

**DEPARTMENT OF COMMERCE****National Oceanic and Atmospheric Administration****50 CFR Part 218**

[Docket No. 0906101030-0489-03]

RIN 0648-AX88

**Taking and Importing Marine Mammals; Navy Training Activities Conducted Within the Northwest Training Range Complex**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Final rule.

**SUMMARY:** NMFS, upon application from the U.S. Navy (Navy), is issuing regulations to govern the unintentional taking of marine mammals incidental to activities conducted in the Northwest Training Range Complex (NWTRC), off the coasts of Washington, Oregon, and northern California, for the period of October 2010 through October 2015. The Navy's activities are considered military readiness activities pursuant to the Marine Mammal Protection Act (MMPA), as amended by the National Defense Authorization Act for Fiscal Year 2004 (NDAA). These regulations, which allow for the issuance of "Letters of Authorization" (LOAs) for the incidental take of marine mammals during the described activities and specified timeframes, prescribe the permissible methods of taking and other means of effecting the least practicable adverse impact on marine mammal species or stocks and their habitat, as well as requirements pertaining to the monitoring and reporting of such taking.

**DATES:** Effective November 9, 2010 through November 9, 2015.

**ADDRESSES:** A copy of the Navy's application (which contains a list of the references used in this document), NMFS' Record of Decision (ROD), and other documents cited herein may be obtained by writing to Michael Payne, Chief, Permits, Conservation and Education Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910-3225 or by telephone via the contact listed here (*see* **FOR FURTHER INFORMATION CONTACT**).

**FOR FURTHER INFORMATION CONTACT:** Jolie Harrison, Office of Protected Resources, NMFS, (301) 713-2289, ext. 166.

**SUPPLEMENTARY INFORMATION:****Availability of Supporting Information**

Extensive Supplementary Information was provided in the proposed rule for this activity, which was published in the **Federal Register** on Monday, July 13, 2009 (74 FR 33828). This information will not be reprinted here in its entirety; rather, all sections from the proposed rule will be represented herein and will contain either a summary of the material presented in the proposed rule or a note referencing the page(s) in the proposed rule where the information may be found.

**Background**

Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce (Secretary) to allow, upon request, the incidental, but not intentional taking of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) during periods of not more than five consecutive years each if certain findings are made and regulations are issued or, if the taking is limited to harassment, notice of a proposed authorization is provided to the public for review.

Authorization shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses, and if the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such taking are set forth.

NMFS has defined "negligible impact" in 50 CFR 216.103 as:

"an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival."

The National Defense Authorization Act of 2004 (NDAA) (Pub. L. 108-136) modified the MMPA by removing the "small numbers" and "specified geographical region" limitations and amended the definition of "harassment" as it applies to a "military readiness activity" to read as follows (Section 3(18)(B) of the MMPA):

(i) any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild [Level A Harassment]; or

(ii) any act that disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered [Level B Harassment].

**Summary of Request**

In September 2008, NMFS received an application from the Navy requesting authorization for the take of individuals of 26 species of marine mammals incidental to upcoming Navy training activities to be conducted within the NWTRC, which extends west to 250 nautical miles (nm) (463 kilometers [km]) beyond the coast of Northern California, Oregon, and Washington and east to Idaho and encompasses 122,400 nm<sup>2</sup> (420,163 km<sup>2</sup>) of surface/subsurface ocean operating areas. These training activities are military readiness activities under the provisions of the NDAA. The Navy states, and NMFS concurs, that these military readiness activities may incidentally take marine mammals present within the NWTRC by exposing them to sound from mid-frequency or high-frequency active sonar (MFAS/HFAS) or underwater detonations. The Navy requested authorization to take individuals of 26 species of marine mammals by Level B Harassment and 13 individuals of 9 species by Level A Harassment. The Navy's model, which did not factor in any potential benefits of mitigation measures, predicted that 13 individual marine mammals would be exposed to levels of sound or pressure that would result in injury; thus, NMFS is authorizing the take of 13 individuals per year by Level A Harassment. However, NMFS and the Navy have determined that injury can most likely be avoided through the implementation of the required mitigation measures. No mortality of marine mammals is authorized incidental to naval exercises in the NWTRC.

**Background of Request**

The proposed rule contains a description of the Navy's mission, their responsibilities pursuant to Title 10 of the United States Code, and the specific purpose and need for the activities for which they requested incidental take authorization. The description contained in the proposed rule has not changed (74 FR 33829).

**Overview of the NWTRC**

The proposed rule contains a description of the NWTRC, including both the Inshore and Offshore areas. The description contained in the proposed rule has not changed (74 FR 33829).

**Description of Specified Activities**

The proposed rule contains a complete description of the Navy's specified activities that are covered by these final regulations, and for which the associated incidental take of marine mammals will be authorized in the

related LOAs. The proposed rule describes the nature and number of anti-submarine warfare (ASW) exercises, anti-surface warfare (ASUW) exercises, and mine warfare training (MIW) exercises, involving both mid- and high-frequency active sonar (MFAS and HFAS), as well as explosive detonations. It also describes the sound sources and explosive types used (74 FR 33828, pages 33829–33838). The narrative description of the action contained in the proposed rule has not changed, with one exception and one clarification indicated below. Tables 1, 2, and 3 list the types of sonar sources and the estimated yearly use, summarize the characteristics of the

exercise types, and list the explosive types used.

As a result of their Section 7 consultation with the U.S. Fish and Wildlife Service, the Navy agreed to make a small modification to their activity. They agreed to not conduct Explosive Ordnance Disposal (EOD) underwater demolition training at the Naval Magazine Indian Island site (1 event per year was previously included in the proposed rule). Instead, that training event will be conducted at the Hood Canal training site, so there will now be up to a total of two events per year in Hood Canal (instead of 1). The Navy further agreed that EOD will utilize charge sizes of 1.5 lbs or less at

the Hood Canal site, instead of the 2.5 lbs or less identified in the proposed rule.

The Navy has carefully characterized the training activities planned for the NWTRC over the 5 years covered by these regulations; however, evolving real-world needs necessitate flexibility in annual activities. NMFS has attempted to bound this flexibility with new language in the regulatory text (see § 218.110(c)) which allows for flexibility in planned activities, provided it does not affect the take estimates and anticipated impacts in a manner that changes our analysis.

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| Sonar Sources                      | Frequency (kHz)                   | Source Level (dB) re 1 µPa @ 1 m | Emission Spacing (m)* | Vertical Directivity | Horizontal Directivity | Associated Platform   | System Description   | Estimated Annual Amount                   | Unit      |
|------------------------------------|-----------------------------------|----------------------------------|-----------------------|----------------------|------------------------|---|--|---|-----------|
| AN/SQS-53C                         | 3.5                               | 235                              | 154                   | Omni                 | 240° forward-looking   | Cruiser (CG) and Destroyer (DDG) hull mounted sonar                                   | ASW search, detection, & localization (approximately 120 pings per hour)   | 43  | Hours     |
| AN/SQS-56C                         | 7.5                               | 225                              | 129                   | 13°                  | 30°                    | Frigate (FFG) hull-mounted sonar  | ASW search, detection, & localization (approximately 120 pings per hour)   | 65  | Hours     |
| AN/BQS-15                          | Classified (HF)                   | Classified                       |                       |                      |                        | Submarine (SSN) hull-mounted sonar  | Submarine navigation and mine detection sonar  | 42  | Hours     |
| AN/SSQ-62 DICASS (sonobuoy, tonal) | 8                                 | 201                              | 450                   | Omni                 | Omni                   | Helicopter and maritime patrol aircraft (P3 and P8 MPA) dropped sonobuoy              | Remotely commanded expendable sonar-equipped buoy (approximately 12 pings per use, 30 secs between pings, 8 buoys per hour)  | 886                                       | Buoys     |
| MK-48 torpedo sonar                | Classified (>10)                  | Classified                       | 144                   | Omni                 | Omni                   | Submarine (SSN) launched torpedo (used during SINKEX)                                 | Non-recoverable, explosive torpedo; sonar is active approximately 15 min per torpedo run                                     | 2   | Torpedoes |
| AN/SSQ-110A (IEER)                 | Classified (impulsive, broadband) | Classified                       | n/a                   | Omni                 | Omni                   | MPA deployed  | ASW system consists of explosive acoustic source buoy (contains two 4.1 lb charges) and expendable passive receiver sonobuoy | 149                                       | Buoys     |
| AN/SSQ-125 (AFER)                  | MF                                | Classified                       | n/a                   | Omni                 | Omni                   | MPA deployed  | ASW system consists of active sonobuoy and expendable passive receiver sonobuoy  | Replaces SSQ-110A, same effects as SSQ-62 |           |
| Range Pingers                      | 12.9                              | 194                              |                       |                      |                        | Ships, submarines, and ASW targets when ASW TRACKEX training is conducted on the PUTR | 1-3 pingers used in each ASW exercise, average of 3 hours each during PUTR operational days                                  | 180                                       | Hours     |
| PUTR Uplink                        | 8.8., 17, or 40                   | 190                              |                       |                      | 180 upward looking     | Portable Undersea Tracking Range, deployed on ocean floor                             | Used 10 days per month June-Aug, 5 hours/day. Deployed in at least 3nm from shore in 300-12000 ft of water                   | 150                                       | Hours     |

**Table 1.** Active sonar sources in the NWTRC and parameters used for modeling them. Many of the actual parameters and capabilities of these sonars are classified. Parameters used for modeling were derived to be as representative as possible. When, however, there were a wide range of potential modeling values, a nominal parameter likely to result in the most impact was used so that the model would err towards overestimation.

\*Spacing means distance between pings at the nominal speed

CG – Guided Missile Cruiser; DDG – Guided Missile Destroyer; DICASS – Directional Command-Activated Sonobuoy System; FFG – Fast Frigate; HF – High-Frequency; MF – Mid-Frequency.

| Exercise Type  | ASW<br>TRACKEX  | Mine<br>Avoidance   | EER/IEER  | MISSILEX (Air<br>based)                               | GUNEX   | BOMBEX  | SINKEX   | MIW   |
|--|---|---|---|---|---|---|--|---|
| Anticipated Takes  | Yes   | Yes   | Yes   | No *  | No *  | Yes   | Yes  | No *  |
| Explosion in or on water   | No  | No  | Yes   | No  | No  | Yes   | Yes  | Yes   |
| Length of Exercise   | 1.5 hours   | 6 hours   | 6 hours   | 2-3 hours   | 2-3 hours   | 1 hour  | 8-48 hours   | 5 hours                                     |
|  | SQS-53 (Search<br>Mode) = 43 hrs/year                 | AN/BQS-15   | 13 AIM-7 missiles   | 5 in gun  | 10 MK-82 Bombs<br>(High Explosive)                    |   |  |   |
|  | SQS-56 = 65<br>hrs/year                               | Sonar =<br>42 hrs/year                                    | 9 AIM-9 missiles  | (2,463 rounds)  |   |   |  |   |
|  | SSQ-62 DICASS =<br>886 sonobuoys/year                 |   | 7 AIM-120<br>missiles   | 20 mm   | 110 BDU-45 Bombs<br>(Inert)                           |   |  |   |
| Sonar hours, sonobuoys,<br>torpedoes, detonations, or<br>rounds per year | MK-48 Torpedo = 2<br>torpedoes/yr                     | SSQ-110A<br>or AN/SSQ-<br>125 = 149<br>sonobuoys/y<br>ear | 8 NATO Sea<br>Sparrow<br>or<br>8 Rolling<br>Airframe Missiles | (16,000 rounds)                                       |   |   | See<br>Narrative<br>SINKEX<br>section                    | 1.5 to 2.5.-lb<br>NEW - 4/year              |
|  |   |   |   | 25 mm   |   |   |  |   |
|  |   |   |   | (31,500 rounds)                                       |   |   |  |   |
|  |   |   |   | 57 mm   |   |   |  |   |
|  |   |   |   | (1,260 rounds)  |   |   |  |   |
|  |   |   |   | 76 mm   |   |   |  |   |
|  |   |   |   | (720 rounds)  |   |   |  |   |
|  |   |   |   | .50 caliber   |   |   |  |   |
|  |   |   |   | (117,000 rounds)                                      |   |   |  |   |
| Number Exercises per Year  | 65  | 7   | 12  | 28  | 340   | 30  | 2  | 4   |
| Area Used  | Pacific Northwest<br>Surface/<br>Subsurface<br>OPAREA | Pacific<br>Northwest<br>Surface/<br>Subsurface<br>OPAREA  | Pacific<br>Northwest<br>Surface/<br>Subsurface<br>OPAREA      | Pacific Northwest<br>Surface/<br>Subsurface<br>OPAREA | Pacific Northwest<br>Surface/<br>Subsurface<br>OPAREA | Pacific Northwest<br>Surface/<br>Subsurface<br>OPAREA | Pacific<br>Northwest<br>Surface/<br>Subsurface<br>OPAREA | EOD Crescent<br>Harbor, EOD<br>Floral Point |
| Months of Year conducted   | Year Round  | Year Round  | Year Round  | Year Round  | Year Round  | Year Round  | Year Round   | Year Round                                  |

Table 2. Summary of exercise types in NWTRC noting duration, location, sources and explosives used, and time of year

\* Though take is not anticipated to result from these exercises, they are included for information because they have been addressed in other rules

|                    | NEW   | TTS     |        | Injury  |           | Mortality | Exclusion                      |
|--------------------|-------|---------|--------|---------|-----------|-----------|--------------------------------|
|                    |       | 182 SEL | 23 psi | 205 SEL | 13 psi-ms |           |                                |
| 5" Naval gunfire   | lbs   |         |        |         |           |           |                                |
|                    | 9.5   | 247     | 273    | 46      | 44        | 31 psi-ms | Zone Used (m)                  |
| 76mm rounds        | 1.6   | 102     | 151    | 21      | 25        | 24        | 548                            |
| Demolition         | 2.5   | 179     | 175    | 35      | 74        | 13        | 548                            |
| Maverick           | 78.5  | 959     | 554    | 182     | 191       | 31        | 548                            |
| HARM               | 41.6  | 689     | 448    | 133     | 156       | 107       | 1852 (SINKEX), 1645 (MISSILEX) |
| Hellfire           | 16.4  | 424     | 327    | 84      | 112       | 86        | 1853 (SINKEX), 1645 (MISSILEX) |
| SLAM               | 164.3 | 1406    | 726    | 262     | 237       | 59        | 1854 (SINKEX), 1645 (MISSILEX) |
| Harpoon            | 448   | 1811    | 866    | 120     | 270       | 137       | 1855 (SINKEX), 1645 (MISSILEX) |
| MK-82              | 238   | 1723    | 835    | 315     | 263       | 158       | 1852 (SINKEX), 1645 (MISSILEX) |
| MK-48              | 851   | 3469    | 1278   | 662     | 694       | 153       | 1852 (SINKEX), 914 (BOMBEX)    |
| GBU-10             | 945   | 3626    | 1326   | 613     | 373       | 424       | 1852 (SINKEX), 914 (BOMBEX)    |
| GBU-12             | 238   | 1712    | 832    | 315     | 262       | 223       | 1853 (SINKEX), 914 (BOMBEX)    |
| GBU-16             | 445   | 2390    | 1054   | 428     | 310       | 153       | 1854 (SINKEX), 914 (BOMBEX)    |
| AN/SSQ-110A (IEER) | 5     | 325     | 281    | 72      | 159       | 183       | 1855 (SINKEX), 914 (BOMBEX)    |
|                    |       |         |        |         |           | 77        | 914                            |

**Table 3.** Representative ordnance used in NW/TRC Explosive Exercises for which take of marine mammals is anticipated.

Table also indicates range to indicated threshold and size of Navy exclusion zone used in mitigation. Units are meters.

**Description of Marine Mammals in the Area of the Specified Activities**

Twenty-seven marine mammal species have confirmed or possible occurrence within the NWTRC, including six species of baleen whales (mysticetes), 16 species of toothed whales (odontocetes), five species of seals and sea lions (pinnipeds), and the sea otter (mustelids). Sea otters are under the jurisdiction of the Department of the Interior and are not considered further.) Table 4 summarizes their abundance, Endangered Species Act (ESA) status, population trends, and

occurrence in the area. Seven of the species are ESA-listed and considered depleted under the MMPA: Blue whale; fin whale; humpback whale; sei whale; sperm whale; southern resident killer whale; and Steller sea lion. The proposed rule contains a discussion of one species that is not considered further in the analysis (the North Pacific right whale) because of its rarity in the NWTRC. The proposed rule also contains a discussion of bottlenose dolphins, but due to their extralimitality, the impact analysis concluded that this species will not be taken by the Navy's activity. The

proposed rule also contains a discussion of important areas, including southern resident killer whale and Steller sea lion critical habitat, and the gray whale migration corridor. The proposed rule also includes a discussion of marine mammal vocalizations. Last, the proposed rule includes a discussion of the methods used to estimate marine mammal density in the NWTRC. The Description of Marine Mammals in the Area of the Specified Activities section has not changed from what was in the proposed rule (74 FR 33828, pages 33838–33842).

| Common Name                                      | Abundance (CV) | Stock  | Calculated Density (animals per km <sup>2</sup> ) | Population Trend        | Occurrence | Warm Season (May-Oct) | Cold Season (Nov-Apr) |
|--|----------------|--|---|-------------------------|------------|-----------------------|-----------------------|
| <b>ESA Listed Baleen Whales</b>                  |                |  |   |                         |            |                       |                       |
| Blue whale <sup>1,2,3</sup>                      | 1,186 (0.19)   | Eastern North Pacific                        | 0.0005 <sup>a</sup>                               | May be increasing       | Common     | Yes                   | No                    |
| <i>Balaenoptera musculus</i>                     |                |  |   |                         |            |                       |                       |
| Fin whale <sup>1,2,3</sup>                       | 3454 (0.27)    | California, Oregon, and Washington           | 0.0014 <sup>a</sup>                               | May be increasing       | Common     | Yes                   | Yes                   |
| <i>Balaenoptera physalus</i>                     |                |  |   |                         |            |                       |                       |
| Humpback whale <sup>1,2,3</sup>                  | 1,396 (0.15)   | Eastern North Pacific                        | 0.0007 <sup>a</sup>                               | Increasing              | Common     | Yes                   | No                    |
| <i>Megaptera novaeangliae</i>                    |                |  |   |                         |            |                       |                       |
| Sei whale <sup>1,2,3</sup>                       | 43 (0.61)      | Eastern North Pacific                        | 0.000115 <sup>c</sup><br>0.000182 <sup>d</sup>    | May be increasing       | Common     | Yes                   | No                    |
| <i>Balaenoptera borealis</i>                     |                |  |   |                         |            |                       |                       |
| <b>ESA Listed Toothed Whales</b>                 |                |  |   |                         |            |                       |                       |
| Sperm whale <sup>1,2,3</sup>                     | 2,265 (0.34)   | California, Oregon, and Washington, Offshore | 0.0026 <sup>a</sup>                               | Unknown                 | Common     | Yes                   | Yes                   |
| <i>Physeter macrocephalus</i>                    |                |  |   |                         |            |                       |                       |
| Southern resident killer whale <sup>1,2</sup>    | 89             | Eastern North Pacific, Southern Resident     | 0.00055/0.0162                                    | possibly decreasing     | Common     | Yes                   | Yes                   |
| <i>Orcinus orca</i>                              |                |  |   |                         |            |                       |                       |
| <b>ESA Listed Pinniped</b>                       |                |  |   |                         |            |                       |                       |
| Steller sea lion <sup>2,4</sup>                  | 48,519         | Eastern                                      | 0.000011 / 0.011 <sup>b</sup>                     | possibly increasing     | Common     | Yes                   | Yes                   |
| <i>Eumetopias jubatus</i>                        |                |  |   |                         |            |                       |                       |
| <b>Non-ESA Listed Baleen Whales</b>              |                |  |   |                         |            |                       |                       |
| Gray whale                                       | 18,178         | Eastern North Pacific                        | --  | Increasing              | Common     | No                    | Yes                   |
| <i>Eschrichtius robustus</i>                     |                |  |   |                         |            |                       |                       |
| Minke whale                                      | 898 (0.65)     | California, Oregon, and Washington           | 0.000655 <sup>c</sup><br>0.000395 <sup>d</sup>    | No trends               | Common     | No                    | Yes                   |
| <i>Balaenoptera acutorostrata</i>                |                |  |   |                         |            |                       |                       |
| <b>Non-ESA Listed Toothed Whales</b>             |                |  |   |                         |            |                       |                       |
| Baird's beaked whale                             | 313 (0.55)     | California, Oregon, and Washington           | 0.001614 <sup>c</sup><br>0.000775 <sup>d</sup>    | Unknown                 | Common     | Yes                   | Yes                   |
| <i>Berardius bairdii</i>                         |                |  |   |                         |            |                       |                       |
| Bottlenose dolphin offshore                      | 3,257 (0.43)   | California, Oregon, Washington, Offshore     | 0.000515 <sup>c</sup>                             | No trend                | Very Rare  | Yes                   | Yes                   |
| <i>Tursiops truncatus</i>                        |                |  |   |                         |            |                       |                       |
| Cuvier's beaked whale                            | 2,171 (0.75)   | California, Oregon, and Washington           | 0.003038 <sup>c</sup>                             | Unknown                 | Common     | Yes                   | Unknown               |
| <i>Ziphius cavirostris</i>                       |                |  |   |                         |            |                       |                       |
| Dall's porpoise                                  | 57,549 (0.34)  | California, Oregon, and Washington           | 0.0970 <sup>a</sup>                               | Unknown                 | Common     | No                    | Yes                   |
| <i>Phocoenoides dalli</i>                        |                |  |   |                         |            |                       |                       |
| Dwarf sperm whale                                | unknown        | California, Oregon, and Washington           | --  | Unknown                 | Very Rare  | Unknown               | Yes                   |
| <i>Kogia sima</i>                                |                |  |   |                         |            |                       |                       |
| Harbor porpoise                                  | 17,763 (0.39)  | Northern California/ Southern Oregon         | --  | Stable                  | Common     | Yes                   | Yes                   |
| <i>Phocoena phocoena</i>                         | 37,745 (0.38)  | Washington/ Oregon Coastal                   | --  | Stable                  |            |                       |                       |
|  | 10,682 (0.38)  | Washington Inland Waters                     | --  | Stable                  |            |                       |                       |
|  |                |  | --  | Stable                  |            |                       |                       |
| Killer whale offshore                            | 422            | Eastern North Pacific Offshore               | .00055/0.0162                                     | Unknown                 | Common     | No                    | Yes                   |
| <i>Orcinus orca</i>                              |                |  |   |                         |            |                       |                       |
| Killer whale transient                           | 346            | Eastern North Pacific Transient              | .00055/0.0162                                     | Unknown                 | Common     | No                    | Yes                   |
| <i>Orcinus orca</i>                              |                |  |   |                         |            |                       |                       |
| Mesoplodont beaked whales <sup>a</sup>           | 1,024 (0.77)   | Washington, Oregon, and California           | 0.00135 <sup>c</sup><br>0.001321 <sup>d</sup>     | Unknown                 | Rare       | Unknown               | Unknown               |
| <i>Mesoplodon sp.</i>                            |                |  |   |                         |            |                       |                       |
| Northern right whale dolphin                     | 15,305 (0.232) | California, Oregon, and Washington           | 0.0014 <sup>a</sup>                               | No trend                | Common     | Yes                   | Yes                   |
| <i>Lissodelphis borealis</i>                     |                |  |   |                         |            |                       |                       |
| Pacific white-sided dolphin                      | 25,233 (0.25)  | California, Oregon, and Washington           | 0.0441 <sup>a</sup>                               | No trend                | Common     | Yes                   | Yes                   |
| <i>Lagenorhynchus obliquidens</i>                |                |  |   |                         |            |                       |                       |
| <b>Non-ESA Listed Toothed Whales (continued)</b> |                |  |   |                         |            |                       |                       |
| Pygmy sperm whale                                | Unknown        | California, Oregon, and Washington           | 0.001232 <sup>c</sup><br>0.000504 <sup>d</sup>    | Unknown                 | Common     | Unknown               | Unknown               |
| <i>Kogia breviceps</i>                           |                |  |   |                         |            |                       |                       |
| Risso's Dolphin                                  | 12,093 (0.24)  | California, Oregon, and Washington           | 0.013222 <sup>c</sup><br>0.004014 <sup>d</sup>    | No trend                | Common     | Yes                   | Yes                   |
| <i>Grampus griseus</i>                           |                |  |   |                         |            |                       |                       |
| Short-beaked common dolphin                      | 487,622 (0.26) | California, Oregon, and Washington           | 0.1570 <sup>a</sup>                               | Varies by oceanographic | Common     | Yes                   | Yes                   |
| <i>Delphinus delphis</i>                         |                |  |   |                         |            |                       |                       |
| Short-finned pilot whale                         | 245 (0.97)     | California, Oregon, and Washington           | --  | Unknown                 | Rare       | Unknown               | Unknown               |
| <i>Globicephala macrorhynchus</i>                |                |  |   |                         |            |                       |                       |
| Striped dolphin                                  | 23,883 (0.44)  | California, Oregon, and Washington           | 0.0000497 <sup>c</sup><br>0.015653 <sup>d</sup>   | No trend                | Rare       | No                    | Unknown               |
| <i>Stenella coeruleoalba</i>                     |                |  |   |                         |            |                       |                       |
| <b>Non-ESA Listed Pinnipeds</b>                  |                |  |   |                         |            |                       |                       |
| California sea lion                              | 238,000        | U.S.   | --  | Increasing              | Common     | Yes                   | Yes                   |
| <i>Zalophus californianus</i>                    |                |  |   |                         |            |                       |                       |
| Harbor seal                                      | 34,233         | California                                   | --  | Increasing              | Common     | Yes                   | Yes                   |
|  | 24,732 (0.12)  | Washington/ Oregon Coastal                   | --  | Stable                  |            |                       |                       |
|  | 14,612 (0.15)  | Washington Inland                            | --  | Stable                  |            |                       |                       |
|  |                |  | --  | Stable                  |            |                       |                       |
| Northern elephant seal                           | 124,000        | California Breeding                          | --  | Increasing              | Common     | Yes                   | Yes                   |
| <i>Mirounga angustirostris</i>                   |                |  |   |                         |            |                       |                       |
| Northern fur seal                                | 721,935        | Eastern Pacific                              | --  | Increasing              | Common     | Yes                   | Yes                   |
| <i>Callorhinus ursinus</i>                       |                |  |   |                         |            |                       |                       |

Table 4. Marine mammals of known occurrence in the NWTRC.

BILLING CODE 3510-22-C

### Brief Background on Sound

The proposed rule contains a section that provides a brief background on the principles of sound that are frequently

referred to in this rulemaking (74 FR 33828, pages 33845–33846). This section also includes a discussion of the functional hearing ranges of the different groups of marine mammals (by frequency) as well as a discussion of the

two main sound metrics used in NMFS analysis (sound pressure level (SPL) and sound energy level (SEL)). The information contained in the proposed rule has not changed.

### Potential Effects of Specified Activities on Marine Mammals

With respect to the MMPA, NMFS' effects assessment serves four primary purposes: (1) To prescribe the permissible methods of taking (*i.e.*, Level B Harassment (behavioral harassment), Level A Harassment (injury), or mortality, including an identification of the number and types of take that could occur by Level A or B Harassment or mortality) and to prescribe other means of effecting the least practicable adverse impact on such species or stock and its habitat (*i.e.*, mitigation); (2) to determine whether the specified activity will have a negligible impact on the affected species or stocks of marine mammals (based on the likelihood that the activity will adversely affect the species or stock through effects on annual rates of recruitment or survival); (3) to determine whether the specified activity will have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (however, there are no subsistence communities that would be affected in the NWTRC, so this determination is inapplicable for this rulemaking); and (4) to prescribe requirements pertaining to monitoring and reporting.

In the Potential Effects of Specified Activities on Marine Mammals section of the proposed rule NMFS included a qualitative discussion of the different ways that MFAS/HFAS and underwater explosive detonations may potentially affect marine mammals (some of which NMFS would not classify as harassment), as well as a discussion of the potential effects of vessel movement and collision (74 FR 33828, pages 33846–33862). Marine mammals may experience direct physiological effects (such as threshold shift), acoustic masking, impaired communications, stress responses, and behavioral disturbance. This section also included a discussion of some of the suggested explanations for the association between the use of MFAS and marine mammal strandings (such as behaviorally-mediated bubble growth) that have been observed a limited number of times in certain circumstances (the specific events are also described) (74 FR 33828, pages 33855–33860). The information contained in Potential Effects of Specified Activities on Marine Mammals section from the proposed rule has not changed.

Later, in the Estimated Take of Marine Mammals Section, NMFS relates and quantifies the potential effects to marine mammals from MFAS/HFAS and underwater detonation of explosives

discussed here to the MMPA definitions of Level A and Level B Harassment.

### Mitigation

In order to issue an incidental take authorization (ITA) under Section 101(a)(5)(A) of the MMPA, NMFS must set forth the “permissible methods of taking pursuant to such activity, and other means of effecting the least practicable adverse impact on such species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance.” The NDAA of 2004 amended the MMPA as it relates to military-readiness activities and the ITA process such that “least practicable adverse impact” shall include consideration of personnel safety, practicality of implementation, and impact on the effectiveness of the “military readiness activity.” The training activities described in the NWTRC application are considered military readiness activities.

NMFS reviewed the proposed NWTRC activities and the proposed NWTRC mitigation measures as described in the Navy's LOA application to determine if they would result in the least practicable adverse effect on marine mammals, which includes a careful balancing of the likely benefit of any particular measure to the marine mammals with the likely effect of that measure on personnel safety, practicality of implementation, and impact on the effectiveness of the “military-readiness activity.” NMFS determined that further discussion was necessary regarding the use of MFAS/HFAS for training in the Inshore Area that contains the southern resident killer whale critical habitat.

To address the concerns above, the Navy clarified for NMFS that no training utilizing MFAS/HFAS had occurred in the Inshore Area of NWTRC for the last six years, that it is not being conducted now, and that there are no plans to utilize MFAS/HFAS for training in the Inshore Area (*i.e.*, it is not part of the Navy's specified activity). This information has been factored into NMFS' effects analysis. The Navy has indicated that should their plans change in the future they will request a new LOA, which would likely require new regulations, for the additional activities within the NWTRC. The Navy further explained that no explosive training occurs in the Inshore Area other than the annual detonation of four, up to 1.5–2.5lb charges, which are not anticipated to result in the take of marine mammals. For these reasons, no take of killer whales is anticipated to result from the

Navy's activities in the Inshore area and none has been authorized.

NMFS' proposed rule includes a list of the Navy's proposed mitigation measures (74 FR 33828, pages 33863–33867), which have been included in the regulatory text of this document. The following mitigation measure has been added since the publication of the proposed rule:

“Naval vessels will maneuver to keep at least 1,500 ft (500 yds) away from any observed whale in the vessel's path and avoid approaching whales head-on. These requirements do not apply if a vessel's safety is threatened, such as when change of course will create an imminent and serious threat to a person, vessel, or aircraft, and to the extent vessels are restricted in their ability to maneuver. Restricted maneuverability includes, but is not limited to, situations when vessels are engaged in dredging, submerged activities, launching and recovering aircraft or landing craft, minesweeping activities, replenishment while underway and towing activities that severely restrict a vessel's ability to deviate course. Vessels will take reasonable steps to alert other vessels in the vicinity of the whale. Given rapid swimming speeds and maneuverability of many dolphin species, naval vessels would maintain normal course and speed on sighting dolphins unless some condition indicated a need for the vessel to maneuver.”

Based on our evaluation of the proposed measures and other measures considered by NMFS or recommended by the public, NMFS has determined that the required mitigation measures (including the Adaptive Management (see Adaptive Management below) component) are adequate means of effecting the least practicable adverse impacts on marine mammal species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, while also considering personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity. The proposed rule contains further support for this finding in the Mitigation Conclusion section (74 FR 33828, pages 33867–33868). During the public comment period, a few mitigation measures not previously considered were recommended and NMFS' analysis of these measures is included in the Response to Public Comment section.

### Research

The Navy provides a significant amount of funding and support to marine research. In the past five years



the agency provided over \$100 million (\$26 million in FY08 alone) to universities, research institutions, federal laboratories, private companies, and independent researchers around the world to study marine mammals. The U.S. Navy sponsors 70 percent of all U.S. research concerning the effects of human-generated sound on marine mammals and 50 percent of such research conducted worldwide. Major topics of Navy-supported research include the following:

- Better understanding of marine species distribution and important habitat areas,
- Developing methods to detect and monitor marine species before and during training,
- Understanding the effects of sound on marine mammals, sea turtles, fish, and birds, and
- Developing tools to model and estimate potential effects of sound.

This research is directly applicable to Fleet training activities, particularly with respect to the investigations of the potential effects of underwater noise sources on marine mammals and other protected species. Proposed training activities employ active sonar and underwater explosives, which introduce sound into the marine environment.

The Marine Life Sciences Division of the Office of Naval Research currently coordinates six programs that examine the marine environment and are devoted solely to studying the effects of noise and/or the implementation of technology tools that will assist the Navy in studying and tracking marine mammals. The six programs are as follows:

- Environmental Consequences of Underwater Sound,
- Non-Auditory Biological Effects of Sound on Marine Mammals,
- Effects of Sound on the Marine Environment,
- Sensors and Models for Marine Environmental Monitoring,
- Effects of Sound on Hearing of Marine Animals, and
- Passive Acoustic Detection, Classification, and Tracking of Marine Mammals.

The Navy has also developed the technical reports referenced within this document, which include the Marine Resource Assessments and the Navy OPAREA Density Estimates (NODE) reports. Furthermore, research cruises by NMFS and by academic institutions have received funding from the U.S. Navy.

The Navy has sponsored several workshops to evaluate the current state of knowledge and potential for future acoustic monitoring of marine

mammals. The workshops brought together acoustic experts and marine biologists from the Navy and other research organizations to present data and information on current acoustic monitoring research efforts and to evaluate the potential for incorporating similar technology and methods on instrumented ranges. However, acoustic detection, identification, localization, and tracking of individual animals still requires a significant amount of research effort to be considered a reliable method for marine mammal monitoring. The Navy supports research efforts on acoustic monitoring and will continue to investigate the feasibility of passive acoustics as a potential mitigation and monitoring tool.

Overall, the Navy will continue to fund ongoing marine mammal research, and is planning to coordinate long term monitoring/studies of marine mammals on various established ranges and operating areas. The Navy will continue to research and contribute to university/external research to improve the state of the science regarding marine species biology and acoustic effects. These efforts include mitigation and monitoring programs; data sharing with NMFS and via the literature for research and development efforts; and future research as described previously.

#### **Long-Term Prospective Study**

Apart from this final rule, NMFS, with input and assistance from the Navy and several other agencies and entities, will perform a longitudinal observational study of marine mammal strandings to systematically observe for and record the types of any pathologies and diseases and investigate the relationship with potential causal factors (e.g., active sonar, seismic, weather). The study will not be a true "cohort" study, because NMFS will be unable to quantify or estimate specific active sonar or other sound exposures for individual animals that strand. However, a cross-sectional or correlational analyses, a method of descriptive rather than analytical epidemiology, can be conducted to compare population characteristics, e.g., frequency of strandings and types of specific pathologies between general periods of various anthropogenic activities and non-activities within a prescribed geographic space. In the long-term study, NMFS will more fully and consistently collect and analyze data on the demographics of strandings in specific locations and consider anthropogenic activities and physical, chemical, and biological environmental parameters. This approach in conjunction with true cohort studies

(tagging animals, measuring received sounds, and evaluating behavior or injuries) in the presence of activities and non-activities will provide critical information needed to further define the impacts of active sonar training exercises and other anthropogenic and non-anthropogenic stressors. In coordination with the Navy and other Federal and non-federal partners, the comparative study will be designed and conducted for specific sites during intervals of both the presence and absence of anthropogenic activities such as active sonar transmission or other sound exposures to evaluate demographics of morbidity and mortality, presence of lesions, and cause of death or stranding. Additional data that will be collected and analyzed in an effort to control potential confounding factors includes factors such as average sea temperature (or just season), meteorological or other environmental variables (e.g., seismic activity), fishing activities, etc. All efforts will be made to include appropriate controls (*i.e.*, no active sonar or no seismic); environmental variables may, however, complicate the interpretation of "control" measurements. The Navy and NMFS along with other partners are evaluating mechanisms for funding this study.

#### **Monitoring**

In order to issue an ITA for an activity, Section 101(a)(5)(A) of the MMPA states that NMFS must set forth "requirements pertaining to the monitoring and reporting of such taking." The MMPA implementing regulations at 50 CFR 216.104(a)(13) indicate that requests for LOAs must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of taking or impacts on populations of marine mammals that are expected to be present.

#### **Proposed Monitoring Plan for the NWTRC**

The Navy's final Monitoring Plan for the NWTRC may be viewed at NMFS' web site: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications>. The Monitoring Plan for NWTRC has been designed as a collection of focused "studies" (described fully in the NWTRC draft Monitoring Plan) to gather data that will allow the Navy to address the following questions:

- (a) Are marine mammals exposed to MFAS/HFAS, especially at levels associated with adverse effects (*i.e.*, based on NMFS' criteria for behavioral

harassment, TTS, or PTS)? If so, at what levels are they exposed?

(b) If marine mammals are exposed to MFAS/HFAS in the NWTRC Range Complex, do they redistribute geographically as a result of continued exposure? If so, how long does the redistribution last?

(c) If marine mammals are exposed to MFAS/HFAS, what are their behavioral responses to various levels?

(d) What are the behavioral responses of marine mammals that are exposed to explosives at specific levels?

(e) Is the Navy's suite of mitigation measures for MFAS/HFAS (e.g., measures agreed to by the Navy through permitting) effective at preventing TTS, injury, and mortality of marine mammals?

The extent of the training utilizing MFAS/HFAS in the NWTRC is comparatively less than several of the other training areas utilized by the Navy and not every one of these original five study questions will be addressed within NWTRC. Rather, data collected from NWTRC monitoring will be used to supplement a consolidated range complex marine mammal monitoring report incorporating data from the Navy's Hawaii Range Complex, Marianas Island Range Complex, NWTRC, and Southern California Range Complex. Monitoring methods proposed for the NWTRC include a combination of research elements designed to support both Range Complex specific monitoring, and contribute information to a larger Navy-wide program. These research elements include:

- Deployment of passive acoustic monitoring (PAM) devices, and,
- Marine mammal tagging.

The monitoring techniques selected for the NWTRC will be primarily focused on providing additional data for study questions (b), (c), and (d).

The amount of each type of monitoring may vary from the summary table or Monitoring Plan based on annual discussions between NMFS and the Navy regarding previous monitoring results and effectiveness and in accordance with the Adaptive Management component of this rule, however, the overall effort over the 5-year period will remain approximately equal to that laid out in the monitoring plan.

This monitoring plan has been designed to gather data on all species of marine mammals that are observed in the NWTRC; however, where appropriate, priority will be given to beaked whales, ESA-listed species, killer whales, and harbor porpoises. The Plan recognizes that deep-diving and

cryptic species of marine mammals such as beaked whales have a low probability of detection (Barlow and Gisiner, 2006). Therefore, methods will be utilized to attempt to address this issue (e.g., passive acoustic monitoring).

In addition to the Monitoring Plan for MIRC, the Navy has completed an Integrated Comprehensive Monitoring Program (ICMP) Plan.

The ICMP will be used both as: (1) A planning tool to focus Navy monitoring priorities (pursuant to ESA/MMPA requirements) across Navy Range Complexes and Exercises; and (2) an adaptive management tool, through the consolidation and analysis of the Navy's monitoring and watchstander data, as well as new information from other Navy programs (e.g., R&D), and other appropriate newly published information. The Navy finalized a 2009 ICMP Plan outlining the program on December 22, 2009, as required by the 2009 LOAs for the Hawaii Range Complex (HRC), the Southern California Range (SOCAL), and Atlantic Fleet Active Sonar Training (AFASST). The ICMP may be viewed at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>.

The ICMP is a developing program that will be in place for the length of this rule, and beyond, and NMFS and Navy will evaluate it annually to determine if it needs to be updated in order to keep pace with advances in science and technology and the collection of new data. In the 2009 ICMP Plan, the Navy outlines three areas of targeted development for 2010, including:

1. Identifying more specific monitoring sub-goals under the major goals that have been identified.
2. Characterizing Navy Range Complexes and Study Areas within the context of the prioritization guidelines described in the ICMP.
3. Continuing to Develop Data Management, Organization and Access Procedures.

The Navy shall comply with the 2009 ICMP Plan and continue to improve the program in consultation with NMFS. Changes and improvements to the program made during 2010 (as prescribed in the 2009 ICMP and otherwise deemed appropriate by the Navy and NMFS) will be described in an updated 2010 ICMP and submitted to NMFS by October 31, 2010 for review. An updated 2010 ICMP will be finalized by December 31, 2010. NMFS plans to solicit public comments on the updated ICMP in January, 2011 and the input will be used to inform the 2011 Monitoring Workshop, the further development of the ICMP, and,

potentially, monitoring modifications in the Navy's 2012 monitoring plans.

### Monitoring Workshop

The Navy, with guidance and support from NMFS, will convene a Monitoring Workshop, including marine mammal and acoustic experts as well as other interested parties, in 2011. The Monitoring Workshop participants will review the monitoring results from the previous monitoring pursuant to the NWTRC rule as well as monitoring results from other Navy rules and LOAs (e.g., SOCAL, HRC, etc.). The Monitoring Workshop participants would provide their individual recommendations to the Navy and NMFS on the monitoring plan(s) after also considering the current science (including Navy research and development) and working within the framework of available resources and feasibility of implementation. NMFS and the Navy would then analyze the input from the Monitoring Workshop participants and determine the best way forward from a national perspective. Subsequent to the Monitoring Workshop, modifications would be applied to monitoring plans as appropriate.

### Adaptive Management

Our understanding of the effects of MFAS/HFAS and explosives on marine mammals is still in its relative infancy, and yet the science in this field is evolving fairly quickly. These circumstances make the inclusion of an adaptive management component both valuable and necessary within the context of 5-year regulations for activities that have been associated with marine mammal mortality in certain circumstances and locations (though not in the NWTRC in the Navy's over 60 years of use of the area for testing and training). NMFS has included an adaptive management component in the regulations, which will allow NMFS to consider new data from different sources to determine (in coordination with the Navy) on an annual basis if mitigation or monitoring measures should be modified or added (or deleted) if new data suggests that such modifications are appropriate (or are not appropriate) for subsequent annual LOAs.

The following are some of the possible sources of applicable data:

- Results from the Navy's monitoring from the previous year (either from NWTRC or other locations).
- Findings of the Workshop that the Navy will convene in 2011 to analyze monitoring results to date, review current science, and recommend

modifications, as appropriate to the monitoring protocols to increase monitoring effectiveness.

- Compiled results of Navy funded research and development (R&D) studies (presented pursuant to the ICMP, which is discussed elsewhere in this document).

- Results from specific stranding investigations (either from NWTRC or other locations, and involving coincident MFAS/HFAS or explosives training or not involving coincident use).

- Results from the Long Term Prospective Study described above.

- Results from general marine mammal and sound research (funded by the Navy (described above) or other agencies or entities).

- Any information that reveals that marine mammals may have been taken in a manner, extent or number not authorized by these regulations or subsequent Letters of Authorization.

Mitigation measures could be modified or added (or deleted) if new data suggests that such modifications would have (or do not have) a reasonable likelihood of accomplishing the goals of mitigation laid out in this final rule and if the measures are practicable. NMFS would also coordinate with the Navy to modify or add to (or delete) the existing monitoring requirements if the new data suggest that the addition of (or deletion of) a particular measure would more effectively accomplish the goals of monitoring laid out in this final rule. The reporting requirements associated with this final rule are designed to provide NMFS with monitoring data from the previous year to allow NMFS to consider the data and issue annual LOAs. NMFS and the Navy will meet annually, prior to LOA issuance, to discuss the monitoring reports, Navy R&D developments, and current science and whether mitigation or monitoring modifications are appropriate.

### Reporting

In order to issue an ITA for an activity, Section 101(a)(5)(A) of the MMPA states that NMFS must set forth "requirements pertaining to the monitoring and reporting of such taking." Effective reporting is critical both to compliance as well as ensuring that the most value is obtained from the required monitoring. The proposed rule contains the reporting requirements for the Navy (74 FR 33828, pages 33871–33872), and these requirements remain unchanged with the following exception. The requirements as written in the proposed rule include specific due dates for each of the reports. NMFS

and the Navy are coordinating a workload plan to determine the best times during every year to submit all of the reports that the Navy is responsible for under final rules for multiple Range Complexes and training exercises. Although the reports described will always be submitted every year at a time that allows for adequate analysis by NMFS prior to the issuance of the subsequent LOA, we want to allow flexibility to change those dates yearly. Therefore, the regulatory text below will not specify the specific dates that the reports are due, as the due dates will be specified in the annual LOA.

### Comments and Responses

On July 13, 2009 (74 FR 33828), NMFS published a proposed rule in response to the Navy's request to take marine mammals incidental to military readiness training in the NWTRC and requested comments, information and suggestions concerning the proposed rule. During the 30-day public comment period, NMFS received comments from the Marine Mammal Commission, the Washington Department of Fish and Wildlife, the Department of the Interior, the Natural Resources Defense Council (on behalf of the International Fund for Animal Welfare, the Center for Biological Diversity, Cetacean Society International, Friends of the San Juans, the Humane Society of the United States, the Ocean Futures Society, the Ocean Mammal Institute, People for Puget sound, Davis Bain, and Jean-Michel Cousteau), the Orca Network, The Whale Museum, Turtle Island Restoration Network (TIRN) and Center for Biological Diversity (CBD), as well as over two hundred members of the public. The NRDC gained support for their comments from over 54,000 members through form letters.

### Introduction

As described elsewhere in this document, in order to issue an incidental take authorization (ITA) under Section 101(a)(5)(A) of the MMPA, NMFS must set forth the "permissible methods of taking pursuant to such activity, and other means of effecting the least practicable adverse impact on such species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance." NMFS' decisions regarding whether or not to require any particular mitigation measure must include a careful balancing of the likely benefit of any particular measure to marine mammals and the likely effectiveness of the measure, with the practicability of the measure, which (for military readiness activities) includes

consideration of the likely effect of that measure on personnel safety, practicality of implementation, and impact on the effectiveness of the "military-readiness activity."

Because some of the comments received reflect an incomplete or inaccurate understanding of the nature and scope of the Navy's MFAS training exercises, we will summarize and clarify some issues up front that will support multiple responses below. For example, one commenter begins by stating that the Navy contemplates extensive sonar training. This is not the case. In the NWTRC, the annual amount of planned operation for the most powerful surface hull-mounted MFAS (which is responsible for the vast majority of the takes) is 108 hours annually. Comparatively, the annual sonar use in other areas that the Navy uses for training is far more extensive: 1670 hrs/yr in Hawaii, 2400 in the Mariana Islands, 2470 in SOCAL, and 5110 off the Atlantic Coast. Another significant difference is the fact that all of the sonar exercises in the NWTRC are approximately 1.5-hr exercises that utilize a single surface hull-mounted sonar, versus the major exercises within other training areas, which may last for several weeks, and use multiple (sometimes 10 or more) surface hull-mounted sonars simultaneously.

Another point that is germane to several of the comments raised is the typical way that the MFAS exercises utilizing surface hull-mounted sonar (TRACKEXs) are conducted, and the areas in which they are typically conducted. Approximately 10 percent of the surface hull-mounted MFAS is conducted in conjunction with the use of the Portable Undersea Training Range (PUTR), while the remaining 90 percent is conducted primarily in-transit as the vessel is moving from one point to another, most often south through the NWTRC towards the Southern California Range Complex. The majority of the in-transit MFAS use in the NWTRC has taken place and is projected to continue to take place at a distance of 50 nm or greater from shore, with infrequent training events occurring between 12 and 50 nm from shore. In-transit MFAS training is not anticipated to occur inside of 12 nm.

The PUTR has been developed to support ASW training in areas where the ocean depth is between 300 ft and 12,000 ft and at least 3 nm from land. The PUTR will not be utilized within the Olympic Coast National Marine Sanctuary (OCNMS).

In addition, the Navy provided funding to NMFS's Southwest Fisheries Science Center (SWFSC) in the fall of

2009, to update their newest spatial predictive habitat model with composite data from 1991 through 2008, the date of the last U.S. West Coast marine mammal survey. In the spring of 2010, SWFSC completed this analysis which provides finer scale (25-km) density resolution for 12 of the most commonly sighted species within the U.S. West Coast EEZ including NWTRC. Results of this effort will be published in a NMFS Technical Report.

From 2009 through 2010, marine mammal satellite tracking tag studies funded by the Navy in Southern California show that static plots of marine mammal occurrence do not provide the entire story on marine mammal life history. Tagged baleen whales and dolphins within Southern California quite frequently move significant distances. As part of the Navy's NWTRC Monitoring Plan, presence/absence data will be collected via offshore long-term passive acoustic monitoring devices from Scripps Institute of Oceanography, as well as marine mammal satellite tagging.

In summary, the Navy, as part of its NWTRC Monitoring Plan will continue to contribute valuable scientific data in collaborating with regional and national scientific academic partners as to marine mammal distributions within the NWTRC.

Last, for the second year in a row, the Navy is convening a workshop in October to which marine mammal experts have been invited. The Navy will review its monitoring results from the previous year and solicit recommendations on future plans. More formally, the Navy has been required by multiple LOAs to hold a Monitoring Workshop in 2011 that will include both marine mammal experts and non-governmental organizations. Here, again, the Navy will provide a review of previous monitoring results from multiple range complexes and solicit input. The goal of the 2011 workshop, as laid out in the Integrated Comprehensive Monitoring Program Plan, is to comprehensively consider the resources available in different ranges, the data needs, and the species and conditions present in different ranges in order to identify the most appropriate monitoring across range complexes that will provide the most efficient methodology and best results.

#### *Additional Mitigation Recommendations*

*Comment 1:* NRDC and other commenters recommended the establishment of a panel of marine mammal and oceanographic experts with regional expertise on marine

mammal distribution, abundance, habitat, or population structure and ecology, or habitat suitability modeling to identify high-value habitat by reviewing and analyzing the published literature, survey data, and predictive models. The use of sonar in such habitat would be prohibited or subject to additional operational measures to ensure the greatest protection of animals in the area.

*Response:* In January 2009, the Administrator of the National Oceanic and Atmospheric Administration committed, in a letter to the Council on Environmental Quality, to convene a panel to identify important marine mammal habitat, as described above. This process has begun. Once the results of that effort are available (anticipated in 2011), NMFS will use them to inform decisions related to geographic mitigation requirements, both in upcoming rules, as well as in rules that have already been issued, through the adaptive management provision (described in the Adaptive Management section above).

*Comment 2:* NRDC and several other commenters recommended that NMFS establish a protection area for northwest harbor porpoise populations landward of the 100-m isobath. Further, they recommended that NMFS establish an adjacent buffer zone to ensure that exposure levels do not exceed 120dB within the 100-m isobath. NMFS should ask the Navy to prepare a nominal propagation analysis for the coast to determine what stand-off distances are necessary to reduce exposures below the 120dB threshold. The NRDC further notes that the vast majority of the takes in the NWTRC are harbor porpoises.

*Response:* The Navy conducts about 99 percent of their MFAS activities in the W-237 area, which extends out approximately 200 nm from the coast of the northern half of Washington state (see page 2-5 of the Navy's NWTRC FEIS). Within the W-237, the 100-m isobath extends out from the coast approximately 40 nm at some points, and up to 80 nm in the northern portion near the Strait of Juan de Fuca. As noted above in the introduction to this section, the Navy has conducted, and plans to conduct, the majority of their in-transit MFAS activities beyond 50 nm from shore, and has operated MFAS between 12 and 50 nm from shore infrequently in the past. As mentioned above, the PUTR (with which approximately 10 percent of the MFAS activities are associated) is designed to be used in depths of 300-1200 ft, so it is unlikely that it will be used within the 100-m isobath. Based on this general operational plan, there is only a

relatively small area within the 100-m isobath in which the Navy would potentially operate MFAS, and this is only a very small percentage of the entire W-237 area that is available and in which the Navy typically operates MFAS. In order to adequately train, however, the Navy needs to train within a wide range of bathymetric conditions, environmental conditions, and operational conditions (i.e., proximity to certain resources such as airfields), so it is unlikely that they would completely avoid the 100-m isobath.

In short, based on their general operating plans, the overall size of the area available for training and the fact that they only plan to operate 108 hours of surface hull-mounted sonar total annually (but need to operate in a variety of conditions, including depths other than within the 100-m isobath), it is likely that only a relatively small subset of the 108 hours of MFAS will be operated within the 100-m isobath, but these hours are needed for operational flexibility.

Regarding the establishment of an additional buffer to ensure that the area within the 100-m isobath is not ensonified above 120 dB, the Navy has done a propagation analysis and the distance at which sound from a surface hull-mounted sonar attenuates to 120 dB in the NWTRC is approximately 70 nm. A buffer of this nature would extend out approximately 110-150 nm from shore, rendering about 60-70 percent of the available MFAS training area inaccessible and reducing access to the vast majority of the bathymetric relief that is necessary for effective training. (NMFS notes that 120 dB is the minimum received level at which we have estimated that harbor porpoises may be taken by behavioral (Level B) harassment, and avoiding exposure above this level is akin to avoiding take completely, which would negate the need for an incidental take authorization.)

Last, NRDC notes that the vast majority of the total takes in the NWTRC are of harbor porpoises. This is correct; of the approximately 130,000 total annual authorized takes in the NWTRC, 119,000 are of harbor porpoises. This is because harbor porpoises are considered more sensitive to sound than many other marine mammals and any exposure above a received level of 120 dB is considered a take. However, of the total harbor porpoise takes, approximately 85 percent are anticipated to occur at a received level between 120 and 140 dB, from which we would expect a comparatively less severe response. Additionally, only approximately 0.5 percent of these takes

would result from exposures above a received level of 160 dB, which is still far below received levels associated with injurious takes. In short, there are more takes of harbor porpoises because they are more sensitive to sound. However, because we use a step function to define their predicted response, instead of a dose curve as we do for other marine mammal species, a large portion of the takes will likely consist of the minimum response that we would still consider a take.

*Comment 3:* NRDC and several other commenters recommended that NMFS provide additional protection for marine mammals from the use of sonar within the OCNMS, by specifically prohibiting sonar usage in the OCNMS, or at a minimum, limiting the exercises taking place with the OCNMS by requiring final approval from the Pacific Fleet command, or using other means to minimize sonar use. In support of this recommendation, NRDC notes the seasonal use of the area by migrating gray whales, summer resident gray whales that use the area for feeding, and Southern Resident killer whales (SRKW) that use the area for part of the year.

*Response:* The OCNMS is contained within the NWTRC and the delineation of the edge of the OCNMS essentially follows the 100-m isobath. The Navy will not deploy the PUTR within the OCNMS. Otherwise, please see NMFS' response to comment 2, above. Of additional note, because of the seasonal nature of the use of the area by some of the species that the commenters mention, those species' potential exposure to MFAS is likely an even smaller proportion of the total hours, as some of the hours of operation will occur in months that they are not present.

Although the comment addressed here mentions only sonar training, it is worth noting that the Navy does not do any live bombing in the OCNMS waters (*i.e.*, BOMBEX and SINKEXs are conducted outside the limits of the OCNMS). Additionally, in their DEIS, the Navy indicated their intent to create a small underwater minefield training range. Although they did not specify it in the DEIS, they have since clarified the fact that this small range will not be in OCNMS waters.

*Comment 4:* NRDC and several other commenters recommended that NMFS identify the Greater Puget Sound as a protection area (except for activities occurring as part of the Keyport EIS) as a condition of the proposed rule. They further recommended that if Puget Sound is not designated as a protected area, NMFS should make the following clarifications in its final rule:

- That any use of MFA sonar for training or maintenance in the Greater Puget Sound would first require the Navy to obtain an incidental take permit given the potential for serious injury or mortality to marine mammals in the area;

- That the Navy has agreed to conduct neither sonar training nor maintenance activities in the Greater Puget Sound without MMPA authorization;

- That the Navy has internal checks, in addition to the MMPA requirement, on non-RDT&E sonar use in the Greater Puget Sound (*e.g.*, requiring approval from Fleet Command).

*Response:* The Navy's action does not include the use of MFAS for training or in-transit maintenance in the Greater Puget Sound area, so it is not necessary to designate the Greater Puget Sound area as a Protection Area. The Navy does not currently plan to use MFAS for training or in-transit maintenance in the Greater Puget Sound area, and they have committed to obtaining a separate LOA (which would require a new rulemaking) if they plan to conduct those activities in the Greater Puget Sound area.

Additionally, the Navy has in place, and has since June 2003, an internal requirement wherein they must obtain permission from the Commander Pacific Fleet (CPF) before they may operate MFAS for training, maintenance or testing in Puget Sound. Since 2003, it has been CPF policy to not approve training, maintenance or testing use of sonar systems for vessels underway within Puget Sound. Pierside maintenance/testing of sonar systems within Puget Sound still requires CPF approval, and may be approved by CPF if it is not practical or feasible to conduct alternate maintenance/testing outside of Puget Sound. Since this requirement was put into place, every request to use MFAS underway for training, maintenance, or testing in Puget Sound has been denied, except on the Nanoose Range.

Separately, pier-side maintenance was not included as part of the proposed action, either for the MMPA authorization, or in the Navy's EIS. Pierside maintenance and testing of sonars rarely involves emission of sound. Most often the source is out of the water and might emit only one or a few low amplitude pings. The Navy is currently compiling detailed information on all pierside testing activity nationwide and that information will be included in the next phase of environmental assessments in 2014. At this time the Navy does not anticipate that there will be any

additional risk to marine mammals from pierside testing due to the infrequency of sound emissions and the relative rarity of marine mammals in the vicinity of these sites.

*Comment 5:* NRDC and several other commenters recommended that NMFS establish a seasonal protection area in certain canyons and banks on the NWTRC that represent important foraging habitat, particularly for humpback whales. NRDC recommends seasonal protection areas for the "Prairie," Juan de Fuca Canyon, Swiftsure Bank, Barkley and Nitinat Canyons, and Heceta Bank, during the main humpback whale feeding season from June to October.

*Response:* With respect to some of these specific areas, the Swiftsure Bank is well within 50 nm of shore, and as described above, it is unlikely that the Navy will utilize in-transit MFAS there. Additionally, Swiftsure Bank is within the 100-m isobaths, which is not where the PUTR is designed to be used, and partially within the OCNMS, where the PUTR will not be used. Heceta Bank is located off the shore of Oregon, and 99 percent of the Navy's MFAS use in the NWTRC is conducted within the W-237 area, which is located off the coast of Washington, so MFAS use is not likely to occur there. Additionally, the Prairie is an area that is less than 100 m deep, so the PUTR is not likely to be deployed there.

The Navy plans to conduct approximately 108 hours of surface hull-mounted MFAS use in the NWTRC annually. Allowing for the fact that it is not all planned in the months of June-October, and not all planned in any one of the specific areas noted in the comment, only a small number of hours of sonar is likely to occur in any of the specific areas recommended for protection by the commenters.

Generally speaking, because of the small number of hours that the Navy may be conducting MFAS sonar training, the short duration of the exercises, the use of only one single hull-mounted sonar vessel, and the huge area over which training is conducted, the impracticability of designating additional protective areas identified by the commenters outweighs the likely benefits. It requires a considerable amount of planning, education, and subsequent attention by the Navy to establish and implement protective areas. Furthermore, the Navy only anticipates taking a small number of the species for which the protected areas would be established, by Level B Harassment (15 humpback whales, 14 killer whales, and 4 gray whales), with the exception of harbor porpoises

(discussed in comment response 2). Considering the density of marine mammals and the likelihood of encountering them in any location during the course of a 1.5 hour period, we cannot predict with sufficient certainty that avoiding these areas would necessarily result in a decrease of takes.

In addition, as mentioned previously, the Navy's NWTRC Monitoring Plan entails deploying long-term passive acoustic monitoring devices at two locations within the offshore NWTRC. One such Navy funded device has been in operation near Quinault Canyon since 2004. This will be supplemented with a second device which is currently forecast for deployment near the Juan de Fuca Canyon. Information from both passive acoustic devices will provide valuable scientific data on marine mammal vocalizations and anthropogenic sounds including commercial ship noise or transitory MFAS at these two locations. This analytical approach continues to be refined based on lessons learned from similar deployments and data review in Hawaii and Southern California. Summary data from these devices will be provided to NMFS and the public via annual Navy monitoring reports.

*Comment 6:* The NRDC and several other commenters recommended that NMFS require avoidance of, or a reduction of training activity within, areas between 500 and 2,000 meters depth with unusual bottom topography (such as canyons), to provide additional protection to beaked whales.

*Response:* The NRDC notes in their comments that there are no particular areas of known concentration for beaked whales in the NWTRC, but that most species appear to have a preference for areas of the lower continental slope. They may also be found in a wider range of conditions, from slopes to abyssal plain. First, NMFS may consider requiring a geographic limitation on an activity in a specific area of known concentration of particular species of animals, if the practicability analysis (which includes consideration of the nature of the activity, the likely benefits to the species, and the practicability of the measure) suggests that it will accomplish the least practicable adverse impact. However, we are less likely to recommend the avoidance of all of a type of area that an animal has a general preference for, especially in a case like this where the activity is comparatively limited, because it is unclear whether avoidance of all of the areas of this type will result in the reduction of impacts to the animals.

More specifically, in the case of beaked whales, we are only authorizing the Level B take of 38 animals, so there is only a very limited potential benefit to making a huge tract of area unavailable for training. Further, as noted above, beaked whales may prefer a wider variety of areas than previously thought. In summary, only a portion of the already few hours of planned MFAS use will occur in this habitat, and it is impracticable to completely prohibit the Navy's access to this particular depth when they need to train in a wide variety of circumstances.

*Comment 7:* The MMC recommended that the rule require suspension of the Navy's activities if a marine mammal is seriously injured or killed and the injury or death could be associated with those activities. The injury or death should be investigated to determine the cause, assess the full impact of the activity or activities and determine how activities should be modified to avoid future injuries or deaths.

*Response:* NMFS' regulations include a provision for "General notification of injured or dead marine mammals," under which Navy personnel shall ensure that NMFS is notified immediately (or as soon as clearance procedures allow) if an injured, stranded, or dead marine mammal is found during or shortly after, and in the vicinity of, any Navy training exercise utilizing MFAS, HFAS, or underwater explosive detonations. The provision further requires the Navy to provide NMFS with species or description of the animal(s), the condition of the animal(s) (including carcass condition if the animal is dead), location, time of first discovery, observed behaviors (if alive), and photo or video of the animals (if available).

It can take months to years to complete the necessary tests and analyses required to determine, with a reasonable amount of certainty, the cause of a marine mammal death—and sometimes it is not possible to determine it. All but one of the small number of strandings that have occurred around the world associated with MFAS exercises have occurred concurrent to exercises that would be considered "major", which typically involve multiple surface vessels and last for a much longer duration than the non-major exercises that occur in the NWTRC (as described above in the Introduction to this section). Hence, NMFS (with input from the Navy) determined that it was beneficial and practicable to preemptively outline an explicit plan (that includes a shutdown requirement in certain circumstances) for how to deal with a stranding that

occurs during a major exercise, and therefore Stranding Response Plans were developed for all of the areas in which major exercises are conducted. Alternatively, for non-major exercises (including all of the exercises in the NWTRC), the general notification provisions apply, which means that the Navy would contact NMFS as soon as clearance procedures allow and we would determine how best to proceed at that time.

Because so few strandings have been definitively associated with MFAS training in the 60+ years that the U.S. and other countries that share information have been conducting MFAS training; the exercises conducted in the NWTRC are of short duration and involve only one surface hull-mounted sonar; and investigations take a long time and are not always conclusive, it is not reasonable or practicable to require the Navy to shut down every time an injured or dead animal is found in the vicinity pending the results of an investigation that could take years to conduct.

*Comment 8:* One commenter recommended that MFAS not be utilized off the coast of California from June through October to protect seasonal migration of blue and humpback whales.

*Response:* The Navy plans to conduct 99 percent of their MFAS operation (which consists of 108 hours of surface hull-mounted sonar) within the W-237 area, which is located off the coast of Washington. This means that MFAS would be operated for only a few hours annually off the coast of California, at most.

*Comment 9:* One commenter recommended that the Navy avoid operating MFAS within 300 nm of the OCNMS.

*Response:* A three hundred mile buffer around the OCNMS would entirely encompass the NWTRC, thereby preventing the Navy from conducting the proposed activity, which is not a practicable option under the MMPA.

*Comment 10:* One commenter noted that there is no reference to the Navy going to the aid of stranded animals.

*Response:* NMFS, as the agency with authority over marine mammal health and stranding, does not want Navy personnel or other untrained and unpermitted individuals going to the aid of stranded animals. Rather, as described in the response to comment 7, above, the Navy is required to notify NMFS if they encounter an injured, stranded, or dead animal, and NMFS will respond as appropriate.

*Comment 11:* One commenter recommended that we correct the

statement “Southern resident killer whales spend the majority of their time in the Inshore Area from May/June through October/November, although they do make multi-day trips to the outer coast,” to say “mid-June through September.” The commenter further recommended that the Navy’s sonar activity be limited to the summer period and when SRKW’s have been located well within the Inshore Area (e.g. greater than ~30 nautical miles east of Cape Flattery for sonar activities lasting less than 6 hours) by the listening network (Salish Sea hydrophone network—<http://orcasound.net>) and/or sighting networks (The Whale Museum, whale watch operators, Orca Network, Center for Whale Research, etc.).

*Response:* The months originally indicated are taken from NMFS’ Southern Resident Killer Whale Recovery Plan. The commenter did not offer a citation to support the alternate months suggested and, therefore, NMFS declines to make the suggested change. Killer whales are rarely seen outside of Puget Sound, and the Navy’s model predicts that only 14 whales will be taken by Level B Harassment annually. Further, killer whales have a comparatively high probability of detection (Barlow, 2003a; Forney *et al.*, 1995) and there is little doubt that they will be detected and MFAS shutdown before they can be exposed to received levels that might be associated with more severe behavioral responses or hearing sensitivity loss.

Considering the low likelihood of impacts to killer whales from sonar in the absence of the additional limitations recommended by the commenter, combined with the resources and effort that would be necessary to maintain a running knowledge of the location of the killer whale pods, NMFS is not requiring that the Navy implement the recommended measure.

*Comment 12:* One commenter believes that the Navy should restrict its training operations to instrumented ranges with acoustic systems that allow real-time monitoring and mitigation for marine mammals, such as the one it operates off southern California. Acoustic ranges apparently work well for detecting baleen whales and may be the only effective way to detect and monitor beaked whales, but may not be as effective for species (e.g., some porpoises) that vocalize at very high frequencies. The Navy should consider developing such a range in the Pacific Northwest.

*Response:* The Navy has several instrumented ranges (Bahamas, Southern California, and Hawaii) and plans to install another off of

Jacksonville, Florida. These ranges are used regularly in Navy marine mammal research and monitoring, and have greatly contributed to marine mammal distribution and abundance data in these areas, as well as our understanding of behavioral responses to MFAS. However, they are not used for real-time implementation of mitigation (see Navy DEIS at 5–29).

Because of the need to train in a variety of operational situations (*i.e.*, proximity to different Navy resources) and bathymetric/oceanographic conditions, as well as the need to conduct a large volume of training, the Navy cannot limit its training to areas with instrumented ranges. Additionally, the conservation value of such a limitation is unclear, as it would focus a greater volume of MFAS use in areas that also have high densities of marine mammals and in some cases near areas considered particularly important to marine mammals.

Last, MFAS training occurs in relatively low amounts annually in the NWTRC and an instrumented range is not currently needed or being considered.

*Comment 13:* One commenter questioned why dolphins or porpoises that “deliberately” ride Navy ships’ bow waves are not entitled to any protections.

*Response:* The mitigation measure indicates that “[i]f, after conducting an initial maneuver to avoid close quarters with dolphins or porpoises, the OOD concludes that dolphins or porpoises are deliberately closing to ride the vessel’s bow wave, no further mitigation actions are necessary while the dolphins or porpoises continue to exhibit bow wave riding behavior.” Navy personnel first try and avoid the bow-riding dolphins, and if that does not work, they may continue without further mitigation. Bow-riding is a common occurrence with certain species, and shutting down MFAS as frequently as these animals are encountered would seriously impact the Navy’s mission effectiveness. The proposed rule described the potential impacts from this difference in mitigation (74 FR 33868), which is primarily that a temporary loss of hearing sensitivity is more likely to be incurred by these species than others, but still of a relatively brief and mild nature, and NMFS was still able to make its negligible impact determination for these species.

*Comment 14:* One commenter recommended that NOAA ensure that as noise levels are ramped up, cetaceans are not herded by the noise into progressively shallower and shallower

water where they may strand as beaked whales did in the Bahamas (2000) during Navy exercises.

*Response:* Although the Navy does not utilize a ramp-up strategy for their sound sources, there is no scenario in the Navy’s action under which animals would be herded into shallower water. The Navy is not conducting any MFAS training within the Greater Puget Sound area and MFAS use of the Washington Coast is primarily farther than 50 nm from shore, with infrequent occurrences between 12 and 50 nm from shore.

#### Mitigation Effectiveness

*Comment 15:* The MMC and several other commenters recommended that NMFS require the Navy to develop and implement a plan to validate the effectiveness of monitoring and mitigation measures before beginning, or in conjunction with, the proposed military readiness training operations. The MMC further notes that NMFS appears to have concurred with the Navy that the Navy’s mitigation efforts will reduce Level A takes to 0 and that the proposed mitigation measures are sufficient.

*Response:* First, in response to the second sentence above, the Navy has estimated, through their modeling efforts, the numbers of animals that will be exposed to levels of sound or pressure that would be thought to result in Level A take (either through a permanent loss of hearing sensitivity from noise exposure, or tissue damage from exposure to explosives) in the absence of any mitigation. Those are the numbers of Level A takes that they have requested and NMFS is authorizing. Hence, although NMFS believes that the Navy’s mitigation will most likely be effective at avoiding exposure to these levels (which, in the case of MFAS occur within 10m of the vessel), and that many animals will avoid noises at the levels necessary to incur a permanent hearing sensitivity loss, we are still authorizing the Level A take of 13 individuals of 9 species.

Marine mammal researchers have developed detection probabilities that estimate the likelihood of detecting individuals of different species of marine mammals from different platforms, in different environmental conditions, and at different distances. As part of their Monitoring Plans in other areas where training occurs, the Navy has developed studies to determine how well their watchstanders detect marine mammals as compared to experienced marine mammal observers. Four of these comparison studies have been conducted by the Navy this year pursuant to the requirements of their



LOAs for HRC, SOCAL, and AFAST and when the results of these studies have been fully analyzed, they will be included in NMFS analysis of the likelihood of Level A takes occurring. In the meantime, we have conservatively assumed that the mitigation is not effective and that animals will be taken by Level A Harassment as predicted by the model, which assumes that animals do not move away from a strong sound source and that exposure at a high level will never be avoided through detection and implementation of a shutdown (or non-startup).

If there are other studies that the MMC has in mind to quantify mitigation and monitoring effectiveness, we would welcome specific recommendations. Additionally, the Navy is required to hold a Monitoring Workshop in 2011 (at which MMC representatives will hopefully be present) and the discussions at that workshop are intended to inform potential modifications to the Navy's existing monitoring plans, if appropriate, as they pursue a more comprehensive plan that best utilizes the resources in each area to gather the data that is most needed and can most effectively be gathered in a particular geographic area.

*Comment 16:* Several commenters suggested that the Navy's primary method of reducing harm to marine mammals, powering down or securing sonar, is not effective. They indicated that it is hard to sight whales on fast-moving ships, especially beaked whales, and especially in certain conditions). They further suggested that time/area closures are a more effective form of mitigation.

*Response:* While few mitigation measures are 100 percent effective, the Navy's powerdown and shutdown strategy is likely effective at avoiding exposure to injurious levels of sound, and does succeed in reducing exposures of marine mammals (to varying degrees, depending on the species and environmental conditions) to higher levels of sound that might be associated with more severe behavioral responses. The Mitigation Conclusion section of the proposed rule describes our least practicable adverse impact analysis (74 FR 33867).

NMFS agrees that geographic mitigation can be an effective tool for reducing impacts to marine mammals in certain circumstances. However, we have evaluated the potential areas recommended for marine mammal protection in the NWTRC and the impracticability of the recommended measures outweighed the likely benefit to the species.

*Comment 17:* To protect the Southern Residents, NOAA should insist that the Navy not operate SONARs or set off explosions for any purposes short of war, unless they know that orcas are not within a distance where they would be killed, injured or caused to panic.

*Response:* The Navy is currently required to implement MFAS and explosive powerdown and shutdown requirements, which, considering the high probability of detection of killer whales, should ensure that killer whales do not approach within a distance where they would be injured or killed. It is hard to know exactly what might cause a killer whale to panic, but the circumstances in which this behavior has previously been observed in killer whales in response to MFAS in this area are no longer likely to occur in the NWTRC, as no MFAS is operated within the Greater Puget Sound area and sonar is predominantly operated over 50 nm off-shore.

*Comment 18:* NOAA should initiate studies independent of the Navy in order to determine if mitigation measures in other range complexes are working. If the measures are not working no future permits should be allowed until such time as alternative mitigation measures are proposed and tested. NOAA should also prepare to conduct studies, independent of Navy influence, in all Navy range complexes prior to issuing a permit for NWTRC.

*Response:* NOAA has a duty to use the best available data to conduct our analyses and make our determinations. To assess the likely success of monitoring and mitigation measures, we consider available literature and examples of previous mitigation implementation and monitoring reports. We also require that the Navy submit multiple monitoring and reporting results annually for each range complex and that the Navy compile this information in a comprehensive manner for an annual adaptive management meeting. This meeting is used in coordination with the adaptive management components of the Navy rules, which provide a mechanism for mitigation or monitoring measures to be modified, as appropriate, based on new information.

The MMPA does not require that NOAA initiate independent studies to determine if different mitigation measures are effective, nor do we always have the resources to do so, and nor is it necessary when information is available through other means. However, NOAA supports these efforts when feasible, and as noted in the introduction, in January 2009, NOAA committed to convene a workshop to

identify cetacean hotspots and the information generated from that workshop will be used to inform management decisions, such as the development of geographic mitigation measures.

Finally, most of the Navy funded range complex monitoring is conducted by qualified academic and scientific organizations. Information from these researchers is presented to NMFS and the public in annual monitoring reports, and these researchers have a long history of unbiased, successful scientific publication based on these studies. This kind of peer-review presentation of scientific results will continue based on monitoring efforts in the NWTRC and other Navy range complexes.

### Impact Assessment

*Comment 19:* The MMC recommended that NMFS require the Navy to conduct an external peer review of its marine mammal density estimates, the data upon which those estimates are based, and the manner in which those data are being used.

*Response:* Both NMFS and the Navy use peer-reviewed science whenever it is available and applicable, and NMFS has encouraged the Navy to get the models they use and data they gather peer-reviewed. However, neither the NEPA, the MMPA, nor the ESA require that data or calculations used in the analyses pursuant to these statutes be peer-reviewed prior to making a decision. Rather, NMFS and the Navy are required to use the best available science to inform our analyses.

In the context of the Navy's NWTRC EIS/OEIS and LOA application, the marine mammal densities used in the Navy's impact analysis were derived from estimates directly provided by NMFS's Southwest Fisheries Science Center (SWFSC). As mentioned in a previous comment response, SWFSC continues to refine and improve this density estimation process.

Also, while it is not the same as a peer review, both the NEPA and MMPA processes include a comment period in which the public can specifically recommend better ways to use the data to estimate density, and which the Navy and NMFS would need to address.

Further, the Navy is developing a new systematic framework (that includes a hierarchy of preferred methodologies based on the data available in an area) to estimate density in the analyses for the rule renewals that will follow the expiration of the MMPA rules for Navy training issued in 2009, 2010, and 2011 (i.e., rules that would, if appropriate, be issued in 2014 and later). The Navy has indicated that they may pursue a peer



review of this framework and NMFS has encouraged them to do so.

*Comment 20:* NRDC included a copy of their comments on the Navy's EIS and suggested that some of those comments also pertained to the MMPA authorization. Other commenters mirrored several of the recommendations that NRDC made in these comments.

*Response:* NMFS has addressed the issues that apply to our issuance of the MMPA authorization below:

(1) Additional Mitigation—NRDC recommends a suite of additional mitigation measures for the Navy to consider to protect various resources, including marine mammals. NMFS and the Navy have previously discussed either the specific measures listed in NRDC's comments on the Navy's EIS, or the general class of mitigation contemplated and have developed a section for the EIS that discusses the benefits of the proposed measure to marine mammals, the likely effectiveness of the measure, and the practicability of the measure for Navy implementation. Section 5.2.1.5 (begin page 5–23) of the NWTRC EIS, entitled Alternative Mitigation Measures Considered But Eliminated, explains why these measures are not included in NMFS MMPA regulations and NMFS refers readers to that document.

(2) Dr. Bain's Critique of Risk Function—NRDC includes a comprehensive critique of the risk function that the Navy (and NMFS) uses to calculate takes. NMFS responded to Dr. Bain's comments in the Atlantic Fleet Active Sonar Training final rule (74 FR 4865) and refers readers to that document.

*Comment 21:* One commenter suggests that it would be premature for NMFS to issue a take permit to the Navy until NOAA conducts an independent review of the adequacy of the Navy's proposed mitigation for the use of sonar.

*Response:* Pursuant to Section 101(a)(5)(A) of the MMPA, NMFS has the responsibility of ensuring that any incidental take authorization regulations set forth the means of effecting the least practicable impact, which requires a review of the proposed mitigation measures in the context of the benefit to the species, the likely effectiveness of the measure, and the practicability of the measure for implementation. The rationale behind our finding of least practicable adverse impact was spelled out in the Mitigation Conclusion section of the proposed rule (74 FR 33868). The MMPA does not require that NOAA conduct an independent review. However, NMFS continues to monitor the Navy's mitigation and monitoring

effectiveness by reviewing annual reports and using the adaptive management mechanism in the rule to inform decisions regarding whether mitigation or monitoring should be modified to increase their effectiveness.

*Comment 22:* One commenter questioned why the Navy was not required to have incidental take authorization for explosive ordnance activities in the in-shore region.

*Response:* As described in the proposed rule, (74 FR 33837), because of the more easily monitored inland location of the explosive ordnance disposal (EOD) ranges, the very limited use of explosives (4 individual explosions between 1.5 and 2.5 pounds) proposed annually for these Mine Countermeasure exercises, and the likely effectiveness of the mitigation (e.g., marine mammal take would only be expected if a marine mammal were exposed within less than 200 m of the detonation, and the Navy does not detonate explosives if a marine mammal is seen within 700 m), take of marine mammals is not anticipated or authorized.

*Comment 23:* A few commenters noted that NMFS should conduct additional analysis and provide stronger protection for marine mammals from Navy training vessel operations including collisions, discharges of wastewater and garbage, and emissions of air pollution and greenhouse gases. Some commenters also objected to the Navy's use of depleted uranium in some of their ordnance.

*Response:* NMFS did analyze (74 FR 33862) the potential impacts from vessel strike in the proposed rule and added a mitigation measure in the final rule to minimize the likelihood of a strike (see § 218.114(a)(1)(ii)(I)). Because of the relatively low density of Navy traffic in the NWTRC and the mitigation measures (and the fact that the Navy has not struck a whale there previously), NMFS does not believe that the vessel strike of a marine mammal is likely in the NWTRC.

The Effects on Marine Mammal Habitat section of the proposed rule considered the impacts of expendable materials and some of the chemicals associated with Navy training activities on marine mammal habitat (74 FR 33885) and determined that there would be no significant impacts to marine mammal habitat. Additionally, NMFS' Biological Opinion (page 192–195) covering the Navy's training activities in the NWTRC, as well as NMFS' issuance of an MMPA authorization, analyzed the effects of the chemicals expended by the Navy's ordnance and projectiles and

found they were unlikely to adversely impact ESA-listed marine mammals.

The Navy's NWTRC EIS addresses discharges and emissions resulting from the Navy's training activities. The Navy complies with all state and Federal requirements related to water and air quality. Based on the Navy's analysis, NMFS does not believe that wastewater or garbage discharge or emissions will result in the take of marine mammals or significantly impact marine mammal habitat adversely.

Separately, none of the surface combatant ships stationed in the Pacific Northwest, which are the ships that do the preponderance of training at sea in the Pacific Northwest, have depleted uranium rounds onboard. Subsequent to public release of the Draft EIS/OEIS, Commander Pacific Fleet directed that all Pacific Fleet ships offload all depleted uranium rounds at the earliest opportunity. This change is reflected in the Final EIS/OEIS in Section 2.4.1.1, which indicates that depleted uranium use is no longer included in the Navy's Proposed Action.

*Comment 24:* One commenter suggested that the mitigation measures with regard to Navy vessels operating at "safe speeds" to avoid collisions with marine mammals are unrealistic. There is no such thing as a safe speed due to the fact that Navy vessels do not stop, turn or slow down like small speed boats or automobiles. Thus, avoiding a collision would be impossible because it takes thousands of yards to turn a vessel or slow it down. Marine mammals surface to breathe sporadically and are not seen on the surface often enough to give enough warning time to avoid collisions.

*Response:* Avoiding collisions is difficult for large ships. However, some Navy vessels are fairly maneuverable, even at speed, and the more vigilant the watchstanders are (i.e., the earlier a whale is sighted), the more likely a collision can be avoided. Mitigation measures are intended to reduce the likelihood of ship strikes to the lowest level possible. In the case of the NWTRC, which has comparatively low Navy traffic and in which a Navy vessel has not previously struck a whale, NMFS believes that vessel strike is unlikely.

*Comment 25:* One commenter suggests that the Navy's assumption of a "uniform and stationary distribution of marine mammals," would result in gross underestimation of potential exposures in all areas, seasons, or circumstances involving aggregations of animals engaged in mating, birthing, feeding, migrating, and other common activities

that often concentrate large numbers of animals in one area.

*Response:* This statement is incorrect. Given the same total number of animals in an area (and the Navy used the best available survey information to inform their density estimates), over a long amount of time, you would encounter the same number of animals if they were evenly distributed as if they were clumped (unless you were selectively going to the places that they were clumped, which will not occur here). With a uniform distribution you would encounter marine mammals more often, but only one at a time, whereas with a clumped distribution, you would encounter them far less frequently, but in higher numbers at one time. Given a short amount of time (for example, the short duration of the MFAS activities in the NWTRC), a uniform distribution might be more likely to overestimate takes, because with a clumped distribution, you are far less likely to encounter groups of animals during the short duration of the actual exercises.

*Comment 26:* One commenter states that the proposed rule assumes that because effects were not detected over the last 60 years, they never occurred, while at the same time, the proposed rule acknowledges that no monitoring has occurred during this period.

*Response:* NMFS does not make this assumption (see 74 FR 33887–33888). The Navy has been conducting MFAS/HFAS training exercises in the NWTRC Range Complex for over 60 years. Although the Navy has not conducted monitoring specifically in conjunction with training exercises in the past, people have been collecting stranding data in the NWTRC Range Complex for approximately 30 years. We further state that although not all dead or injured animals are expected to end up on the shore (some may be eaten or float out to sea), one might expect that if marine mammals were being harmed by the Navy training exercises with any regularity, more evidence would have been detected over the 30-yr period.

*Comment 27:* If the whales do not reach Alaska because they are all disoriented from sonar, bombings, etc., does this not affect the traditional Alaskan Native hunting grounds?

*Response:* None of the species (or populations) of whales that Alaska natives currently hunt are present in the NWTRC (bowhead or beluga whales).

*Comment 28:* One commenter had the following comment: Mooney, *et al.* (2009) have just demonstrated hearing loss in porpoises exposed to U.S. Navy MFA sonar ping recordings. Loss of auditory sensitivity could be as catastrophic for SRKWs (porpoises) as

stranding. Because Navy underwater noise pollution could—in a worst case scenario—exacerbate difficulties the SRKWs may already be experiencing hearing the echolocation reflections from their rare salmonid prey (Au, 2004) due to vessel noise, the commenter has serious concerns about the proposed rule, and particularly the Killer Whale section on page 33890.

*Response:* The proposed rule discusses both the likelihood of TTS occurring as a result of MFAS exposure (unlikely due to how close an animal would need to be to the source, the tendency of many marine mammals to avoid loud sounds at some distance, and the likely success of mitigation measures, especially for highly visible killer whales) and the likely overall impact of TTS if it should occur in these circumstances (minimal, short in duration and severity because of the short duration that an animal would likely be able to remain in close proximity to the source given the moving vessel and the continued likelihood of mitigation detection). Additionally, the Navy estimated that only 14 killer whales would be exposed to levels associated with Level B Harassment and that 0 would be exposed to levels associated with TTS, assuming no mitigation. In short, because of the low hours of total MFAS use, the short duration of each exercise, the fact that it is far from shore and does not take place in Puget Sound (where killer whales are known to concentrate in certain parts of the year, and where there are bathymetric conditions that have been associated with more severe responses to MFAS), killer whales are highly unlikely to incur TTS from the MFAS exercises in the NWTRC.

*Comment 29:* One commenter suggested that NMFS made an incorrect statement in the proposed rule: “Southern resident killer whales are very vocal, making calls during all types of behavioral states.” They indicated that, on the contrary, it is well known that entire pods of SRKWs remain completely silent during the resting behavioral state.

*Response:* This is a valid correction. NMFS did not mean to imply that killer whales vocalized while they are resting. A corrected sentence would read “Southern resident killer whales are very vocal, making calls during almost all types of behavioral states.”

*Comment 30:* Several comments made comments related to the analysis of cumulative impacts. One commenter specifically suggested that NMFS consider the cumulative impacts of several specific military activities that would likely occur in the area of the

NWTRC (e.g., the Keyport expansion, and the explosives handling wharf at Naval Base Kitsap Bangor). Other commenters suggested that the Navy fails to consider the cumulative impacts of toxic chemicals on marine mammals. Another commenter suggested that the Navy has not considered the cumulative and synergistic impacts of “taking” marine mammals by exposure to MFAS from all of the Navy’s range complexes. Another commenter suggests that NMFS and the Navy assume that the entire batch of proposed Navy actions will take place in a pristine environment and do not take into account their contributions to or exacerbation of existing conditions such as global climate change, acidification of the oceans, rising ocean levels, global ocean and atmospheric pollution, warming ocean waters, increased storm activities, global extinctions, and other disasters.

*Response:* NMFS participated as a cooperating agency in the development of the Navy’s NWTRC EIS and has adopted it to support our issuance of incidental take regulations and LOAs. NMFS discussed with the Navy the specific examples the commenter raised of activities that should be included in the cumulative impact analysis and they are included, as appropriate (*i.e.*, considering the location of the activity and the anticipated impacts) in the FEIS. The FEIS contains a thorough analysis of potential cumulative effects, including pollutants and toxic chemicals. Throughout the FEIS, within the separate resource sections, the Navy addresses different ways that they will minimize adverse effects. As an agency, NMFS understands the importance of cumulative effects, and we continually look for ways to both better understand and more effectively reduce cumulative effects/impacts on marine mammals and other marine resources through implementation of our statutory authorities (Endangered Species Act (ESA), NEPA, Magnuson-Stevens Fishery Conservation and Management Act, Coastal Zone Management Act, etc.) and more directly through policy and other actions, such as the implementation of the Right Whale Ship Strike Reduction rule or the convening of the Potential Application of Vessel-Quitting Technology on Large Commercial Vessels meeting in May 2007.

Regarding the consideration of the cumulative or synergistic effects of sonar conducted in all of the Navy’s major range complexes the Navy has considered the cumulative impacts of sonar from different range complexes if they are adjacent or nearby. However, generally speaking (on the West Coast

especially), Navy range complexes are not in close proximity to one another and therefore the Navy has not considered the cumulative impacts of sonar use. Additionally, the vast majority of the impacts to marine mammals expected from sonar exposure are behavioral in nature, comparatively short in duration, and not of the type or severity that would be expected to be additive for the portion of marine mammals that might travel between range complexes.

Last, NMFS and the Navy have considered how the Navy's action interacts with global conditions, such as climate change. The NWTRC FEIS notes that recent observed changes due to global warming include shrinking glaciers, thawing permafrost, a lengthened growing season, and shifts in plant and animal ranges (Intergovernmental Panel on Climate Change 2007). Also, predictions of long-term environmental impacts due to global warming include sea level rise, changing weather patterns with increases in the severity of storms and droughts, changes to local and regional ecosystems including the potential loss of species, and a significant reduction in winter snow pack. The Cumulative Impacts chapter of the NWTRC FEIS includes a discussion of climate change, greenhouse gases and other pollutants, and how the Navy's action will contribute to these global issues. The FEIS also highlights several goals that the Secretary of the Navy has established for reducing the Navy's consumption of fossil fuels, including:

- Mandate that energy usage, efficiency, life-cycle costs and other such factors be part of the Navy's decision when acquiring new equipment or systems, as well as vendors' efficiency or energy policies.
- Cut petroleum use by half in the Navy's fleet of commercial vehicles by 2015, by phasing in new hybrid trucks to replace older ones.
- Procure half the power at Navy shore installations from alternative energy sources—including wind or solar—by 2020, and where possible, supply energy back to the grid, as the Navy does today at Naval Air Weapons Station China Lake, California.
- Reach the point that half the energy used throughout the Navy Department, including in ships, aircraft, vehicles and shore stations, comes from alternative fuel or alternative sources by 2020. Today that percentage is about 17 percent.

#### Monitoring and Reporting

*Comment 31:* One commenter suggested that it would be premature for

NMFS to issue a take permit to the Navy until the public has had a chance to review the Monitoring Plan proposed for the NWTRC.

*Response:* NMFS made the draft Monitoring Plan available on its webpage for the public to review during the public comment period.

*Comment 32:* One commenter suggests that the Navy should assist in extending underwater monitoring for marine mammal sounds to the outer coast of Washington state.

*Response:* The Navy's Monitoring Plan (<http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications>) includes the deployment, and subsequent monitoring, of two passive acoustic devices on the outer coast of Washington.

*Comment 33:* One commenter suggested that the Navy training DVD is inadequate for Navy observers.

*Response:* The primary duty of the watchstanders on Navy vessels is to detect objects in the water, estimate their distance from the ship, and identify them as any of a number of inanimate or animate objects that are significant to a Navy exercise or as a marine mammal so that the mitigation can be implemented. Navy watchstanders go through extensive training to learn these skills, and the Marine Species Awareness Training is used to augment it with some marine mammal specific information that will make them aware of some cues that they may not otherwise have learned and may contribute to their collection of slightly more accurate and descriptive information in their reports. However, watchstanders are not expected to identify marine mammals to species and they are not expected to provide in-depth behavioral or status information on marine mammals.

Alternatively, for the Monitoring Plans that the Navy develops and implements, professional biologists and scientists, with extensive marine mammal field experience, develop and conduct the data collection, and do the subsequent analysis.

*Comment 34:* NMFS has prioritized beaked whales in the Navy's proposed Monitoring Plan for the area (74 FR 33870). This prioritization should include a firm, multi-year commitment to sponsor fine-scale surveys with the aim of identifying important beaked whale habitat for avoidance.

*Response:* The Navy's current monitoring commitment includes the deployment of passive acoustic monitoring hydrophones off shore of Washington as well as tagging studies, both of which allow for a focus on beaked whales and will likely collect

valuable information. In 2011, the Navy will hold a Monitoring Workshop, in which (with expert and public input) they will be comprehensively re-evaluating their monitoring priorities and plans (see Introduction to Monitoring section, above), and may modify this plan, as appropriate.

*Comments 35:* We recommend that NMFS increase its reporting requirements for the Navy to provide information on (1) its use of mid-frequency sonar (e.g., times, locations), which would greatly assist in analyzing and understanding the impacts of this sonar on marine mammals, and (2) the locations of southern resident killer whales and other marine mammals detected during its various monitoring efforts along the west coast.

*Response:* For major MFAS training exercises (which do not occur in the NWTRC), the Navy is required to provide the times and locations of their MFAS use and the locations of the individual animals detected by their watchstanders. For non-major MFAS exercises (like those in the NWTRC), the Navy watchstanders implement the mitigation measures, but are not required to keep a written record of each animal seen because it is logistically difficult given the existing resources. Also for non-major exercises, the Navy is required to, to the extent practicable, develop and implement a method of annually reporting non-major training utilizing hull-mounted sonar that presents an annual (and seasonal, where practicable) depiction of non-major training exercises geographically across NWTRC.

The Navy also has a monitoring plan that includes the use of hydrophones to detect whale calls, and which will also utilize animal tagging. The results of the Navy's monitoring plan will be made available annually.

#### Other

*Comment 36:* Multiple commenters requested an extension on the 30-day public comment period on the MMPA proposed rule for the NWTRC. Another commenter suggested that in the future, NMFS allow 60 days for public comment on Navy training rules.

*Response:* NMFS extended the public comment period by 7 days. Of note, the public comment period for the Navy's NWTRC DEIS was extended three times and the total comment period was 105 days. NMFS is currently working with the Navy to develop scheduling plans for the next round of training activities for which the Navy plans to request incidental take authorization. NMFS intends to include 60 days for public comment on these proposed rules.

*Comment 37:* NMFS should hold back on approving marine mammal takes under the proposed MMPA rule for the NWTRC until the Presidential Ocean Policy Task Force process is complete.

*Response:* NOAA is committed to the goals of the Ocean Policy Task Force. However, the intent is not to cease conducting our required regulatory actions while the details of implementation are being worked out. Additionally, the Ocean Policy Task Force strategy does not yet contain a level of detailed information that could be applied to this specific action. The MMPA mandates that NOAA “shall issue” the incidental take authorization if we are able to make the necessary findings. When the Task Force has produced a plan containing a level of detail that is applicable to MMPA authorizations under 101(a)(5)(A), it will be applied to this program. In the interim, NOAA will continue to comply with the MMPA requirements in a timely manner.

*Comment 38:* Many commenters expressed general opposition to Navy activities and NMFS’ issuance of an MMPA authorization, citing general concerns about the health and welfare of marine mammals.

*Response:* NMFS appreciates the commenters’ concern for the marine mammals that live in the area of the Navy’s training activities. The MMPA directs NMFS to issue an incidental take authorization if certain findings can be made. NMFS has determined that the Navy’s NWTRC training activities will have a negligible impact on the affected species or stocks. Additionally, NMFS has worked with the Navy to develop mitigation measures that help minimize the impacts to marine mammals and a monitoring plan that will increase our understanding of the marine mammals in the area and their responses in the presence of marine mammals. Therefore, we are issuing the necessary governing regulations and plan to issue the requested MMPA authorization.

*Comment 39:* Several commenters recommended that the Navy share more of the information that they have access to with the public, for example:

- The Navy could make a significant contribution to the public’s understanding of the whereabouts of killer whales by providing sighting data from their bases and ships as well as including hydrophones on the oceanographic buoys and tidal energy projects they are employing in the Sound.

- The Navy could utilize their existing infrastructure to provide the public (or at least independent scientists) with the ability to listen to

the underwater soundscape on the outer coast of Washington.

- The Navy could share information about the locations of orcas with civilian agencies and organizations that seek to track the location of the orcas.

*Response:* Following are responses to the specific bullets above:

- The reporting of killer whale sightings from transitory Navy ships would be of little value, given the vast tracts of ocean traversed in which sightings would not be obtained, the logistic difficulties of getting such reports in a useable and timely manner from the ships to outside Navy organizations, and the lack of useable scientific detail in a generic report of “killer whale” (no way to know if inshore or other killer whale stock). The shore based infrastructure is not part the Navy’s LOA authorization for the NWTRC, nor is the Navy seeking MMPA authorization within inshore Washington State waters. The Navy’s offshore monitoring program which includes passive acoustic monitoring will provide more scientifically robust information as to specific killer whale stocks detected and the periodicity of those detections, a far stronger and more useful approach than individual ship sightings.

- The Navy has no real-time infrastructure in-place for offshore passive acoustic “listening”. Under the NWTRC Monitoring Plan, the Navy is proposing to deploy two of Scripps Institute of Oceanography High-frequency acoustic recording packages (HARP) within this area (<http://cetus.ucsd.edu/>). Given the distance from shore, depths of deployment (800–1000 m), and current technology limitations, there is no real-time listening available. Scripps services these devices approximately every 4–5 months to retrieve hard drives. New hard drives are inserted and the HARP re-deployed back into the ocean. The retrieved hard drive is then returned to the laboratory for analysis which can take some time to complete. Results from these deployments will however be provided to the NMFS and the public in the Navy’s annual monitoring report for the NWTRC.

- All of the Navy monitoring results and summaries for the NWTRC will be made available to the NMFS and the public via annual monitoring reports. If detected, presence/absence vocalizations from offshore stocks and inshore resident stocks of killer whales will be reported. As described in the Navy’s draft Monitoring Plan for the NWTRC, some results from the Quinault HARP do contain killer whale detections (see Oleson, E.M., J.

Calambokidis, Erin Falcone, and Greg Schorr and J.A. Hildebrand. 2009. Acoustic and visual monitoring for cetaceans along the outer Washington coast—Technical Report, July 2004–September 2008. Prepared for U.S. Navy. Naval Postgraduate School, Monterey, CA. NPS-OC-09-001. 45 pp.)

*Comment 40:* In considering the U.S. Navy’s plans to use loud sonars and to set off underwater explosions, it is imperative that NOAA be just as careful with the Navy with its fleets of generators of potentially lethal noises as NOAA is being with respect to whale watch boats and kayaks.

*Response:* The Navy requested (pursuant to the MMPA) authorization to take marine mammals during their training exercises, which utilize sonar and explosives. In order to issue the authorization and comply with section 101(a)(5)(A) of the MMPA, NOAA must make certain findings and set forth appropriate mitigation and monitoring measures, which we have done. Additionally, where ESA-listed species are affected, and where NOAA proposes to authorize take, NOAA must evaluate those impacts pursuant to the ESA in a formal consultation, make certain findings, and issue an incidental take statement, which we have done.

Alternately, in the case of whale watching boats and kayaks, those entities have not engaged in formal consultation under the ESA, nor do they have authorization under the MMPA to take marine mammals. Rather, NOAA has developed regional guidance regarding avoidance distances that are intended to completely avoid the take of killer whales. Consequently (and because the activities are completely different), the protective measures are different—the Navy is allowed to take marine mammals, but still has minimizing measures, whereas whalewatchers and kayakers have required measures to ensure that they do not take killer whales at all.

*Comment 41:* Some comments addressed the protection of resources other than marine mammals (e.g., turtles) or addressed activities other than the take authorization (e.g., the designation of critical habitat). Some comments misrepresented the information contained in the proposed rule (e.g., “NMFS should not allow the death of millions of marine mammals”).

*Response:* NMFS considered these types of comments inapplicable and does not address them further here.

#### Estimated Take of Marine Mammals

As mentioned previously, one of the main purposes of NMFS’ effects assessments is to identify the

permissible methods of taking, meaning: The nature of the take (*e.g.*, resulting from anthropogenic noise vs. from ship strike, etc.); the regulatory level of take (*i.e.*, *mortality vs. Level A or Level B Harassment*) and the amount of take. In the Potential Effects of Exposure of Marine Mammals to MFAS/HFAS and Underwater Detonations section, NMFS identified the lethal responses, physical trauma, sensory impairment (permanent and temporary threshold shifts and acoustic masking), physiological responses (particular stress responses), and behavioral responses that could potentially result from exposure to MFAS/HFAS or underwater explosive detonations. In this section, we will relate the potential effects to marine mammals from MFAS/HFAS and underwater detonation of explosives to the MMPA statutory definitions of Level A and Level B Harassment and attempt to quantify the effects that might occur from the specific training activities that the Navy is proposing in the NWTRC.

In the Estimated Take of Marine Mammals section of the proposed rule, NMFS relates the potential effects to marine mammals from MFAS/HFAS and underwater detonations (discussed in the Potential Effects of Specified Activities on Marine Mammals Section) to the MMPA regulatory definitions of Level A and Level B Harassment and quantified (estimated) the effects on marine mammals that could result from the specific activities that the Navy intends to conduct. The subsections of that analysis are discussed individually below.

#### Definition of Harassment

The Definition of Harassment section of the proposed rule contains the definitions of Level A and Level B

Harassment, and a discussion of which of the previously discussed potential effects of MFAS/HFAS or explosive detonations fall into the categories of Level A Harassment (permanent threshold shift (PTS), acoustically mediated bubble growth, behaviorally mediated bubble growth, and physical disruption of tissues resulting from explosive shock wave) or Level B Harassment (temporary threshold shift (TTS), acoustic masking and communication impairment, and behavioral disturbance rising to the level of harassment). See 74 FR 33828, pages 33872–33873. No changes have been made to the discussion contained in this section of the proposed rule.

#### Acoustic Take Criteria

In the Acoustic Take Criteria section of the proposed rule, NMFS described the development and application of the acoustic criteria for both MFAS/HFAS and explosive detonations (74 FR 33828, pages 33873–33880). No changes have been made to the discussion contained in this section of the proposed rule.

#### Estimates of Potential Marine Mammal Exposure

The proposed rule describes in detail how the Navy estimated the take that will result from their proposed activities (74 FR 33828, pages 33880–33881), which entails the following three general steps: (1) A propagation model estimates animals exposed to sources at different levels; (2) further modeling determines the number of exposures to levels indicated in criteria above (*i.e.*, number of takes); and (3) post-modeling corrections refine estimates to make them more accurate. More information regarding the models used, the assumptions used in the models, and

the process of estimating take is available in Appendix D of the Navy's DEIS for NWTRC.

Table 5, which is identical to the Table 8 in the proposed rule with a few minor corrections (including the reduction from 1 to 0 of Level A Harassment takes of blue whales and Steller sea lions), indicates the number of takes that were modeled and that are being authorized yearly incidental to the Navy's activities, with the following allowances. The Navy has carefully characterized the training activities planned for the NWTRC over the 5 years covered by these regulations; however, evolving real-world needs necessitate flexibility in annual activities, which in turn is reflected in annual variation in the potential take of marine mammals. Where it was mentioned more generally in the proposed rule, NMFS has now included language bounding this flexibility in the regulatory text (*see* § 218.112(c)). These potential annual variations were considered in the negligible impact analysis and the analysis in the proposed rule remains applicable. The new language indicates that after-action modeled annual takes (*i.e.*, based on the activities that were actually conducted and which must be provided with annual LOA applications) of any individual species may vary but will not ultimately exceed the indicated 5-year total for that species by more than 10 percent and will not exceed the indicated annual total by more than 25 percent in any given year; and that modeled total yearly take of all species combined may vary but may not exceed the combined amount indicated below in any given year by more than 10 percent.

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|                                   | Modeled Sonar Exposures to Indicated Thresholds |                    |                   | Modeled Explosive Exposures to Indicated Thresholds |     |                   |           | NMFS Final Annual Take Authorization |    |   |
|-----------------------------------|---|--------------------|-------------------|---|-----|-------------------|-----------|--------------------------------------|----|---|
| Species                           | Level B Exposures                               |                    | Level A Exposures | Level B Exposures                                   |     | Level A Exposures | Mortality |                                      |    |   |
|                                   | Risk Function                                   | TTS                |                   | Sub-TTS   | TTS |                   |           |                                      |    |   |
|                                   | Level B Harassment                              | Level A Harassment | Mortality         |   |     |                   |           |                                      |    |   |
| ESA-listed/ MMPA depleted Species |   |                    |                   |   |     |                   |           |                                      |    |   |
| Blue whale                        | 17  | 0                  | 0                 | 1   | 1   | 0                 | 0         | 19                                   | 0  | 0 |
| Fin whale                         | 123   | 2                  | 0                 | 12  | 7   | 1                 | 0         | 144                                  | 1  | 0 |
| Humpback whale                    | 15  | 0                  | 0                 | 0   | 0   | 0                 | 0         | 15                                   | 0  | 0 |
| Killer Whale                      | 14  | 0                  | 0                 | 0   | 0   | 0                 | 0         | 14                                   | 0  | 0 |
| Sei whale                         | 1   | 0                  | 0                 | 0   | 0   | 0                 | 0         | 1                                    | 0  | 0 |
| Sperm whale                       | 102   | 2                  | 0                 | 13  | 10  | 1                 | 0         | 127                                  | 1  | 0 |
| Steller Sea Lion                  | 114   | 0                  | 0                 | 3   | 3   | 0                 | 0         | 120                                  | 0  | 0 |
| Mysticetes                        |   |                    |                   |   |     |                   |           |                                      |    |   |
| Gray whale                        | 4   | 0                  | 0                 | 0   | 0   | 0                 | 0         | 4                                    | 0  | 0 |
| Minke whale                       | 9   | 0                  | 0                 | 0   | 0   | 0                 | 0         | 9                                    | 0  | 0 |
| Odontocetes                       |   |                    |                   |   |     |                   |           |                                      |    |   |
| Baird's beaked whale              | 12  | 0                  | 0                 | 1   | 0   | 0                 | 0         | 13                                   | 0  | 0 |
| Bottlenose dolphin                | 0   | 0                  | 0                 | 0   | 0   | 0                 | 0         | 0                                    | 0  | 0 |
| Cuvier's beaked whale             | 12  | 0                  | 0                 | 1   | 1   | 0                 | 0         | 14                                   | 0  | 0 |
| Dall's porpoise                   | 4,485   | 147                | 0                 | 62  | 58  | 3                 | 0         | 4752                                 | 3  | 0 |
| Dwarf/ Pygmy sperm whale          | 3   | 0                  | 0                 | 1   | 0   | 0                 | 0         | 4                                    | 0  | 0 |
| Harbor porpoise*                  | 119,215   | 45                 | 0                 | 9   | 5   | 1                 | 0         | 119274                               | 1  | 0 |
| Mesoplodon spp.                   | 14  | 0                  | 0                 | 1   | 0   | 0                 | 0         | 15                                   | 0  | 0 |
| Northern right whale dolphin      | 705   | 18                 | 0                 | 11  | 7   | 1                 | 0         | 741                                  | 1  | 0 |
| Pacific white-sided dolphin       | 537   | 23                 | 0                 | 8   | 3   | 0                 | 0         | 571                                  | 0  | 0 |
| Risso's dolphin                   | 85  | 2                  | 0                 | 9   | 4   | 0                 | 0         | 100                                  | 0  | 0 |
| Short beaked common dolphin       | 1,142   | 42                 | 0                 | 49  | 23  | 2                 | 0         | 1256                                 | 2  | 0 |
| Short-finned pilot whale          | 2   | 0                  | 0                 | 0   | 0   | 0                 | 0         | 2                                    | 0  | 0 |
| Striped dolphin                   | 38  | 1                  | 0                 | 0   | 1   | 0                 | 0         | 40                                   | 0  | 0 |
| Pinnipeds                         |   |                    |                   |   |     |                   |           |                                      |    |   |
| Northern elephant seal            | 296   | 0                  | 0                 | 53  | 29  | 2                 | 0         | 378                                  | 2  | 0 |
| Pacific harbor seal               | 294   | 290                | 1                 | 2   | 0   | 0                 | 0         | 586                                  | 1  | 0 |
| California sea lion               | 283   | 0                  | 0                 | 2   | 1   | 0                 | 0         | 286                                  | 0  | 0 |
| Northern fur seal                 | 1,296   | 1                  | 0                 | 24  | 44  | 1                 | 0         | 1365                                 | 1  | 0 |
| Total                             | 128,818   | 573                | 1                 | 262   | 197 | 12                | 0         | 129,850                              | 13 | 0 |

Table 5. Annual Navy take authorization (individual species takes may not vary by more than 25%, total takes of all species combined may not vary by more than 10%).

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#### Mortality

Evidence from five beaked whale strandings, all of which have taken place outside the NWTRC and occurred over approximately a decade, suggests that the exposure of beaked whales to MFAS in the presence of certain conditions (e.g., multiple units using active sonar, steep bathymetry, constricted channels, strong surface ducts, etc.) may result in strandings, potentially leading to mortality. Although these physical factors believed to have contributed to the likelihood of beaked whale strandings are not present, in their aggregate, in the NWTRC, scientific uncertainty exists regarding what other factors, or combination of factors, may contribute to beaked whale strandings. However, because none of the MFAS/HFAS ASW exercises conducted in the NWTRC are major exercises employing multiple surface vessels, the exercises last 1.5 hours or less, and only 65 exercises are planned (for a total of about 100 hours of surface vessel sonar operation), NMFS and the Navy believe it is highly unlikely that marine mammals would respond to these exercises in a manner that would result in a stranding.

Therefore, NMFS is not authorizing mortality.

#### Effects on Marine Mammal Habitat

NMFS' proposed rule includes a section that addresses the effects of the Navy's activities on Marine Mammal Habitat (74 FR 33828, pages 33883–33884). The analysis preliminarily concluded that the Navy's activities would have minimal effects on marine mammal habitat. No changes have been made to the discussion contained in this section of the proposed rule and NMFS has concluded there would be minimal effects on marine mammal habitat.

#### Analysis and Negligible Impact Determination

Pursuant to NMFS' regulations implementing the MMPA, an applicant is required to estimate the number of animals that will be "taken" by the specified activities (i.e., takes by harassment only, or takes by harassment, injury, and/or death). This estimate informs the analysis that NMFS must perform to determine whether the activity will have a "negligible impact" on the affected species or stock. Level B (behavioral) Harassment occurs at the level of the individual(s) and does not assume any resulting population-level

consequences, though there are known avenues through which behavioral disturbance of individuals can result in population-level effects (for example: Pink-footed geese (*Anser brachyrhynchus*) in undisturbed habitat gained body mass and had about a 46-percent reproductive success compared with geese in disturbed habitat (being consistently scared off the fields on which they were foraging) which did not gain mass and had a 17-percent reproductive success). A negligible impact finding is based on the lack of likely adverse effects on annual rates of recruitment or survival (i.e., population-level effects). An estimate of the number of Level B Harassment takes, alone, is not enough information on which to base an impact determination. In addition to considering estimates of the number of marine mammals that might be "taken" through behavioral harassment, NMFS must consider other factors, such as the likely nature of any responses (their intensity, duration, etc.), the context of any responses (critical reproductive time or location, migration, etc.), as well as the number and nature of estimated Level A takes, the number of estimated mortalities, and effects on habitat. Generally speaking, and especially with other factors being

equal, the Navy and NMFS anticipate more severe effects from takes resulting from exposure to higher received levels (though this is in no way a strictly linear relationship throughout species, individuals, or circumstances) and less severe effects from takes resulting from exposure to lower received levels.

In the Analysis and Negligible Impact Determination section of the proposed rule, NMFS addressed the issues identified in the preceding paragraph in combination with additional detailed analysis regarding the severity of the anticipated effects, and including species (or group)-specific discussions, to preliminarily determine that Navy training will have a negligible impact on the marine mammal species and stocks present in NWTRC. No changes have been made to the discussion contained in this section of the proposed rule (74 FR 33828, pages 33884–33892), with the following exception.

As mentioned previously in the Estimated Take section, NMFS has added language bounding the flexibility in annual variation of potential take of individual marine mammal species into the regulatory text (*see* § 218.112(c)). The new language indicates that modeled annual takes (which must be provided with the annual LOA application) of any individual species may vary but will not ultimately exceed the indicated 5-year total for that species (indicated by Table 6) by more than 10 percent and will not exceed the indicated annual total by more than 25 percent in any given year; and that modeled total yearly take of all species combined may vary but may not exceed the combined amount indicated below in any given year by more than 10 percent. NMFS has considered these limitations in our negligible impact determination and the findings described in the proposed rule remain applicable.

## Determination

### *Negligible Impact*

Based on the analysis contained here and in the proposed rule (and other related documents) of the likely effects of the specified activity on marine mammals and their habitat and dependent upon the implementation of the mitigation and monitoring measures, NMFS finds that the total taking from Navy training exercises utilizing MFAS/HFAS and underwater explosives in the NWTRC will have a negligible impact on the affected species or stocks. NMFS is issuing regulations for these exercises that prescribe the means of effecting the least practicable adverse impact on marine mammals and their habitat and

set forth requirements pertaining to the monitoring and reporting of that taking.

### *Subsistence Harvest of Marine Mammals*

NMFS has determined that the issuance of 5-year regulations and subsequent LOAs for Navy training exercises in the NWTRC would not have an unmitigable adverse impact on the availability of the affected species or stocks for subsistence use for any Alaska Natives or tribal member in the Northwest (*e.g.*, Oregon, Washington, and northern California). Specifically, the Navy's exercises would not affect any Alaskan Native because the activities will be limited to waters off the coast of Washington, Oregon, and northern California, areas outside of traditional Alaskan Native hunting grounds. Moreover, there are no cooperative agreements in force under the MMPA or Whaling Convention Act that would allow for the subsistence harvest of marine mammals in waters off the Northwest coast. Consequently, this action would not result in an unmitigable adverse impact on the availability of the affected species or stocks for taking for subsistence uses in the Northwest.

## ESA

There are seven marine mammal species and one sea turtle species that are listed as endangered under the ESA with confirmed or possible occurrence in the study area: Humpback whale, sei whale, fin whale, blue whale, sperm whale, southern resident killer whale, Steller sea lion, and the leatherback sea turtle. Pursuant to Section 7 of the ESA, the Navy has consulted with NMFS on this action. NMFS has also consulted internally on the issuance of regulations under section 101(a)(5)(A) of the MMPA for this activity. In a Biological Opinion (BiOp) issued on June 15, 2010, NMFS concluded that the Navy's activities in the NWTRC and NMFS' issuance of these regulations are not likely to jeopardize the continued existence of threatened or endangered species or destroy or adversely modify any designated critical habitat.

NMFS (the Endangered Species Division) will also issue BiOps and associated incidental take statements (ITs) to NMFS (the Permits, Conservation, and Recreation Division) to exempt the take (under the ESA) that NMFS authorizes in annual LOAs under the MMPA. Because of the difference between the statutes, it is possible that ESA analysis of the applicant's action could produce a take estimate that is different than the takes requested by the applicant (and analyzed for

authorization by NMFS under the MMPA process), despite the fact that the same proposed action (*i.e.* number of sonar hours and explosive detonations) was being analyzed under each statute. When this occurs, NMFS staff coordinate to ensure that the appropriate number of takes are authorized. For the Navy's proposed NWTRC training, coordination with the Endangered Species Division indicates that they will likely allow for a lower level of take of ESA-listed marine mammals than were requested by the applicant (because NMFS' ESA analysis indicates that fewer will be taken than estimated by the applicant). Therefore, the number of authorized takes in NMFS' LOA(s) will reflect the lower take numbers from the ESA consultation, though the specified activities (*i.e.*, number of sonar hours, etc.) will remain the same. Alternately, these regulations indicate the maximum number of takes that may be authorized under the MMPA. The ITS(s) issued for each LOA will contain implementing terms and conditions to minimize the effect of the marine mammal take authorized through the 2010 LOA (and subsequent LOAs in 2011, 2012, 2013, and 2014). With respect to listed marine mammals, the terms and conditions of the ITSs will be incorporated into the LOAs.

## NEPA

NMFS has participated as a cooperating agency on the Navy's Draft Environmental Impact Statement (DEIS) for the NWTRC, which was published on December 29, 2008. A Notice of Availability for the FEIS was published on September 10, 2010. NMFS subsequently adopted the Navy's EIS for the purpose of complying with the MMPA.

## Classification

This action does not contain any collection of information requirements for purposes of the Paperwork Reduction Act.

The Office of Management and Budget has determined that this final rule is not significant for purposes of Executive Order 12866.

Pursuant to the Regulatory Flexibility Act, the Chief Counsel for Regulation of the Department of Commerce has certified to the Chief Counsel for Advocacy of the Small Business Administration that this final rule, if adopted, would not have a significant economic impact on a substantial number of small entities. The Regulatory Flexibility Act requires Federal agencies to prepare an analysis of a rule's impact on small entities



whenever the agency is required to publish a notice of proposed rulemaking. However, a Federal agency may certify, pursuant to 5 U.S.C. 605 (b), that the action will not have a significant economic impact on a substantial number of small entities. The Navy is the sole entity that will be affected by this rulemaking, not a small governmental jurisdiction, small organization or small business, as defined by the Regulatory Flexibility Act (RFA). Any requirements imposed by a Letter of Authorization issued pursuant to these regulations, and any monitoring or reporting requirements imposed by these regulations, will be applicable only to the Navy. NMFS does not expect the issuance of these regulations or the associated LOAs to result in any impacts to small entities pursuant to the RFA. Because this action, if adopted, would directly affect the Navy and not a small entity, this action would not result in a significant economic impact on a substantial number of small entities.

The Assistant Administrator for Fisheries has determined that there is good cause under the Administrative Procedure Act (5 U.S.C. 553(d)(3)) to waive the 30-day delay in effective date of the measures contained in the final rule. Navy, as the authorized entity, has informed NMFS that any delay of enacting the final rule would result in either: (1) A suspension of ongoing or planned naval training, which would disrupt vital training essential to national security; or (2) the Navy's procedural non-compliance with the MMPA (should the Navy conduct training without an LOA), thereby resulting in the potential for unauthorized takes of marine mammals. Moreover, the Navy is ready to implement the rule immediately. Therefore, these measures will become effective upon publication.

#### List of Subjects in 50 CFR Part 218

Exports, Fish, Imports, Incidental take, Indians, Labeling, Marine mammals, Navy, Penalties, Reporting and recordkeeping requirements, Seafood, Sonar, Transportation.

Dated: October 25, 2010.

**John Oliver,**

*Deputy Assistant Administrator for Operations, National Marine Fisheries Service.*

■ For reasons set forth in the preamble, 50 CFR part 218 is amended as follows:

#### PART 218—REGULATIONS GOVERNING THE TAKING AND IMPORTING OF MARINE MAMMALS

■ 1. The authority citation for part 218 continues to read as follows:

**Authority:** 16 U.S.C. 1361 *et seq.*

■ 2. Subpart M is added to part 218 to read as follows:

##### **Subpart M—Taking and Importing Marine Mammals; U.S. Navy's Northwest Training Range Complex (NWTRC)**

Sec.

- 218.110 Specified activity and specified geographical area.
- 218.111 Effective dates.
- 218.112 Permissible methods of taking.
- 218.113 Prohibitions.
- 218.114 Mitigation.
- 218.115 Requirements for monitoring and reporting.
- 218.116 Applications for Letters of Authorization.
- 218.117 Letters of Authorization.
- 218.118 Renewal of Letters of Authorization and adaptive management.
- 218.119 Modifications to Letters of Authorization.

##### **Subpart M—Taking and Importing Marine Mammals; U.S. Navy's Northwest Training Range Complex (NWTRC)**

##### **§ 218.110 Specified activity and specified geographical area.**

(a) Regulations in this subpart apply only to the U.S. Navy for the taking of marine mammals that occurs in the area outlined in paragraph (b) of this section and that occur incidental to the activities described in paragraph (c) of this section.

(b) The taking of marine mammals by the Navy is only authorized if it occurs within the Offshore area of the Northwest Training Range Complex (NWTRC) (as depicted in Figure ES-1 in the Navy's Draft Environmental Impact Statement for NWTRC), which is bounded by 48°30' N. lat.; 130°00' W. long.; 40°00' N. lat.; and on the east by 124°00' W. long or by the shoreline where the shoreline extends west of 124°00' W. long (excluding the Strait of Juan de Fuca (east of 124°40' W. long), which is not included in the Offshore area).

(c) The taking of marine mammals by the Navy is only authorized if it occurs incidental to the following activities within the designated amounts of use:

(1) The use of the following mid-frequency active sonar (MFAS) sources, high frequency active sonar (HFAS) sources for U.S. Navy anti-submarine warfare (ASW) and mine warfare (MIW) training, in the amounts indicated below:

(i) AN/SQS-53 (hull-mounted active sonar)—up to 215 hours over the course of 5 years (an average of 43 hours per year);

(ii) AN/SQS-56 (hull-mounted active sonar)—up to 325 hours over the course of 5 years (an average of 65 hours per year);

(iii) SSQ-62 (Directional Command Activated Sonobuoy System (DICASS) sonobuoys)—up to 4430 sonobuoys over the course of 5 years (an average of 886 sonobuoys per year)

(iv) MK-48 (heavyweight torpedoes)—up to 10 torpedoes over the course of 5 years (an average of 2 torpedoes per year);

(v) AN/BQS-15 (mine detection and submarine navigational sonar)—up to 210 hours over the course of 5 years (an average of 42 hours per year);

(vi) AN/SSQ-125 (AEER)—up to 745 buoys deployed over the course of 5 years (total combined with the AN/SSQ-110A (IEER)) (an average of 149 per year);

(vii) Range Pingers—up to 900 hours over the course of 5 years (an average of 180 hours per year); and

(viii) PUTR Uplink—up to 750 hours over the course of 5 years (an average of 150 hours per year).

(2) The detonation of the underwater explosives indicated in paragraph (c)(2)(i) conducted as part of the training events indicated in paragraph (c)(2)(ii):

(i) Underwater Explosives:

(A) 5" Naval Gunfire (9.5 lbs);

(B) 76 mm rounds (1.6 lbs);

(C) Maverick (78.5 lbs);

(D) Harpoon (448 lbs);

(E) MK-82 (238 lbs);

(F) MK-48 (851 lbs);

(G) Demolition Charges (2.5 lbs);

(H) AN/SSQ-110A (IEER explosive sonobuoy—5 lbs);

(I) HARM;

(J) Hellfire;

(K) SLAM; and

(L) GBU 10, 12, and 16.

(ii) Training Events:

(A) Surface-to-surface Gunnery Exercises (S-S GUNEX)—up to 1700 exercises over the course of 5 years (an average of 340 per year).

(B) Bombing Exercises (BOMBEX)—up to 150 exercises over the course of 5 years (an average of 30 per year).

(C) Sinking Exercises (SINKEX)—up to 10 exercises over the course of 5 years (an average of 2 per year).

(D) Extended Echo Ranging and Improved Extended Echo Ranging (EER/IEER) Systems—up to 60 exercises (total combined with the AN/SSQ-125A (AEER)) over the course of 5 years (an average of 12 per year).

(3) The taking of marine mammals may also be authorized in an LOA for



the activities and sources listed in § 218.110(c)(1) should the amounts (*i.e.*, hours, dips, number of exercises) vary from those estimated in § 218.110(c)(2), provided that the variation does not result in exceeding the amount of take indicated in § 218.112(c).

#### § 218.111 Effective dates.

Regulations are effective November 9, 2010 through November 9, 2015.

#### § 218.112 Permissible methods of taking.

(a) Under Letters of Authorization issued pursuant to §§ 216.106 and 218.117 of this chapter, the Holder of the Letter of Authorization (hereinafter “Navy”) may incidentally, but not intentionally, take marine mammals within the area described in § 218.110(b), provided the activity is in compliance with all terms, conditions, and requirements of these regulations and the appropriate Letter of Authorization.

(b) [Reserved]

(c) The incidental take of marine mammals under the activities identified in § 218.110(c) is limited to the species listed in paragraphs (c)(4) and (5) of this section by the indicated method of take and the indicated number of times (estimated based on the authorized amounts of sound source operation), but with the following allowances for annual variation in sonar activities:

(1) In any given year, annual take, by harassment, of any species of marine mammal may not exceed the amount identified in paragraph (c)(4) and (5) of this section, for that species by more than 25 percent (a post-calculation/estimation of which must be provided in the annual LOA application);

(2) In any given year, annual take by harassment of all marine mammal species combined may not exceed the estimated total of all species combined, indicated in paragraphs (c)(4) and (5), by more than 10 percent; and

(3) Over the course of the effective period of this subpart, total take, by harassment, of any species may not exceed the 5-year amounts indicated in paragraphs (c)(4) and (5) by more than 10 percent. A running calculation/estimation of takes of each species over the course of the years covered by the rule must be maintained.

(4) Level B Harassment:

(i) Mysticetes:

(A) Humpback whale (*Megaptera novaeangliae*)—75 (an average of 15 annually);

(B) Fin whale (*Balaenoptera physalus*)—720 (an average of 144 annually);

(C) Blue whale (*Balaenoptera musculus*)—95 (an average of 19 annually);

(D) Sei whale (*Balaenoptera borealis*)—5 (an average of 1 annually);

(E) Minke whale (*Balaenoptera acutorostrata*)—45 (an average of 9 annually); and

(F) Gray whale (*Eschrichtius robustus*)—20 (an average of 4 annually).

(ii) Odontocetes:

(A) Sperm whales (*Physeter macrocephalus*)—635 (an average of 127 annually);

(B) Killer whale (*Orcinus orca*)—70 (an average of 14 annually);

(C) Pygmy or dwarf sperm whales (*Kogia breviceps* or *Kogia sima*)—20 (an average of 4 annually);

(D) Mesoplodont beaked whales—75 (an average of 15 annually);

(E) Cuvier's beaked whales (*Ziphius cavirostris*)—70 (an average of 14 annually);

(F) Baird's beaked whales (*Berardius bairdii*)—65 (an average of 13 annually);

(G) Short-finned pilot whale (*Globicephala macrorhynchus*)—10 (an average of 2 annually);

(H) Striped dolphin (*Stenella coeruleoalba*)—200 (an average of 40 annually);

(I) Short-beaked common dolphin (*Globicephala macrorhynchus*)—6280 (an average of 1256 annually);

(J) Risso's dolphin (*Grampus griseus*)—500 (an average of 100 annually);

(K) Northern right whale dolphin (*Lissodelphis borealis*)—3705 (an average of 741 annually);

(L) Pacific white-sided dolphin (*Lagenorhynchus obliquidens*)—2855 (an average of 571 annually);

(M) Dall's porpoise (*Phocoenoides dalli*)—23760 (an average of 4752 annually); and

(N) Harbor Porpoise (*Phocoena phocoena*)—596370 (an average of 119274 annually).

(ii) Pinnipeds:

(A) Northern elephant seal (*Mirounga angustirostris*)—1890 (an average of 378 annually);

(B) Pacific harbor seal (*Phoca vitulina*)—2930 (an average of 586 annually);

(C) California sea lion (*Zalophus californianus*)—1430 (an average of 286 annually);

(D) Northern fur seal (*Callorhinus ursinus*)—6825 (an average of 1365 annually); and

(E) Steller sea lion (*Eumetopias jubatus*)—600 (an average of 120 annually).

(5) Level A Harassment:

(i) Fin whale—5 (an average of 1 annually);

(ii) Sperm whale—5 (an average of 1 annually);

(iii) Dall's Porpoise—15 (an average of 3 annually);

(iv) Harbor Porpoise—5 (an average of 1 annually);

(v) Northern right whale dolphin—5 (an average of 1 annually);

(vi) Short-beaked common dolphin—10 (an average of 2 annually);

(vii) Northern elephant seal—10 (an average of 2 annually);

(viii) Pacific harbor seal—5 (an average of 1 annually); and

(ix) Northern fur seal—5 (an average of 1 annually).

#### § 218.113 Prohibitions.

No person in connection with the activities described in § 218.110 may:

(a) Take any marine mammal not specified in § 218.112(c);

(b) Take any marine mammal specified in § 218.112(c) other than by incidental take as specified in §§ 218.112(c)(1) and (c)(2);

(c) Take a marine mammal specified in § 218.112(c) if such taking results in more than a negligible impact on the species or stocks of such marine mammal; or

(d) Violate, or fail to comply with, the terms, conditions, and requirements of these regulations or a Letter of Authorization issued under §§ 216.106 and 218.117 of this chapter.

#### § 218.114 Mitigation.

(a) When conducting training and utilizing the sound sources or explosives identified in § 218.110(c), the mitigation measures contained in the Letter of Authorization issued under §§ 216.106 and 218.117 of this chapter must be implemented. These mitigation measures include, but are not limited to:

(1) Navy's General Maritime Measures for All Training at Sea:

(i) Personnel Training (for all Training Types):

(A) All commanding officers (COs), executive officers (XOs), lookouts, Officers of the Deck (OODs), junior OODs (JOODs), maritime patrol aircraft aircrews, and Anti-submarine Warfare (ASW)/Mine Warfare (MIW) helicopter crews shall complete the NMFS-approved Marine Species Awareness Training (MSAT) by viewing the U.S. Navy MSAT digital versatile disk (DVD). All bridge lookouts shall complete both parts one and two of the MSAT; part two is optional for other personnel.

(B) Navy lookouts shall undertake extensive training in order to qualify as a watchstander in accordance with the Lookout Training Handbook (Naval Education and Training Command [NAVEDTRA] 12968-D) available at <https://portal.navfac.navy.mil/go/navytraining-env-docs>.

(C) Lookout training shall include on-the-job instruction under the supervision of a qualified, experienced lookout. Following successful completion of this supervised training period, lookouts shall complete the Personal Qualification Standard Program, certifying that they have demonstrated the necessary skills (such as detection and reporting of partially submerged objects). Personnel being trained as lookouts can be counted among required lookouts as long as supervisors monitor their progress and performance.

(D) Lookouts shall be trained in the most effective means to ensure quick and effective communication within the command structure in order to facilitate implementation of protective measures if marine species are spotted.

(ii) Operating Procedures and Collision Avoidance:

(A) Prior to major exercises, a Letter of Instruction, Mitigation Measures Message or Environmental Annex to the Operational Order shall be issued to further disseminate the personnel training requirement and general marine species protective measures.

(B) COs shall make use of marine species detection cues and information to limit interaction with marine species to the maximum extent possible consistent with safety of the ship.

(C) While underway, surface vessels shall have at least two lookouts with binoculars; surfaced submarines shall have at least one lookout with binoculars. Lookouts already posted for safety of navigation and man-overboard precautions may be used to fill this requirement. As part of their regular duties, lookouts will watch for and report to the OOD the presence of marine mammals.

(D) On surface vessels equipped with a multi-function active sensor, pedestal mounted "Big Eye" (20x110) binoculars shall be properly installed and in good working order to assist in the detection of marine mammals in the vicinity of the vessel.

(E) Personnel on lookout shall employ visual search procedures employing a scanning methodology in accordance with the Lookout Training Handbook (NAVEDTRA 12968-D).

(F) After sunset and prior to sunrise, lookouts shall employ Night Lookouts Techniques in accordance with the Lookout Training Handbook. (NAVEDTRA 12968-D).

(G) While in transit, naval vessels shall be alert at all times, use extreme caution, and proceed at a "safe speed" so that the vessel can take proper and effective action to avoid a collision with any marine animal and can be stopped

within a distance appropriate to the prevailing circumstances and conditions.

(H) When marine mammals have been sighted in the area, Navy vessels shall increase vigilance and take reasonable and practicable actions to avoid collisions and activities that might result in close interaction of naval assets and marine mammals. Actions may include changing speed and/or direction and are dictated by environmental and other conditions (e.g., safety, weather).

(I) Naval vessels shall maneuver to keep at least 1,500 ft (500 yds) away from any observed whale in the vessel's path and avoid approaching whales head-on. These requirements do not apply if a vessel's safety is threatened, such as when change of course will create an imminent and serious threat to a person, vessel, or aircraft, and to the extent vessels are restricted in their ability to maneuver. Restricted maneuverability includes, but is not limited to, situations when vessels are engaged in dredging, submerged activities, launching and recovering aircraft or landing craft, minesweeping activities, replenishment while underway and towing activities that severely restrict a vessel's ability to deviate course. Vessels will take reasonable steps to alert other vessels in the vicinity of the whale. Given rapid swimming speeds and maneuverability of many dolphin species, naval vessels would maintain normal course and speed on sighting dolphins unless some condition indicated a need for the vessel to maneuver.

(J) Navy aircraft participating in exercises at sea shall conduct and maintain, when operationally feasible and safe, surveillance for marine mammals as long as it does not violate safety constraints or interfere with the accomplishment of primary operational duties. Marine mammal detections shall be immediately reported to assigned Aircraft Control Unit for further dissemination to ships in the vicinity of the marine species as appropriate when it is reasonable to conclude that the course of the ship will likely result in a closing of the distance to the detected marine mammal.

(K) All vessels shall maintain logs and records documenting training operations should they be required for event reconstruction purposes. Logs and records will be kept for a period of 30 days following completion of a major training exercise.

(2) Navy's Measures for MFAS Operations:

(i) Personnel Training (for MFAS Operations):

(A) All lookouts onboard platforms involved in ASW training events shall review the NMFS-approved Marine Species Awareness Training material prior to use of mid-frequency active sonar.

(B) All COs, XO's, and officers standing watch on the bridge shall have reviewed the Marine Species Awareness Training material prior to a training event employing the use of mid-frequency active sonar.

(C) Navy lookouts shall undertake extensive training in order to qualify as a watchstander in accordance with the Lookout Training Handbook (Naval Educational Training [NAVEDTRA], 12968-D).

(D) Lookout training shall include on-the-job instruction under the supervision of a qualified, experienced watchstander. Following successful completion of this supervised training period, lookouts shall complete the Personal Qualification Standard program, certifying that they have demonstrated the necessary skills (such as detection and reporting of partially submerged objects). This does not forbid personnel being trained as lookouts from being counted as those listed in previous measures so long as supervisors monitor their progress and performance.

(E) Lookouts shall be trained in the most effective means to ensure quick and effective communication within the command structure in order to facilitate implementation of mitigation measures if marine species are spotted.

(ii) Lookout and Watchstander Responsibilities:

(A) On the bridge of surface ships, there shall always be at least three people on watch whose duties include observing the water surface around the vessel.

(B) All surface ships participating in ASW training events shall, in addition to the three personnel on watch noted previously, have at all times during the exercise at least two additional personnel on watch as marine mammal lookouts.

(C) Personnel on lookout and officers on watch on the bridge shall have at least one set of binoculars available for each person to aid in the detection of marine mammals.

(D) On surface vessels equipped with mid-frequency active sonar, pedestal mounted "Big Eye" (20x110) binoculars shall be present and in good working order to assist in the detection of marine mammals in the vicinity of the vessel.

(E) Personnel on lookout shall employ visual search procedures employing a scanning methodology in accordance

with the Lookout Training Handbook (NAVEDTRA 12968–D).

(F) After sunset and prior to sunrise, lookouts shall employ Night Lookouts Techniques in accordance with the Lookout Training Handbook.

(G) Personnel on lookout shall be responsible for reporting all objects or anomalies sighted in the water (regardless of the distance from the vessel) to the Officer of the Deck, since any object or disturbance (e.g., trash, periscope, surface disturbance, discoloration) in the water may be indicative of a threat to the vessel and its crew or indicative of a marine species that may need to be avoided as warranted.

(iii) Operating Procedures (for MFAS Operations):

(A) Navy will distribute final mitigation measures contained in the LOA and the Incidental take statement of NMFS' biological opinion to the Fleet.

(B) COs shall make use of marine species detection cues and information to limit interaction with marine species to the maximum extent possible consistent with safety of the ship.

(C) All personnel engaged in passive acoustic sonar operation (including aircraft, surface ships, or submarines) shall monitor for marine mammal vocalizations and report the detection of any marine mammal to the appropriate watch station for dissemination and appropriate action.

(D) During mid-frequency active sonar operations, personnel shall utilize all available sensor and optical systems (such as night vision goggles) to aid in the detection of marine mammals.

(E) Navy aircraft participating in exercises at sea shall conduct and maintain, when operationally feasible and safe, surveillance for marine species of concern as long as it does not violate safety constraints or interfere with the accomplishment of primary operational duties.

(F) Aircraft with deployed sonobuoys shall use only the passive capability of sonobuoys when marine mammals are detected within 200 yds (183 m) of the sonobuoy.

(G) Marine mammal detections shall be immediately reported to assigned Aircraft Control Unit for further dissemination to ships in the vicinity of the marine species as appropriate where it is reasonable to conclude that the course of the ship will likely result in a closing of the distance to the detected marine mammal.

(H) Safety Zones—When marine mammals are detected by any means (aircraft, shipboard lookout, or acoustically) the Navy shall ensure that

sonar transmission levels are limited to at least 6 dB below normal operating levels if any detected marine mammals are within 1,000 yards (914 m) of the sonar dome (the bow).

(1) Ships and submarines shall continue to limit maximum transmission levels by this 6-dB factor until the animal has been seen to leave the 1,000-yd safety zone, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yds (1829 m) beyond the location of the last detection.

(2). When marine mammals are detected by any means (aircraft, shipboard lookout, or acoustically) the Navy shall ensure that sonar transmission levels are limited to at least 10 dB below normal operating levels if any detected marine mammals are within 500 yards (497 m) of the sonar dome (the bow). Ships and submarines shall continue to limit maximum ping levels by this 10-dB factor until the animal has been seen to leave the 500-yd safety zone, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yds (1829 m) beyond the location of the last detection.

(3). When marine mammals are detected by any means (aircraft, shipboard lookout, or acoustically) the Navy shall ensure that sonar transmission ceases if any detected marine mammals are within 200 yards (183 m) of the sonar dome (the bow). Sonar shall not resume until the animal has been seen to leave the 200-yd safety zone, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yds (1829 m) beyond the location of the last detection.

(4) Special conditions applicable for dolphins and porpoises only: If, after conducting an initial maneuver to avoid close quarters with dolphins or porpoises, the OOD concludes that dolphins or porpoises are deliberately closing to ride the vessel's bow wave, no further mitigation actions are necessary while the dolphins or porpoises continue to exhibit bow wave riding behavior.

(5) If the need for power-down should arise as detailed in "Safety Zones" above, the Navy shall follow the requirements as though they were operating at 235 dB—the normal operating level (i.e., the first power-down will be to 229 dB, regardless of at what level above 235 dB active sonar was being operated).

(I) Prior to start up or restart of active sonar, operators will check that the Safety Zone radius around the sound source is clear of marine mammals.

(J) Active sonar levels (generally)—Navy shall operate active sonar at the lowest practicable level, not to exceed 235 dB, except as required to meet tactical training objectives.

(K) Helicopters shall observe/survey the vicinity of an ASW training event for 10 minutes before the first deployment of active (dipping) sonar in the water.

(L) Helicopters shall not dip their active sonar within 200 yds (183 m) of a marine mammal and shall cease pinging if a marine mammal closes within 200 yds of the sound source (183 m) after pinging has begun.

(M) Submarine sonar operators shall review detection indicators of close- aboard marine mammals prior to the commencement of ASW training events involving active mid-frequency sonar.

(N) Night vision goggles shall be available to all ships and air crews, for use as appropriate.

(3) Navy's Measures for Underwater Detonations:

(i) Surface-to-Surface Gunnery (non-explosive rounds)

(A) A 200-yd (183 m) radius buffer zone shall be established around the intended target.

(B) From the intended firing position, trained lookouts shall survey the buffer zone for marine mammals prior to commencement and during the exercise as long as practicable.

(C) If applicable, target towing vessels shall maintain a lookout. If a marine mammal is sighted in the vicinity of the exercise, the tow vessel shall immediately notify the firing vessel in order to secure gunnery firing until the area is clear.

(D) The exercise shall be conducted only when the buffer zone is visible and marine mammals are not detected within the target area and the buffer zone.

(ii) Surface-to-Air Gunnery (explosive and non-explosive rounds)

(A) Vessels shall orient the geometry of gunnery exercises in order to prevent debris from falling in the area of sighted marine mammals.

(B) Vessels will attempt to recover any parachute deploying aerial targets to the extent practicable (and their parachutes if feasible) to reduce the potential for entanglement of marine mammals.

(C) For exercises using targets towed by a vessel or aircraft, target towing vessel/aircraft shall maintain a lookout. If a marine mammal is sighted in the vicinity of the exercise, the tow aircraft shall immediately notify the firing vessel in order to secure gunnery firing until the area is clear.

(iii) Air-to-Surface At-sea Bombing Exercises (explosive and non-explosive):

(A) If surface vessels are involved, trained lookouts shall survey for floating kelp and marine mammals. Ordnance shall not be targeted to impact within 1,000 yds (914 m) of known or observed floating kelp or marine mammals.

(B) A 1,000 yd (914 m) radius buffer zone shall be established around the intended target.

(C) Aircraft shall visually survey the target and buffer zone for marine mammals prior to and during the exercise. The survey of the impact area shall be made by flying at 1,500 ft (457 m) or lower, if safe to do so, and at the slowest safe speed. Release of ordnance through cloud cover is prohibited: aircraft must be able to actually see ordnance impact areas. Survey aircraft should employ most effective search tactics and capabilities.

(D) The exercise will be conducted only if marine mammals are not visible within the buffer zone.

(iv) Air-to-Surface Missile Exercises (explosive and non-explosive):

(A) Ordnance shall not be targeted to impact within 1,800 yds (1646 m) of known or observed floating kelp.

(B) Aircraft shall visually survey the target area for marine mammals. Visual inspection of the target area shall be made by flying at 1,500 ft (457 m) or lower, if safe to do so, and at slowest safe speed. Firing or range clearance aircraft must be able to actually see ordnance impact areas. Explosive ordnance shall not be targeted to impact within 1,800 yds (1646 m) of sighted marine mammals.

(v) Demolitions, Mine Warfare, and Mine Countermeasures (up to a 2.5-lb charge):

(A) Exclusion Zones—All Mine Warfare and Mine Countermeasures Operations involving the use of explosive charges must include exclusion zones for marine mammals to prevent physical and/or acoustic effects to those species. These exclusion zones shall extend in a 700-yard arc radius around the detonation site.

(B) Pre-Exercise Surveys—For Demolition and Ship Mine Countermeasures Operations, pre-exercise surveys shall be conducted within 30 minutes prior to the commencement of the scheduled explosive event. The survey may be conducted from the surface, by divers, and/or from the air, and personnel shall be alert to the presence of any marine mammal. Should such an animal be present within the survey area, the explosive event shall not be started until the animal voluntarily leaves the area. The Navy will ensure the area is clear of marine mammals for a full 30 minutes prior to initiating the explosive

event. Personnel will record any marine mammal observations during the exercise as well as measures taken if species are detected within the exclusion zone.

(C) Post-Exercise Surveys—Surveys within the same radius shall also be conducted within 30 minutes after the completion of the explosive event.

(D) Reporting—If there is evidence that a marine mammal may have been stranded, injured or killed by the action, Navy training activities shall be immediately suspended and the situation immediately reported by the participating unit to the Officer in Charge of the Exercise (OCE), who will follow Navy procedures for reporting the incident to Commander, Pacific Fleet, Commander, Navy Region Northwest, Environmental Director, and the chain-of-command. The situation shall also be reported to NMFS (see Stranding Plan for details).

(vi) Sink Exercise:

(A) All weapons firing shall be conducted during the period 1 hour after official sunrise to 30 minutes before official sunset.

(B) An exclusion zone with a radius of 1.5 nm shall be established around each target. This 1.5 nm zone includes a buffer of 0.5 nm to account for errors, target drift, and animal movement. In addition to the 1.5 nm exclusion zone, a further safety zone, which extends from the exclusion zone at 1.5 nm out an additional 0.5 nm, shall be surveyed. Together, the zones extend out 2 nm (3.7 km) from the target.

(C) A series of surveillance overflights shall be conducted within the 2-nm zone around the target, prior to and during the exercise, when feasible. Survey protocol shall be as follows:

(1) Overflights within the 2-nm zone around the target shall be conducted in a manner that optimizes the surface area of the water observed. This may be accomplished through the use of the Navy's Search and Rescue Tactical Aid, which provides the best search altitude, ground speed, and track spacing for the discovery of small, possibly dark objects in the water based on the environmental conditions of the day. These environmental conditions include the angle of sun inclination, amount of daylight, cloud cover, visibility, and sea state.

(2) All visual surveillance activities shall be conducted by Navy personnel trained in visual surveillance. At least one member of the mitigation team is required to have completed the Navy's marine mammal training program for lookouts.

(3) In addition to the overflights, the 2-nm zone around the target shall be

monitored by passive acoustic means, when assets are available. This passive acoustic monitoring would be maintained throughout the exercise. Potential assets include sonobuoys, which can be utilized to detect any vocalizing marine mammals (particularly sperm whales) in the vicinity of the exercise. The sonobuoys shall be re-seeded as necessary throughout the exercise. Additionally, if submarines are present, passive sonar onboard shall be utilized to detect any vocalizing marine mammals in the area. The OCE would be informed of any aural detection of marine mammals and would include this information in the determination of when it is safe to commence the exercise.

(4) On each day of the exercise, aerial surveillance of the 2-nm zone around the target shall commence 2 hours prior to the first firing.

(5) The results of all visual, aerial, and acoustic searches shall be reported immediately to the OCE. No weapons launches or firing may commence until the OCE declares the 2-nm zone around the target free of marine mammals.

(6) If a marine mammal observed within the 2-nm zone around the target is diving, firing would be delayed until the animal is re-sighted outside the 2-nm zone around the target, or 30 minutes have elapsed. After 30 minutes, if the animal has not been re-sighted it would be assumed to have left the exclusion zone. The OCE would determine if the identified marine mammal is in danger of being adversely affected by commencement of the exercise.

(7) During breaks in the exercise of 30 minutes or more, the 2-nm zone around the target shall again be surveyed for any marine mammal. If marine mammals are sighted within 2-nm zone around the target, the OCE shall be notified, and the procedure described in (vi)(c)(1)–(6) would be followed.

(8) Upon sinking of the vessel, a final surveillance of the 2-nm zone around the target shall be monitored for 2 hours, or until sunset, to verify that no marine mammals were injured.

(D) Aerial surveillance shall be conducted using helicopters or other aircraft based on necessity and availability.

(E) Where practicable, the Navy shall conduct the exercise in sea states that are ideal for marine mammal sighting, i.e., Beaufort Sea State 3 or less. In the event of a Beaufort Sea State 4 or above, survey efforts shall be increased within the 2-nm zone around the target. This shall be accomplished through the use of an additional aircraft, if available, and conducting tight search patterns.

(F) The sink exercise shall not be conducted unless the 2-nm zone around the target could be adequately monitored visually.

(G) In the event that any marine mammals are observed to be harmed in the area, NMFS shall be notified as soon as feasible following the stranding communication protocol. A detailed description of the animal shall be taken, the location noted, and if possible, photos taken. This information shall be provided to NMFS as soon as practicable via the Navy's regional environmental coordinator for purposes of identification.

(H) An after action report detailing the exercise's time line, the time the surveys commenced and terminated, amount, and types of all ordnance expended, and the results of survey efforts for each event shall be submitted to NMFS.

(vii) Extended Echo Ranging/Improved Extended Echo Ranging (EER/IEER):

(A) Crews shall conduct visual reconnaissance of the drop area prior to laying their intended sonobuoy pattern. This search shall be conducted at an altitude below 457 m (500 yd) at a slow speed, if operationally feasible and weather conditions permit. In dual aircraft operations, crews are allowed to conduct area clearances utilizing more than one aircraft.

(B) For IEER (AN/SSQ-110A), crews shall conduct a minimum of 30 minutes of visual and aural monitoring of the search area prior to commanding the first post detonation. This 30-minute observation period may include pattern deployment time.

(C) For any part of the intended sonobuoy pattern where a post (source/receiver sonobuoy pair) will be deployed within 914 m (1,000 yd) of observed marine mammal activity, the Navy shall deploy the receiver ONLY (*i.e.*, not the source) and monitor while conducting a visual search. When marine mammals are no longer detected within 914 m (1,000 yd) of the intended post position, the source sonobuoy (AN/SSQ-110A/SSQ-125) will be co-located with the receiver.

(D) When operationally feasible, Navy crews shall conduct continuous visual and aural monitoring of marine mammal activity. This shall include monitoring of aircraft sensors from the time of the first sensor placement until the aircraft have left the area and are out of RF range of these sensors.

(E) Aural Detection—If the presence of marine mammals is detected aurally, then that shall cue the Navy aircrew to increase the vigilance of their visual surveillance. Subsequently, if no marine mammals are visually detected, then the

crew may continue multi-static active search.

(F) Visual Detection—If marine mammals are visually detected within 914 m (1,000 yd) of the explosive source sonobuoy (AN/SSQ-110A) intended for use, then that payload shall not be detonated. Aircrews may utilize this post once the marine mammals have not been re-sighted for 30 minutes, or are observed to have moved outside the 914 m (1,000 yd) safety buffer. Aircrews may shift their multi-static active search to another post, where marine mammals are outside the 914 m (1,000 yd) safety buffer.

(G) For IEER (AN/SSQ-110A), aircrews shall make every attempt to manually detonate the unexploded charges at each post in the pattern prior to departing the operations area by using the "Payload 1 Release" command followed by the "Payload 2 Release" command. Aircrews shall refrain from using the "Scuttle" command when two payloads remain at a given post. Aircrews will ensure that a 914 m (1,000 yd) safety buffer, visually clear of marine mammals, is maintained around each post as is done during active search operations.

(H) Aircrews shall only leave posts with unexploded charges in the event of a sonobuoy malfunction, an aircraft system malfunction, or when an aircraft must immediately depart the area due to issues such as fuel constraints, inclement weather, or in-flight emergencies. In these cases, the sonobuoy will self-scuttle using the secondary or tertiary method.

(I) The Navy shall ensure all payloads are accounted for. Explosive source sonobuoys (AN/SSQ-110A) that cannot be scuttled shall be reported as unexploded ordnance via voice communications while airborne, then upon landing via naval message.

(J) Mammal monitoring shall continue until out of own-aircraft sensor range.

(b) [Reserved]

#### **§ 218.115 Requirements for monitoring and reporting.**

(a) *General Notification of Injured or Dead Marine Mammals*—Navy personnel shall ensure that NMFS is notified immediately (see Communication Plan) or as soon as clearance procedures allow) if an injured, stranded, or dead marine mammal is found during or shortly after, and in the vicinity of, any Navy training exercise utilizing MFAS, HFAS, or underwater explosive detonations. The Navy will provide NMFS with the name of species or description of the animal(s), the condition of the animal(s) (including carcass condition if the

animal is dead), location, time of first discovery, observed behaviors (if alive), and photo or video (if available). In the event that an injured, stranded, or dead marine mammal is found by the Navy that is not in the vicinity of, or during or shortly after, MFAS, HFAS, or underwater explosive detonations, the Navy will report the same information as listed above as soon as operationally feasible and clearance procedures allow.

(b) *General Notification of Ship Strike*—In the event of a ship strike by any Navy vessel, at any time or place, the Navy shall do the following:

(1) Immediately report to NMFS the species identification (if known), location (lat/long) of the animal (or the strike if the animal has disappeared), and whether the animal is alive or dead (or unknown).

(2) Report to NMFS as soon as operationally feasible the size and length of animal, an estimate of the injury status (*ex.*, dead, injured but alive, injured and moving, unknown, etc.), vessel class/type and operational status.

(3) Report to NMFS the vessel length, speed, and heading as soon as feasible.

(4) Provide NMFS a photo or video, if equipment is available.

(c) *Event Communication Plan*—The Navy shall develop a communication plan that will include all of the communication protocols (phone trees, etc.) and associated contact information required for NMFS and the Navy to carry out the necessary expeditious communication required in the event of a stranding or ship strike, including as described in the proposed notification measures above.

(d) The Navy must conduct all monitoring and/or research required under the Letter of Authorization, including abiding by the annual NWTRC Monitoring Plan. (<http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications>)

(e) The Navy shall comply with the 2009 Integrated Comprehensive Monitoring Program (ICMP) Plan and continue to improve the program in consultation with NMFS. Changes and improvements to the program made during 2010 (as prescribed in the 2009 ICMP and otherwise deemed appropriate by the Navy and NMFS) will be described in an updated 2010 ICMP and submitted to NMFS by October 31, 2010 for review. An updated 2010 ICMP will be finalized by December 31, 2010.

(f) *Report on Monitoring required in paragraph (e) of this section*—The Navy shall submit a report annually describing the implementation and results of the monitoring required in

paragraph (d) of this section. The required submission date will be identified each year in the LOA. The Navy will standardize data collection methods across ranges to allow for comparison in different geographic locations.

(g) *Annual NWTRC Report*—The Navy will submit an Annual NWTRC Report every year. The required submission date will be identified each year in the LOA. This report shall contain the subsections and information indicated below.

(1) *ASW Summary*—This section shall include the following information as summarized from non-major training exercises (unit-level exercises, such as TRACKEXs and MIW):

(i) *Total Hours*—Total annual hours of each type of sonar source (along with explanation of how hours are calculated for sources typically quantified in alternate way (buoys, torpedoes, etc.))

(ii) *Cumulative Impacts*—To the extent practicable, the Navy, in coordination with NMFS, shall develop and implement a method of annually reporting non-major training (i.e., ULT) utilizing hull-mounted sonar. The report shall present an annual (and seasonal, where practicable) depiction of non-major training exercises geographically across NWTRC. The Navy shall include (in the NWTRC annual report) a brief annual progress update on the status of the development of an effective and unclassified method to report this information until an agreed-upon (with NMFS) method has been developed and implemented.

(2) [Reserved]

(h) *Sinking Exercises (SINKEXs)*—This section shall include the following information for each SINKEX completed that year:

(1) *Exercise Info*:

(i) Location;

(ii) Date and time exercise began and ended;

(iii) Total hours of observation by watchstanders before, during, and after exercise;

(iv) Total number and types of rounds expended/explosives detonated;

(v) Number and types of passive acoustic sources used in exercise;

(vi) Total hours of passive acoustic search time;

(vii) Number and types of vessels, aircraft, etc., participating in exercise;

(viii) Wave height in feet (high, low and average during exercise); and

(ix) Narrative description of sensors and platforms utilized for marine mammal detection and timeline illustrating how marine mammal detection was conducted.

(2) Individual marine mammal observation during SINKEX (by Navy lookouts) information:

(i) Location of sighting;

(ii) Species (if not possible—indication of whale/dolphin/pinniped);

(iii) Number of individuals;

(iv) Calves observed (y/n);

(v) Initial detection sensor;

(vi) Length of time observers maintained visual contact with marine mammal;

(vii) Wave height;

(viii) Visibility;

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

(x) Distance of marine mammal from actual detonations (or target spot if not yet detonated)—use four categories to define distance:

(A) the modeled injury threshold radius for the largest explosive used in that exercise type in that OPAREA (662 m for SINKEX in NWTRC);

(B) the required exclusion zone (1 nm for SINKEX in NWTRC);

(C) the required observation distance (if different than the exclusion zone (2 nm for SINKEX in NWTRC)); and

(D) greater than the required observed distance. For example, in this case, the observer would indicate if < 662 m, from 738 m–1 nm, from 1 nm–2 nm, and > 2 nm.

(xi) *Observed behavior*—Watchstanders will report, in plain language and without trying to categorize in any way, the observed behavior of the animals (such as animal closing to bow ride, paralleling course/speed, floating on surface and not swimming etc.), including speed and direction.

(xii) *Resulting mitigation implementation*—Indicate whether explosive detonations were delayed, ceased, modified, or not modified due to marine mammal presence and for how long.

(xiii) If observation occurs while explosives are detonating in the water, indicate munitions type in use at time of marine mammal detection.

(i) *Improved Extended Echo-Ranging System (IEER) Summary*

(1) Total number of IEER events conducted in NWTRC;

(2) Total expended/detonated rounds (buoys); and

(3) Total number of self-scuttled IEER rounds.

(j) *Explosives Summary*—The Navy is in the process of improving the methods used to track explosive use to provide increased granularity. To the extent practicable, the Navy shall provide the information described below for all of their explosive exercises. Until the Navy

is able to report in full the information below, they will provide an annual update on the Navy's explosive tracking methods, including improvements from the previous year.

(k) Total annual number of each type of explosive exercise (of those identified as part of the "specified activity" in this final rule) conducted in NWTRC; and

(2) Total annual expended/detonated rounds (missiles, bombs, etc.) for each explosive type.

(l) *NWTRC 5-Yr Comprehensive Report*—The Navy shall submit to NMFS a draft report that analyzes and summarizes all of the multi-year marine mammal information gathered during ASW and explosive exercises for which annual reports are required (Annual NWTRC Exercise Reports and NWTRC Monitoring Plan Reports). This report will be submitted at the end of the fourth year of the rule (July 2014), covering activities that have occurred through February 1, 2014.

(m) *Comprehensive National ASW Report*—By June, 2014, the Navy shall submit a draft National Report that analyzes, compares, and summarizes the active sonar data gathered (through January 1, 2014) from the watchstanders and pursuant to the implementation of the Monitoring Plans for the Northwest Training Range Complex, the Southern California Range Complex, the Atlantic Fleet Active Sonar Training, the Hawaii Range Complex, the Marianas Islands Range Complex, and the Gulf of Alaska.

(n) The Navy shall respond to NMFS comments and requests for additional information or clarification on the NWTRC Comprehensive Report, the Comprehensive National ASW report, the Annual NWTRC Exercise Report, or the Annual NWTRC Monitoring Plan Report (or the multi-Range Complex Annual Monitoring Plan Report, if that is how the Navy chooses to submit the information) if submitted within 3 months of receipt. These reports will be considered final after the Navy has addressed NMFS' comments or provided the requested information, or three months after the submittal of the draft if NMFS does not comment by then.

(o) In 2011, the Navy shall convene a Monitoring Workshop in which the Monitoring Workshop participants will be asked to review the Navy's Monitoring Plans and monitoring results and make individual recommendations (to the Navy and NMFS) of ways of improving the Monitoring Plans. The recommendations shall be reviewed by the Navy, in consultation with NMFS, and modifications to the Monitoring Plan shall be made, as appropriate.

**§ 218.116 Applications for Letters of Authorization.**

To incidentally take marine mammals pursuant to these regulations, the U.S. Citizen (as defined by § 216.103) conducting the activity identified in § 218.110(c) (*i.e.*, the Navy) must apply for and obtain either an initial Letter of Authorization in accordance with § 218.117 or a renewal under § 218.118.

**§ 218.117 Letters of Authorization.**

(a) A Letter of Authorization, unless suspended or revoked, will be valid for a period of time not to exceed the period of validity of this subpart, but must be renewed annually subject to annual renewal conditions in § 218.118.

(b) Each Letter of Authorization shall set forth:

(1) Permissible methods of incidental taking;

(2) Means of effecting the least practicable adverse impact on the species, its habitat, and on the availability of the species for subsistence uses (*i.e.*, mitigation); and

(3) Requirements for mitigation, monitoring and reporting.

(c) Issuance and renewal of the Letter of Authorization shall be based on a determination that the total number of marine mammals taken by the activity as a whole will have no more than a negligible impact on the affected species or stock of marine mammal(s).

**§ 218.118 Renewal of Letters of Authorization and adaptive management.**

(a) A Letter of Authorization issued under § 216.106 and § 218.117 of this chapter for the activity identified in § 218.110(c) will be renewed annually upon:

(1) Notification to NMFS that the activity described in the application submitted under § 218.116 will be undertaken and that there will not be a substantial modification to the described work, mitigation or monitoring undertaken during the upcoming 12 months;

(2) Receipt of the monitoring reports and notifications within the timeframes indicated in the previous LOA; and

(3) A determination by the NMFS that the mitigation, monitoring and reporting measures required under § 218.114 and the Letter of Authorization issued under §§ 216.106 and 218.117 of this chapter, were undertaken and will be undertaken during the upcoming annual period of validity of a renewed Letter of Authorization.

(b) If a request for a renewal of a Letter of Authorization issued under §§ 216.106 and 216.118 indicates that a substantial modification, as determined by NMFS, to the described work, mitigation or monitoring undertaken during the upcoming season will occur, the NMFS will provide the public a period of 30 days for review and comment on the request.

(c) A notice of issuance or denial of a renewal of a Letter of Authorization will be published in the **Federal Register**.

(d) Adaptive Management—NMFS may modify or augment the existing mitigation or monitoring measures (after consulting with the Navy regarding the practicability of the modifications) if doing so creates a reasonable likelihood of more effectively accomplishing the goals of mitigation and monitoring set forth in the preamble of these regulations. Below are some of the possible sources of new data that could contribute to the decision to modify the mitigation or monitoring measures:

(1) Results from the Navy's monitoring from the previous year (either from the NWTRC Study Area or other locations).

(2) Findings of the Monitoring Workshop that the Navy will convene in 2011.

(3) Compiled results of Navy funded research and development (R&D) studies (presented pursuant to the Integrated Comprehensive Monitoring Plan).

(4) Results from specific stranding investigations (either from the NWTRC

Study Area or other locations, and involving coincident MFAS/HFAS or explosives training or not involving coincident use).

(5) Results from the Long Term Prospective Study described in the preamble to these regulations.

(6) Results from general marine mammal and sound research (funded by the Navy or otherwise).

(7) Any information which reveals that marine mammals may have been taken in a manner, extent or number not authorized by these regulations or subsequent Letters of Authorization.

**§ 218.119 Modifications to Letters of Authorization.**

(a) Except as provided in paragraph (b) of this section, no substantive modification (including withdrawal or suspension) to the Letter of Authorization by NMFS, issued pursuant to §§ 216.106 and 218.117 of this chapter and subject to the provisions of this subpart, shall be made until after notification and an opportunity for public comment has been provided. For purposes of this paragraph, a renewal of a Letter of Authorization under § 218.118, without modification (except for the period of validity), is not considered a substantive modification.

(b) If the Assistant Administrator determines that an emergency exists that poses a significant risk to the well-being of the species or stocks of marine mammals specified in § 218.112(c), a Letter of Authorization issued pursuant to §§ 216.106 and 218.117 of this chapter may be substantively modified without prior notification and an opportunity for public comment. Notification will be published in the **Federal Register** within 30 days subsequent to the action.

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