing Activity Report can be consolidated with other exercise reports from other range complexes in the Pacific Ocean for a single Pacific Exercise Report, if desired. The annual reports must contain information on major training exercises (MTEs), Sinking Exercise (SINKEX) events, and a summary of all sound sources used, including within specific mitigation reporting areas as described in paragraph (e)(3) of this provision. The analysis in the detailed reports must be based on the accumulation of data from the current year's report and data collected from previous reports. The detailed reports must contain information identified in paragraphs (e)(1) through (7) of this provision.

(1) *MTEs.* This section of the report must contain the following information for MTEs conducted in the HSTT Study Area.

(i) Exercise Information (for each MTE).

(A) Exercise designator.

(B) Date that exercise began and ended.

(C) Location.

(D) Number and types of active sonar sources used in the exercise.

(E) Number and types of passive acoustic sources used in exercise.

(F) Number and types of vessels, aircraft, and other platforms participating in exercise.

(G) Total hours of all active sonar source operation.

(H) Total hours of each active sonar source bin.

(I) Wave height (high, low, and average) during exercise.

(ii) Individual marine mammal sighting information for each sighting in each exercise when mitigation occurred:

(A) Date/Time/Location of sighting.

(B) Species (if not possible, indication of whale/dolphin/pinniped).

(C) Number of individuals.

(D) Initial Detection Sensor (*e.g.*, sonar, Lookout).

(E) Indication of specific type of platform observation was made from (including, for example, what type of surface vessel or testing platform).

(F) Length of time observers maintained visual contact with marine mammal.

(G) Sea state.

(H) Visibility.

(I) Sound source in use at the time of sighting.

(J) Indication of whether animal was less than 200 yd, 200 to 500 yd, 500 to 1,000 yd, 1,000 to 2,000 yd, or greater than 2,000 yd from sonar source.

(K) Whether operation of sonar sensor was delayed, or sonar was powered or shut down, and how long the delay.

(L) If source in use was hull-mounted, true bearing of animal from the vessel, true direction of vessel's travel, and estimation of animal's motion relative to vessel (opening, closing, parallel).

(M) Lookouts must 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.) and if any calves were present.

(iii) An evaluation (based on data gathered during all of the MTEs) of the effectiveness of mitigation measures designed to minimize the received level to which marine mammals may be exposed. This evaluation must identify the specific observations that support any conclusions the Navy reaches about the effectiveness of the mitigation.

(2) *SINKEXs*. This section of the report must 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 Lookouts before, during, and after exercise.

(D) Total number and types of explosive source bins 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, and other platforms, 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) for each sighting where mitigation was implemented.

(A) Date/Time/Location of sighting.

(B) Species (if not possible, indicate whale, dolphin, or pinniped).

(C) Number of individuals.

(D) Initial detection sensor (*e.g.*, sonar or Lookout).

(E) Length of time observers maintained visual contact with marine mammal.

(F) Sea state.

(G) Visibility.

(H) Whether sighting was before, during, or after detonations/exercise, and how many minutes before or after.

(I) Distance of marine mammal from actual detonations (or target spot if not yet detonated): Less than 200 yd, 200 to 500 yd, 500 to 1,000 yd, 1,000 to 2,000 yd, or greater than 2,000 yd.

(J) Lookouts must 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 and if any calves were present.

(K) The report must indicate whether explosive detonations were delayed, ceased, modified, or not modified due to marine mammal presence and for how long.

(L) If observation occurred while explosives were detonating in the water, indicate munition type in use at time of marine mammal detection.

(3) *Summary of sources used.* This section of the report must include the following information summarized from the authorized sound sources used in all training and testing events:

(i) Total annual hours or quantity (per the LOA) of each bin of sonar or other acoustic sources *(e.g.*, pile driving and air gun activities); and

(ii) Total annual expended/detonated ordinance (missiles, bombs, sonobuoys, etc.) for each explosive bin.

(4) *Humpback Whale Special Reporting Area (December 15 – April 15).* The Navy must report the total hours of operation of surface ship hull-mounted mid-frequency active sonar used in the special reporting area.

(5) *HSTT Study Area Mitigation Areas.* The Navy must report any use (sonar and/or explosives) that occurred as specifically described in these areas. Information included in the classified annual reports may be used to inform future adaptive management of activities within the HSTT Study Area.

(6) *Geographic information presentation.* The reports must present an annual (and seasonal, where practical) depiction of training and testing bin usage (as well as pile driving activities) geographically across the HSTT Study Area.

(7) *Sonar exercise notification.* The Navy must submit to NMFS an electronic report within fifteen calendar days after the completion of any MTE indicating:

(i) Location of the exercise;

(ii) Beginning and end dates of the exercise; and

(iii) Type of exercise.

(8) *Communication plan.* The Navy and NMFS 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 information described in Condition 7 Monitoring and Reporting.

8. Prohibitions. Notwithstanding the takings identified in Condition 5 of this LOA and authorized under this LOA and 50 CFR Part 218, Subpart H, no person in connection with the activities described in Condition 4 of this Authorization may take any marine mammal specified in Condition 5 of this Authorization other than by incidental take and in the course of conducting the activities specified in Condition 4; take any marine mammal other than a species or stock identified in Condition 5; take a marine mammal specified in Condition 5 if such taking results in more than a negligible impact on the species or stock of such marine mammal; or violate, or fail to comply with, the terms, conditions, and requirements of the regulations or this LOA.

9. (a) An LOA issued under 50 CFR §§ 216.106 and 218.76 for the activities identified in Condition 4 of this Authorization and § 218.70 of the regulations may be renewed or modified upon request by the applicant, provided that:

(1) The planned specified activity and mitigation, monitoring, and reporting measures, as well as the anticipated impacts, are the same as those described and analyzed for the regulations (excluding changes made pursuant to the adaptive management provision in Condition 10(1) of this Authorization); and

(2) NMFS determines that the mitigation, monitoring, and reporting measures required by the previous LOA(s) were implemented.

(b) For LOA modification or renewal requests by the applicant that include changes to the activity or to the mitigation, monitoring, or reporting measures (excluding changes made pursuant to the adaptive management provision in Condition 10(1) of this Authorization) that do not change the findings made for the regulations or result in no more than a minor change in the total estimated number of takes (or distribution by species or stock or years), NMFS may publish a notice of planned LOA in the **Federal Register**, including the associated analysis of the change, and solicit public comment before issuing the LOA.

10. An LOA issued under 50 CFR §§ 216.106 and 218.76 may be modified by NMFS under the following circumstances:

(1) *Adaptive management.* After consulting with the Navy regarding the practicability of the modifications, NMFS may modify (including adding or removing measures) the existing mitigation, monitoring, or reporting measures if doing so creates a reasonable likelihood of more effectively accomplishing the goals of the mitigation and monitoring.

(i) Possible sources of data that could contribute to the decision to modify the mitigation, monitoring, or reporting measures in an LOA include:

(A) Results from the Navy's monitoring from the previous year(s);

(B) Results from other marine mammal and/or sound research or studies; or

(C) Any information that reveals marine mammals may have been taken in a manner, extent, or number not authorized by the regulations in this subpart or subsequent LOAs.

(ii) If, through adaptive management, the modifications to the mitigation, monitoring, or reporting measures are substantial, NMFS will publish a notice of planned LOA in the **Federal Register** and solicit public comment.

(2) *Emergencies.* If NMFS determines that an emergency exists that poses a significant risk to the well-being of the species or stocks of marine mammals specified in LOAs issued pursuant to 50 CFR §§ 216.106 and 218.76, an LOA may be modified without prior notice or

opportunity for public comment. Notice would be published in the **Federal Register** within thirty days of the action.

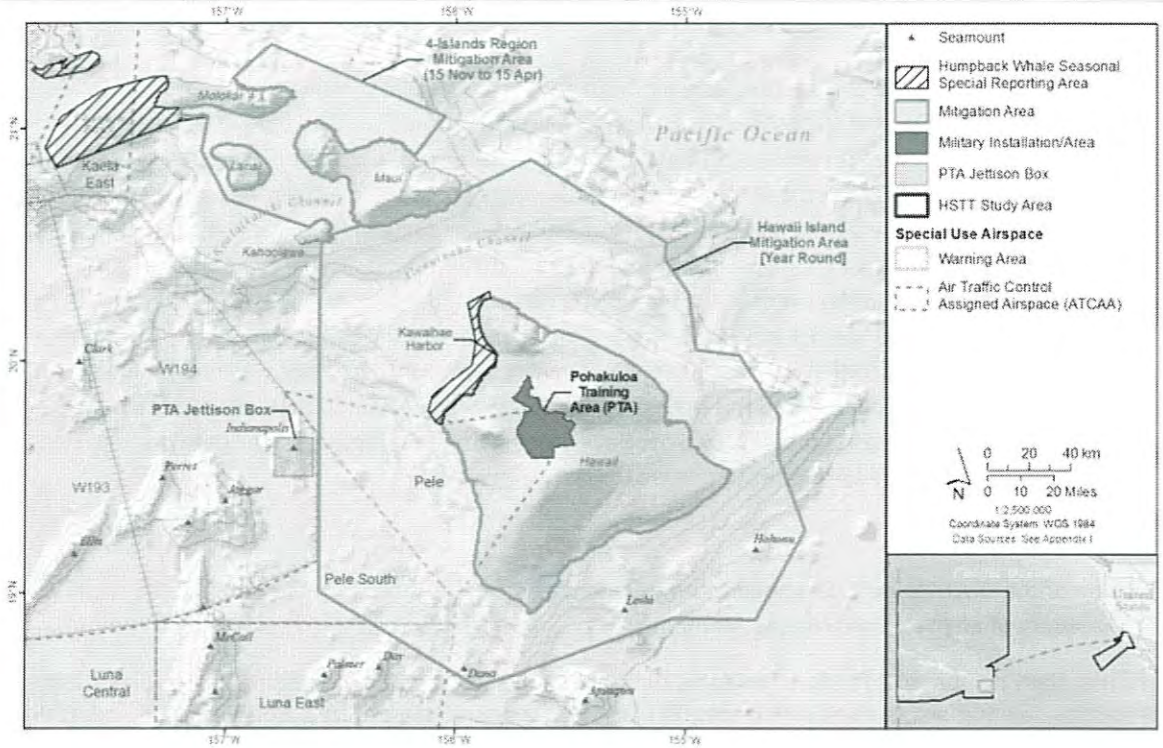
11. A copy of this Authorization or a document containing the equivalent requirements specified in this Authorization and the 50 CFR Part 218, Subpart H regulations, must be in the possession of the on-site Commanding Officer in order to take marine mammals under the authority of this Authorization while conducting the specified activities.

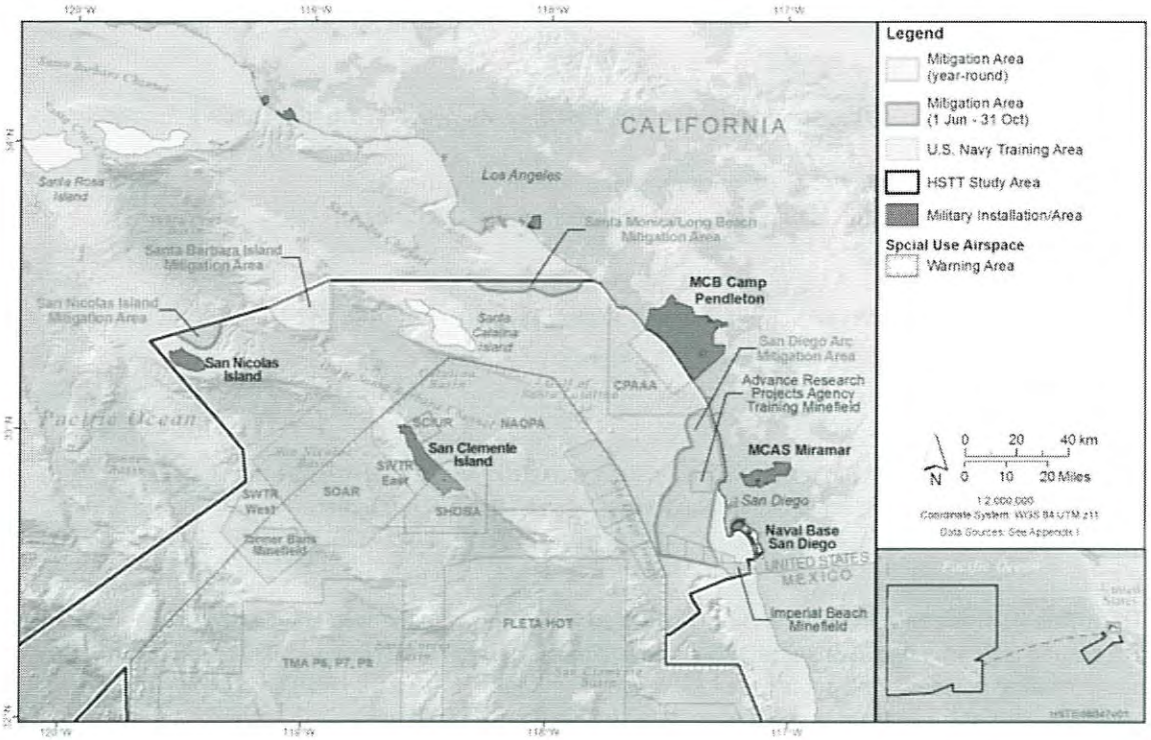
12. The Holder of this Authorization and any person operating under his or her authority is required to comply with the Terms and Conditions of the Incidental Take Statement corresponding to NMFS' Biological Opinion for the activities identified in Condition 4 as they pertain to Endangered Species Act listed marine mammals.

Donna S. Wieting,
Director, Office of Protected Resources,
National Marine Fisheries Service.

12/19/18
Date

Figures: Figures 1 and 2 as shown in the HSTT FEIS/OEIS of the HSTT Study Area.





NOTIFICATION AND REPORTING PLAN FOR THE U.S. NAVY HAWAII-SOUTHERN CALIFORNIA TRAINING AND TESTING STUDY AREA

BACKGROUND

This Notification and Reporting Plan will be cited as a requirement in the U.S. Navy (Navy) Hawaii-Southern-California Training and Testing (HSTT) Study Area final rule and requirements outlined below will be included as part of the Navy's Marine Mammal Protection Act (MMPA) Letters of Authorization (LOAs). The LOAs indicate the conditions under which the Navy is authorized to take marine mammals pursuant to Navy training and testing activities, involving sonar, explosive detonations, or vessel movements, conducted in the waters in the HSTT Study Area. This Notification and Reporting Plan is specifically intended to outline the applicable requirements the authorization is conditioned upon in the event that a marine mammal stranding (or milling) event is reported in or immediately adjacent to (within 50 kilometer (km) (27 nautical miles (nmi) of)) the HSTT Study Area. Since the National Marine Fisheries Service (NMFS) considers all plausible causes when investigating any injury, death, or stranding, any reporting provided pursuant to this plan does not, in any way, presume that any injuries, deaths, strandings, or milling events are related to, or caused by, Navy training or testing activities. All data provided will undergo appropriate security procedures prior to release to NMFS.

REQUIREMENTS

1) Notification of the Discovery of a Stranded Marine Mammal

a. Discovery of any Stranded Marine Mammal[2]

In the event that Navy personnel (uniformed military, civilian, or contractors while conducting Navy work) discover a live or dead stranded marine mammal within the HSTT Study Area or on Navy property, the Navy shall report the incident to NMFS (see communication protocols below) as soon as feasible. Reports of stranded pinnipeds on rookeries (*e.g.*, sea lions on San Nicolas Island, CA) are exempt from this provision.

The Navy will provide NMFS with:

- Time, date, and location (latitude/longitude) of the first discovery (and updated location information if known and applicable);
- Species identification (if known) or description of the animal(s) involved;
- Condition of the animal(s) (including carcass condition if the animal is dead);
- Observed behaviors of the animal(s), if alive;
- If available, photographs or video footage of the animal(s)
- General circumstances under which the animal was discovered (*e.g.*, during an MTE, explosive event, found on Navy property, or by transiting vessel)

b. Vessel Strike

Within the boundaries of the HSTT Study Area, whether such ship strike was authorized by the LOAs or not, in the event of a ship strike of a marine mammal by any Navy vessel, the Navy shall immediately report, or as soon as

[2] As defined in Title IV of the MMPA, a "stranding" is defined as *"an event in the wild in which (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 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."*

security clearance procedures and safety conditions allow, the information above in (a), to NMFS (see Communication Protocols below).

As soon as feasible, but no later than seven (7) business days, the Navy shall additionally report to NMFS, the:

- Vessel's speed during and leading up to the incident;
- Vessel's course/heading and what training or testing activity was being conducted (if applicable);
- Status of all sound sources in use (*e.g.*, active sonar, explosives);
- Description of avoidance measures/requirements that were in place at the time of the strike and what additional measures were taken, if any, to avoid strike;
- Environmental conditions (*e.g.*, wind speed and direction, Beaufort sea state, cloud cover, visibility) immediately preceding the strike;
- Estimated size and length of animal that was struck;
- Description of the behavior of the marine mammal immediately preceding and following the strike;
- If available, description of the presence and behavior of any other marine mammals immediately preceding the strike;
- Estimated fate of the animal (*e.g.*, dead, injured but alive, injured and moving, blood or tissue observed in the water, status unknown, disappeared, etc.);
- To the extent practicable, photographs or video footage of the animal(s); and
- Any relevant information discovered during Navy's investigation of a ship strike, including but not limited to other in-water platforms in use within a mile immediately preceding the strike, as available.

2) Additional Information Requests

If NMFS personnel determine that the circumstances of any marine mammal stranding found within the HSTT Study Area or within 50 km (27 nmi) of the boundary of the HSTT Study Area, suggest investigation of the association of Navy activities is warranted (example circumstances noted below), and an investigation into the stranding is being pursued, NMFS personnel will submit a written request to the Navy asking that they provide the following initial available information as soon as possible, but no later than seven (7) business days after the request for information.

- Status of all permitted sound source and/or explosive use in the 48 hours (hrs) preceding and within 50 km (27 nmi) of the discovery/notification of the stranding by NMFS, or estimated time of stranding; and
- If available, description of the behavior of any marine mammal(s) sightings preceding (48 hrs and 50 km (27 nmi)) and immediately after the discovery of the stranding (as available).

Examples of circumstances that could trigger the additional information request include, but are not limited to, the following:

- Atypical nearshore milling events of live cetaceans;
- Mass strandings of cetaceans (two or more individuals, not including cow/calf pairs);
- Beaked whale strandings;
- Necropsies with findings of pathologies that are unusual for the species or area; and
- Stranded animals with findings consistent with blast trauma.

In the event that the investigation is still inconclusive, the investigation of the association of Navy activities is still warranted, and the investigation is still being pursued, NMFS may have additional information requests. If the previously mentioned factors are present *(i.e.*, investigation is still inconclusive, etc.), the Navy would be required to answer additional questions regarding their activities within 148 km (80 nmi) and 72 hrs prior, provided appropriate security clearance procedures are followed.

3) Actions to Minimize Additional Harm to Live-Stranded (or Milling) Marine Mammals

In the event of a live stranding (or near-shore atypical milling) event within the HSTT Study Area or within 50 km (27 nmi) of the boundary of the HSTT Study Area, where the stranding network is engaged in herding or other interventions to return animals to the water, NMFS (individuals specifically identified in the HSTT Stranding Communication Protocol, NMFS Office of Protected Resources (OPR) – HQ senior administrators) will advise the Navy of the need to implement shutdown procedures for all permitted active acoustic sources or explosive devices within 50 km (27 nmi) of the stranding. Following this initial shutdown, NMFS will communicate with the Navy to determine if circumstances support any modification of the shutdown zone. The Navy may decline to implement all or part of the shutdown if the holder of the LOA, or his/her designee, determines that it is necessary for national security. Shutdown procedures for live stranding or milling marine mammals include the following:

- If at any time, the marine mammal(s) die or are euthanized, or if herding/intervention efforts are stopped, NMFS (individuals specifically identified in the HSTT Stranding Communication Protocol) will immediately advise the Navy that the shutdown around that animal(s)' location is no longer needed.
- Otherwise, shutdown procedures will remain in effect until NMFS (individuals specifically identified in the HSTT Stranding Communication Protocol) determines and advises the Navy that, all live animals involved have left the area (either of their own volition or following an intervention).
- If further observations of the marine mammals indicate the potential for restranding, additional coordination with the Navy will be required to determine what measures are necessary to minimize that likelihood (*e.g.*, extending the shutdown or moving operations farther away) and to implement those measures as appropriate.

Shutdown procedures are not related to the investigation of the cause of the stranding and their implementation is not intended to imply that Navy activity is the cause of the stranding. Rather, shutdown procedures are intended to protect marine mammals exhibiting indicators of distress by minimizing their exposure to possible additional stressors, regardless of the factors that contributed to the stranding.

COMMUNICATION PROTOCOL

Effective communication is critical to the successful implementation of this Notification and Reporting Plan in the HSTT Study Area. Very specific protocols for communication, including identification of the Navy personnel authorized to implement a shutdown and the NMFS personnel authorized to advise the Navy of the need to implement shutdown procedures, have been identified. These protocols and associated phone trees are currently in usable form and will be finalized for the HSTT Study Area by November 2018 and updated yearly (or more frequently, as appropriate) in the document entitled "HSTT Stranding Communication Protocols."