

**DEPARTMENT OF THE INTERIOR****Fish and Wildlife Service****50 CFR Parts 21 and 22**

[FWS-R9-MB-2009-0002; 91200-1231-9BPP]

RIN 1018-AW44

**Migratory Bird Permits; Changes in the Regulations Governing Falconry***Correction*

In rule document 2010-12 beginning on page 927 in the issue of Thursday, January 7, 2010, make the following corrections:

1. On page 929, in the first column, under the **Revisions to the Falconry Regulations** heading, in the third line, “(d)(1)(ii)(A)(4)” should read “(d)(1)(ii)(A)(4)”.

2. On the same page, in the second column, in paragraph (5), in the second line, “§21.29(d)(1)(ii)(A)(4)” should read “§21.29(d)(1)(ii)(A)(4)”.

**§21.29 [Corrected]**

3. On page 931, in §21.29, in the first column, in amendatory instruction 3., in paragraph a., in the third line, “(c)(3)(i)(C)(1), (2), and (3)” should read “(c)(3)(i)(C)(1), (2), and (3)”.

4. On the same page, in the same section, in the same column, in amendatory instruction 3., in paragraph e., in the third line, “(c)(3)(iv)(A)(1) and (2)” should read “(c)(3)(iv)(A)(1) and (2)”.

5. On the same page, in the same section, in the same column, in amendatory instruction 3., in paragraph f., in the second line, “(c)(3)(iv)(A)(2)” should read “(c)(3)(iv)(A)(2)”.

6. On the same page, in the same section, in the same column, in amendatory instruction 3., in paragraph k., in the third and fourth lines, “(d)(1)(ii)(A)(1), (2), (3), and (4)” should read “(d)(1)(ii)(A)(1), (2), (3), and (4)”.

7. On the same page, in the same section, in the same column, in amendatory instruction 3., in paragraph m., in the third line, “(d)(1)(ii)(B)(1) and (2)” should read “(d)(1)(ii)(B)(1) and (2)”.

8. On the same page, in the same section, in the same column, in amendatory instruction 3., in paragraph m., in the fifth line, “(d)(1)(ii)(D)(1), (2), and (3)” should read “(d)(1)(ii)(D)(1), (2), and (3)”.

9. On the same page, in the same section, in the second column, in paragraph s., in the third line, “(e)(3)(vi)(C)(1) and (2)” should read “(e)(3)(vi)(C)(1) and (2)”.

10. On the same page, in the same section, in the third column, in

paragraph (4), in the first line, “(4)” should read “(4)”.

[FR Doc. C1-2010-12 Filed 1-20-10; 8:45 am]

**BILLING CODE 1505-01-D****DEPARTMENT OF COMMERCE****National Oceanic and Atmospheric Administration****50 CFR Part 218**

RIN 0648-AW80

**Taking and Importing Marine Mammals; U.S. Naval Surface Warfare Center Panama City Division Mission Activities**

**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 at the Naval Surface Warfare Center Panama City Division (NSWC PCD) for the period of January 2010 through January 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 and their habitat, as well as requirements pertaining to the monitoring and reporting of such taking.

**DATES:** Effective January 21, 2010, through January 21, 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*). Additionally, the Navy's LOA application may be obtained by visiting the Internet at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications>.

[www.nmfs.noaa.gov/pr/permits/incidental.htm#applications](http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications).

**FOR FURTHER INFORMATION CONTACT:**

Shane Guan, Office of Protected Resources, NMFS, (301) 713-2289, ext. 137.

**SUPPLEMENTARY INFORMATION:** Extensive supplementary information was provided in the proposed rule for this activity, which was published in the **Federal Register** on Thursday, April 30, 2009 (74 FR 20156). 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. Any information that has changed since the proposed rule was published will be addressed herein. Additionally, this final rule contains a section that responds to the comments received during the public comment period.

**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 NDAA (Pub. L. 108-136) removed 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**

On April 1, 2008, NMFS received an application, which was subsequently amended on February 12, 2009 with additional information, from the Navy requesting authorization for the take of 10 species of cetaceans incidental to the NSWC PCD's Research, Development, Test and Evaluation (RDT&E) mission activities over the course of 5 years. These RDT&E activities are classified as military readiness activities. The Navy states that these RDT&E activities may cause various impacts to marine mammal species in the proposed action area (e.g., mortality, Level A and B harassment). The Navy requests an authorization to take individuals of these cetacean species by Level B Harassment. Further, the Navy requests

authorization to take 2 bottlenose dolphins, 2 Atlantic spotted dolphins, 1 pantropical spotted dolphin, and 1 spinner dolphin per year by Level A harassment (injury), as a result of the proposed mission activities. Please refer to Tables 6–3, 6–4, 6–6, 6–7, 6–8, and 6–9 of the Letter of Authorization (LOA) Addendum for detailed information of the potential marine mammal exposures from the NSWC PCD mission activities per year. However, due to the proposed mitigation and monitoring measures, NMFS estimates that the take of marine mammals is likely to be lower than the amount requested. Although the Navy requests authorization to take marine mammals by mortality, NMFS does not expect any animals to be killed, and NMFS is not proposing to authorize any mortality (severe lung injury) incidental to the Navy's NSWC PCD mission activities.

#### **Background of Navy 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 20156; April 30, 2009; pages 20156–20157).

#### **Description of the 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 levels of the RDT&E activities. These RDT&E activities consist of surface operations, sonar operations, and ordnance operations. The narrative description of the action contained in the proposed rule has not changed. Tables 1 and 2 summarize the nature and levels of the sonar and ordnance operations. The level of the surface operations remains 7,443 hours per year, and is qualitatively described in the proposed rule (74 FR 20157; April 30, 2009) with no changes.

TABLE 1—HOURS OF SONAR OPERATIONS BY REPRESENTATIVE SYSTEM PER YEAR

System	Annual operating hours (territorial water)	Annual operating hours (non-territorial water)
AN/SQS-53/56 Kingfisher .....	3	1
Sub-bottom profiler (2–9 kHz) .....	21	1
REMUS SAS-LF .....	12	0
REMUS Modem .....	25	12
Sub-bottom profiler (2–16 kHz) .....	24	1
AN/SQQ-32 .....	30	1
REMUS-SAS-LF .....	20	0
SAS-LF .....	35	15
AN/WLD-1 RMS-ACL .....	33.5	5
BPAUV Sidescan .....	25	38
TVSS .....	15	16.5
F84Y .....	15	15
BPAUV Sidescan .....	25	0
REMUS-SAS-HF .....	10	25
SAS-HF .....	11.5	15
AN/AQS-20 .....	545	15
AN/WLD-11 RMS Navigation .....	15	0
BPAUV Sidescan .....	30	25

Table 2. Description of NSWC PCD Proposed Action

	Territorial Waters						Non-Territorial Waters						Total						
Sonar Ops (hrs/yr)	Mid (1-10 kHz)			High (>10 kHz)			Mid (1-10 kHz)			High (>10 kHz)			Hrs/yr						
	73			822			4			181			1,080*						
Detonations						Detonations						Item/yr							
Ordnance Ops (dets/yr) (line/yr)	Range 1 (0-10 lb) (dets/yr)	Range 2 (11-75 lb) (dets/yr)	Range 3 (76-600 lb) (dets/yr)			Range 1 (0-10 lb) (dets/yr)	Range 2 (11-75 lb) (dets/yr)	Range 3 (76-600 lb) (dets/yr)			Item/yr								
	51	3	0			0	0	16			70								
Line charges**						Line charges**						Item/yr							
	3						0						3						
Projectile firing (rnds/yr)	5 in	40 mm	30 mm	20 mm	76 mm	25 mm	Small arms	5 in	40 mm	30 mm	20 mm	76 mm	25 mm	Item/yr					
	0	0	0	0	0	0	0	60	480	600	2,967	240	525	6,000					
														10,872					

dets = detonations; hrs = hours; lb = pounds; rnds = rounds; ops = operations; yr = year; kHz = kilohertz; kg = kilogram

\*An additional 150 hours (144 territorial hrs/6 non-territorial hours) for jamming and mechanical minesweeping devices occurring over broad frequency ranges are not included in this estimate. These systems were not included in the analysis because no power source is used to generate the acoustic output and the mechanical device generates the acoustic impact similar to Navy vessels. Movement of vessels through the water is not associated with acoustic impact on marine mammals; mechanical devices would not affect marine mammals.

\*\*Line charges = 794 kg (1,750 lb) net explosive weight, which is evenly distributed along a 107-m (350-ft) detonation cord.

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

There are 30 marine mammal species with possible or confirmed occurrence in the NSWC PCD Study Area. As indicated in Table 3, there are 29 cetacean species (7 mysticetes and 22 odontocetes) and one sirenian species. Table 3 also includes the federal status of these marine mammal species. Seven marine mammal species listed as federally endangered under the Endangered Species Act (ESA) occur in the study area: the humpback whale, North Atlantic right whale, sei whale,

fin whale, blue whale, sperm whale, and West Indian manatee. Of these 30 species with occurrence records in the NSWC PCD Study Area, 22 species regularly occur here. These 22 species are: Bryde's whale, sperm whale, pygmy sperm whale, dwarf sperm whale, Cuvier's beaked whale, Gervais' beaked whale, Sowerby's beaked whale, Blainville's beaked whale, killer whale, false killer whale, pygmy killer whale, short-finned pilot whale, Risso's dolphin, melon-headed whale, rough-toothed dolphin, bottlenose dolphin, Atlantic spotted dolphin, pantropical

spotted dolphin, striped dolphin, spinner dolphin, Clymene dolphin, and Fraser's dolphin. The remaining 8 species (i.e., North Atlantic right whale, humpback whale, sei whale, fin whale, blue whale, minke whale, True's beaked whale, and West Indian manatee) are extralimital and are excluded from further consideration of impacts from the NSWC PCD testing mission. 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 20156; pages 20160–20161).

TABLE 3—MARINE MAMMAL SPECIES FOUND IN THE NSWC PCD STUDY AREA

Family and scientific name	Common name	Federal status
Order Cetacea		
Suborder Mysticeti (baleen whales)		
<i>Eubalaena glacialis</i> .....	North Atlantic right whale .....	Endangered.
<i>Megaptera novaeangliae</i> .....	Humpback whale .....	Endangered.
<i>Balaenoptera acutorostrata</i> .....	Minke whale.	
<i>B. brydei</i> .....	Bryde's whale.	
<i>B. borealis</i> .....	Sei whale .....	Endangered.
<i>B. physalus</i> .....	Fin whale .....	Endangered.
<i>B. musculus</i> .....	Blue whale .....	Endangered.
Suborder Odontoceti (toothed whales)		
<i>Physeter macrocephalus</i> .....	Sperm whale .....	Endangered.
<i>Kogia breviceps</i> .....	Pygmy sperm whale.	
<i>K. sima</i> .....	Dwarf sperm whale.	
<i>Ziphius cavirostris</i> .....	Cuvier's beaked whale.	
<i>Mesoplodon europaeus</i> .....	Gervais' beaked whale.	
<i>M. mirus</i> .....	True's beaked whale.	
<i>M. bidens</i> .....	Sowerby's beaked whale.	
<i>M. densirostris</i> .....	Blainville's beaked whale.	

TABLE 3—MARINE MAMMAL SPECIES FOUND IN THE NSWC PCD STUDY AREA—Continued

Family and scientific name	Common name	Federal status
<i>Steno bredanensis</i> .....	Rough-toothed dolphin .....	
<i>Tursiops truncatus</i> .....	Bottlenose dolphin.	
<i>Stenella attenuata</i> .....	Pantropical spotted dolphin.	
<i>S. frontalis</i> .....	Atlantic spotted dolphin.	
<i>S. longirostris</i> .....	Spinner dolphin.	
<i>S. clymene</i> .....	Clymene dolphin.	
<i>S. coeruleoalba</i> .....	Striped dolphin.	
<i>Lagenodelphis hosei</i> .....	Fraser's dolphin.	
<i>Grampus griseus</i> .....	Risso's dolphin.	
<i>Peponocephala electra</i> .....	Melon-headed whale.	
<i>Feresa attenuata</i> .....	Pygmy killer whale.	
<i>Pseudorca crassidens</i> .....	False killer whale.	
<i>Orcinus orca</i> .....	Killer whale.	
<i>G. macrorhynchus</i> .....	Short-finned pilot whale.	
Order Sirenia		
<i>Trichechus manatus</i> .....	West Indian manatee .....	Endangered.

### A Brief Background on Sound

An understanding of the basic properties of underwater sound is necessary to comprehend many of the concepts and analyses presented in this document. A detailed description of this topic was provided in the proposed rule (74 FR 20156; pages 20161–20162) and is, therefore, not repeated herein.

### Potential Impacts to Marine Mammal Species

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 in the NSWC PCD Study Area); and (4) to prescribe requirements pertaining to monitoring and reporting.

In the Potential Impacts to Marine Mammal Species section of the proposed rule, NMFS included a qualitative discussion of the different ways that sonar and underwater explosive detonations from ordnance operations and projectile firing may

potentially affect marine mammals (See 74 FR 20156; April 30, 2009; pages 20162–20178). Marine mammals may experience direct physiological effects (such as threshold shift), acoustic masking, impaired communications, stress responses, and behavioral disturbance. The information contained in Potential Impacts to Marine Mammal Species section from sonar operations and underwater detonation from ordnance operations and projectile firing from the proposed rule has not changed.

Additional analyses on potential impacts to marine mammals from vessel movement within the NSWC PCD Study Area are added below.

#### Vessel Movement

There are limited data concerning marine mammal behavioral responses to vessel traffic and vessel noise, and a lack of consensus among scientists with respect to what these responses mean or whether they result in short-term or long-term adverse effects. In those cases where there is a busy shipping lane or where there is large amount of vessel traffic, marine mammals may experience acoustic masking (Hildebrand, 2005) if they are present in the area (*e.g.*, killer whales in Puget Sound; Foote *et al.*, 2004; Holt *et al.*, 2008). In cases where vessels actively approach marine mammals (*e.g.*, whale watching or dolphin watching boats), scientists have documented that animals exhibit altered behavior such as increased swimming speed, erratic movement, and active avoidance behavior (Bursk, 1983; Acevedo, 1991; Baker and MacGibbon, 1991; Trites and Bain, 2000; Williams *et al.*, 2002; Constantine *et al.*, 2003), reduced blow interval (Ritcher *et al.*, 2003), disruption of normal social behaviors (Lusseau, 2003; 2006), and the shift of behavioral

activities which may increase energetic costs (Constantine *et al.*, 2003; 2004)). A detailed review of marine mammal reactions to ships and boats is available in Richardson *et al.* (1995). For each of the marine mammal's taxonomy groups, Richardson *et al.* (1995) provided the following assessment regarding cetacean reactions to vessel traffic:

**Toothed whales:** “In summary, toothed whales sometimes show no avoidance reaction to vessels, or even approach them. However, avoidance can occur, especially in response to vessels of types used to chase or hunt the animals. This may cause temporary displacement, but we know of no clear evidence that toothed whales have abandoned significant parts of their range because of vessel traffic.”

**Baleen whales:** “When baleen whales receive low-level sounds from distant or stationary vessels, the sounds often seem to be ignored. Some whales approach the sources of these sounds. When vessels approach whales slowly and nonaggressively, whales often exhibit slow and inconspicuous avoidance maneuvers. In response to strong or rapidly changing vessel noise, baleen whales often interrupt their normal behavior and swim rapidly away. Avoidance is especially strong when a boat heads directly toward the whale.”

It is important to recognize that behavioral responses to stimuli are complex and influenced to varying degrees by a number of factors such as species, behavioral contexts, geographical regions, source characteristics (moving or stationary, speed, direction, etc.), prior experience of the animal, and physical status of the animal. For example, studies have shown that beluga whales reacted differently when exposed to vessel noise and traffic. In some cases, naïve beluga

whales exhibited rapid swimming from ice-breaking vessels up to 80 km away, and showed changes in surfacing, breathing, diving, and group composition in the Canadian high Arctic where vessel traffic is rare (Finley *et al.*, 1990). In other cases, beluga whales were more tolerant of vessels, but differentially responsive by reducing their calling rates, to certain vessels and operating characteristics (especially older animals) in the St. Lawrence River where vessel traffic is common (Blane and Jaakson, 1994). In Bristol Bay, Alaska, beluga whales continued to feed when surrounded by fishing vessels and resisted dispersal even when purposefully harassed (Fish and Vania, 1971).

In reviewing more than 25 years of whale observation data, Watkins (1986) concluded that whale reactions to vessel traffic were "modified by their previous experience and current activity: Habituation often occurred rapidly, attention to other stimuli or preoccupation with other activities sometimes overcame their interest or wariness of stimuli." Watkins noticed that over the years of exposure to ships in the Cape Cod area, minke whales (*Balaenoptera acutorostrata*) changed from frequent positive (such as approaching vessels) interest to generally uninterested reactions; finback whales (*B. physalus*) changed from mostly negative (such as avoidance) to uninterested reactions; right whales (*Eubalaena glacialis*) apparently continued the same variety of responses (negative, uninterested, and positive responses) with little change; and humpbacks (*Megaptera novaeangliae*) dramatically changed from mixed responses that were often negative to often strongly positive reactions. Watkins (1986) summarized that "whales near shore, even in regions with low vessel traffic, generally have become less wary of boats and their noises, and they have appeared to be less easily disturbed than previously. In particular locations with intense shipping and repeated approaches by boats (such as the whale-watching areas of Stellwagen Bank), more and more whales had P [positive] reactions to familiar vessels, and they also occasionally approached other boats and yachts in the same ways."

In the case of the NSWC PCD Study Area, naval vessel traffic is expected to be much lower than in areas where there are large shipping lanes and large numbers of fishing vessels and/or recreational vessels. Nevertheless, the proposed action area is well traveled by a variety of commercial and recreational vessels, so marine mammals in the area

are expected to be habituated to vessel noise.

As described in the proposed rule, typical vessel movement occurring at the surface includes the deployment or towing of mine counter-measure equipment, retrieval of equipment, and clearing and monitoring for non-participating vessels. The Navy estimates a total of up to 7,443 hours (310 vessel days) of surface operations per year. These operations are widely dispersed throughout the NSWC PCD Study Area.

Moreover, naval vessels transiting the study area or engaging in RDT&E activities will not actively or intentionally approach a marine mammal or change speed drastically.

The final rule contains additional mitigation measures requiring Navy vessels to keep at least 500 yards (460 m) away from any observed whale and at least 200 yards (183 m) from marine mammals other than whales, and avoid approaching animals head-on. Although the radiated sound from the vessels will be audible to marine mammals over a large distance, it is unlikely that animals will respond behaviorally to low-level distant shipping noise as the animals in the area are likely to be habituated to such noises (Nowacek *et al.*, 2004). In light of these facts, NMFS does not expect the Navy's vessel movements to result in Level B harassment.

#### **Mitigation**

In order to issue an incidental take authorization (ITA) under Section 101(a)(5)(A) of the MMPA, NMFS must prescribe regulations setting 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 amended the MMPA as it relates to military readiness activities and the incidental take authorization 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 NSWC PCD's RDT&E activities are considered military readiness activities.

NMFS reviewed the Navy's proposed NSWC PCD's RDT&E activities and the proposed NSWC PCD's mitigation measures presented in the Navy's application to determine whether the activities and mitigation measures were capable of achieving the least practicable adverse effect on marine mammals.

Any mitigation measure prescribed by NMFS should be known to accomplish, have a reasonable likelihood of accomplishing (based on current science), or contribute to the accomplishment of one or more of the general goals listed below:

(1) Avoidance or minimization of injury or death of marine mammals wherever possible (goals (2), (3), and (4) may contribute to this goal).

(2) A reduction in the numbers of marine mammals (total number or number at biologically important time or location) exposed to underwater detonations or other activities expected to result in the take of marine mammals (this goal may contribute to (1), above, or to reducing harassment takes only).

(3) A reduction in the number of times (total number or number at biologically important time or location) individuals would be exposed to underwater detonations or other activities expected to result in the take of marine mammals (this goal may contribute to (1), above, or to reducing harassment takes only).

(4) A reduction in the intensity of exposures (either total number or number at biologically important time or location) to underwater detonations or other activities expected to result in the take of marine mammals (this goal may contribute to (1), above, or to reducing the severity of harassment takes only).

(5) A reduction in adverse effects to marine mammal habitat, paying special attention to the food base, activities that block or limit passage to or from biologically important areas, permanent destruction of habitat, or temporary destruction/disturbance of habitat during a biologically important time.

(6) For monitoring directly related to mitigation—an increase in the probability of detecting marine mammals, thus allowing for more effective implementation of the mitigation (shut-down zone, etc.).

NMFS reviewed the Navy's proposed mitigation measures, which included 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 "military-readiness activity."

The Navy's proposed mitigation measures were described in detail in the proposed rule (74 FR 20156, pages 20183–20185). The Navy's measures address personnel training, lookout and watchstander responsibilities, operating procedures for RDT&E activities using sonar and underwater detonations of explosives and projectile firing, and

mitigation related to vessel traffic. No changes have been made to the mitigation measures described in the proposed rule except the following.

In the Personnel Training section, bullet number 3 is revised to read as:

- Marine Observers shall be trained in marine mammal recognition. Marine Observer training shall include completion of the Marine Species Awareness Training, instruction on governing laws and policies, and overview of the specific Gulf of Mexico species present, and observer roles and responsibilities.

This change is to reflect the NSWC PCD's RDT&E activities that use Marine Observers instead of watchstanders and lookouts in the range complexes training. In addition, a Personal Qualification Standard Program mentioned in the proposed rule (74 FR 20156; April 30, 2009; page 20184) does not exist for civilian Marine Observers.

In response to a comment from the Marine Mammal Commission on the Navy's Virginia Capes Range Complex training activities, NMFS will require the Navy to suspend its activities immediately if a marine mammal is injured or killed as a result of the proposed Navy RDT&E activities (e.g., instances in which it is clear that munitions explosions caused the injury or death), the Navy shall suspend its activities immediately and report such incident to NMFS.

In addition, a general condition is added to the Operating Procedures section to read: "The Test Director or the Test Director's designee shall maintain the logs and records documenting RDT&E activities should they be required for event reconstruction purposes. Logs and records will be kept for a period of 30 days following completion of a RDT&E mission activity."

Also, since the term "Aircraft Control Units" is a fleet specific term and is not used during RDT&E activities, bullet number 7 of the Operating Procedures section in the proposed rule (74 FR 20156; April 30, 2009; page 20184) has been changed to read:

- Marine mammal detections shall be immediately reported to the Test Director or the Test Director's designee for further dissemination to vessels in the vicinity of the marine species as appropriate where it is reasonable to conclude that the course of the vessel will likely result in a closing of the distance to the detected marine mammal.

The following conditions under the Operating Procedures section, which appeared in the proposed rule (74 FR 20156; April 30, 2009; page 20184),

have been removed because the Navy indicated that sonobuoys and helicopter dipping sonar are no longer part of the NSWC PCD RDT&E activities.

- Aircraft with deployed sonobuoys will use only the passive capability of sonobuoys when marine mammals are detected within 200 yards of the sonobuoy.

- Helicopters shall observe/survey the vicinity of mission activities for 10 minutes before the first deployment of active (dipping) sonar in the water.

- Helicopters shall not dip their sonar within 200 yards (183 m) of a marine mammal and shall cease pinging if a marine mammal closes within 200 yards (183 m) after pinging has begun.

The section titled "Proposed Mitigation Measures for Surface Operations and Other Activities" is changed to "Proposed Mitigation Measures for Surface Operations" to clarify the section (74 FR 20156; April 30, 2009; page 20185). One condition under this section, "(h) All vessels will maintain logs and records documenting RDT&E activities should they be required for event reconstruction purposes. Logs and records shall be kept for a period of 30 days following completion of a RDT&E mission activity," is deleted as the Navy points out that small vessels do not have the capability to maintain records. Instead, RDT&E activity records will be maintained by the Test Directors as discussed above.

NMFS has determined that these mitigation measures are adequate means of effecting the least practicable adverse impacts on marine mammal species or stocks and their habitat while also considering personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

## Monitoring

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

Monitoring measures prescribed by NMFS should accomplish one or more of the following general goals:

- An increase in the probability of detecting marine mammals, both within

the safety zone (thus allowing for more effective implementation of the mitigation) and in general to generate more data to contribute to the analyses mentioned below.

- An increase in our understanding of how many marine mammals are likely to be exposed to levels of HFAS/MFAS (or explosives or other stimuli) that we associate with specific adverse effects, such as behavioral harassment, TTS, or PTS.

- An increase in our understanding of how marine mammals respond to HFAS/MFAS (at specific received levels), explosives, or other stimuli expected to result in take and how anticipated adverse effects on individuals (in different ways and to varying degrees) may impact the population, species, or stock (specifically through effects on annual rates of recruitment or survival) through any of the following methods:

- Behavioral observations in the presence of HFAS/MFAS compared to observations in the absence of sonar (need to be able to accurately predict received level and report bathymetric conditions, distance from source, and other pertinent information).

- Physiological measurements in the presence of HFAS/MFAS compared to observations in the absence of sonar (need to be able to accurately predict received level and report bathymetric conditions, distance from source, and other pertinent information), and/or

- Pre-planned and thorough investigation of stranding events that occur coincident to naval activities.

- Distribution and/or abundance comparisons in times or areas with concentrated HFAS/MFAS versus times or areas without HFAS/MFAS.

- An increased knowledge of the affected species.

- An increase in our understanding of the effectiveness of certain mitigation and monitoring measures.

## Monitoring Plan for the NSWC PCD Study Area

As NMFS indicated in the proposed rule, the Navy has (with input from NMFS) fleshed out the details of and made improvements to the NSWC PCD Monitoring Plan. Additionally, NMFS and the Navy have incorporated a suggestion from the public, which recommended the Navy hold a peer review workshop to discuss the Navy's Monitoring Plans for the multiple range complexes and training exercises in which the Navy would receive ITAs (see Monitoring Workshop section). The final NSWC PCD Monitoring Plan, which is summarized below, may be viewed at <http://www.nmfs.noaa.gov/>

*pr/permits/incidental.htm#applications.* The Navy plans to implement all of the components of the Monitoring Plan; however, only the marine mammal components (not the sea turtle components) will be required by the MMPA regulations and associated LOAs.

A summary of the monitoring methods required for use during RDT&E activities in the NSWC PCD Study Area are described below. These methods include a combination of individual elements that are designed to allow a comprehensive assessment.

#### *Visual Surveys—Vessel, Aerial and Shore-Based*

The Navy shall visually survey a minimum of 2 HFAS/MFAS activities and 2 explosive events per year. If the 53C sonar was being operated, such activity must be monitored as one of the HFAS/MFAS activities. For explosive events, one of the monitoring measures shall be focused on a multiple detonation event.

For underwater detonations, the size of the survey area shall be pre-determined based upon the type of explosive event planned and the amount of NEW used. As a conservative measure, the largest zone of influence (ZOI) associated with the upper limit of each NEW shall be surveyed during the RDT&E activities. For example, the Navy would be required to observe the following ZOIs and ensure they are clear of marine mammals prior to conducting explosive ordnance RDT&E activities: 2,863 m for NEW between 76–600 lb; 997 m for NEW between 11–75 lb; and 345 m for NEW less than 11 lb.

If animal(s) are observed prior to or during an explosion, a focal follow of that individual or group shall be conducted to record behavioral responses. The Navy will not begin activities if animals are observed within these ZOIs of the events listed above.

The visual survey team shall collect the same data that are collected by Navy marine observers, including but not limited to: (1) Location of sighting; (2) species; (3) number of individuals; (4) number of calves present, if any; (5) duration of sighting; (6) behavior of marine animals sighted; (7) direction of travel; (8) environmental information associated with sighting event including Beaufort sea state, wave height, swell direction, wind direction, wind speed, glare, percentage of glare, percentage of cloud cover; and (9) when in relation to the Navy RDT&E activities did the sighting occur (before, during or after RDT&E activities). Animal sightings and relative distance from a particular detonation site shall be used post-

survey to estimate the number of marine mammals exposed to different received levels (energy and pressure of discharge based on distance to the source, bathymetry, oceanographic conditions and the type and size of detonation) and their corresponding behavior. For vessel-based surveys a passive acoustic system (hydrophone or towed array) or sonobuoys shall be used if operationally feasible to help determine if marine mammals are in the area before and after a detonation event.

Although photo-identification studies are not typically a component of Navy exercise monitoring surveys, the Navy supports using the contracted platforms to obtain opportunistic data collection. Therefore, any digital photographs that are taken of marine mammals during visual surveys shall be provided to local researchers for their regional research.

#### 1. Aerial Surveys

During sonar operations, an aerial survey team shall fly transects relative to a Navy surface vessel that is transmitting HFA/MFA sonar. The aerial survey team shall collect both visual sightings and behavioral observations of marine animals. These transect data will provide an opportunity to collect data of marine mammals at different received levels and their behavioral responses and movement relative to the Navy vessel's position. Surveys shall include time with and without active sonar in order to compare density, geographical distribution and behavioral observations. After declassification, related sonar transmissions shall be used to calculate exposure levels.

Behavioral observation methods shall involve three professionally trained marine mammal observers and a pilot. Two observers will observe behaviors, one with hand-held binoculars and one with the naked eye. If there is more than one whale, each observer shall record respirations of different animals, ideally from the same animal he/she is observing. In the case of large groups of delphinids, group behavior, speed, orientation, etc., shall be recorded. An observer shall use a video camera to record behaviors in real time. Two external microphones will be used and attached to the video camera to record vocal behavioral descriptions on two different channels of the video camera. The videotape shall be time-stamped and observers shall also call out times. The third observer shall record notes, environmental data, and operate a laptop connected to a GPS and the plane's altimeter.

Detailed behavioral focal observations of cetaceans shall be recorded,

including the following variables where possible: Species, group size and composition (number of calves, etc.), latitude/longitude, surface and dive durations and times, number and spacing/times of respirations, conspicuous behaviors (e.g., breach, tail slap, etc.), behavioral states, orientation and changes in orientation, estimated group travel speed, inter-individual distances, defecations, social interactions, aircraft speed, aircraft altitude, distance to focal group (using the plane's radar) and any unusual behaviors.

In addition, to measure whether marine mammals are displaced geographically as a result of sonar operations, systematic line-transect aerial surveys shall be conducted on the two days before and a variation of one to five days after a NSWC PCD RDT&E testing activity to collect relative density data in the testing area for marine mammals in the area. Attempts shall be made to survey during a test event when operationally feasible during the NSWC PCD RDT&E activities. One survey day following the mission activity event shall be devoted to flying coastlines nearest the mission event to look for potential marine mammal strandings. If a stranding is observed, an assessment of the animal's condition (alive, injured, dead, and/or decayed) shall be immediately reported to the Navy for appropriate action and the information will be transmitted immediately to NMFS.

#### 2. Vessel Surveys

As with the aerial surveys, the vessel surveys shall be designed to maximize detections of any target species near mission activity events for focal follows. Systematic transects shall be used to locate marine mammals, and, the survey should deviate from transect protocol to collect behavioral data particularly if a Navy vessel is visible on the horizon or closer. The team shall go off effort for photo-id and close approach 'focal animal follows' as feasible, and when marine animal encounters occur in proximity to the vessel. While in focal follow mode, observers shall gather detailed behavioral data from the animals, for as long as the animal allows. Analysis of behavioral observations shall be made after the RDT&E event. While the Navy vessels are within view, attempts shall be made to position the dedicated survey vessel in the best possible way to obtain focal follow data in the presence of the NSWC PCD test event. If Navy vessels are not in view, then the vessel shall begin a systematic line transect survey within the area to assess marine mammal

occurrence and observe behavior. The goal of this part of the survey is to observe marine mammals that may not have been exposed to HFAS/MFAS or explosions. Therefore, post-analysis shall focus on how the location, speed and vector of the survey vessel and the location and direction of the sonar source (e.g. Navy surface vessel) relates to the animal. Any other vessels or aircraft observed in the area will also be documented.

### 3. Shore-Based Surveys

If explosive events are planned to occur adjacent to nearshore areas where there are elevated coastal structures (e.g. lookout tower at Eglin Air Force Base) or topography, then shore-based monitoring, using binoculars or theodolite, may be used to augment other visual survey methods.

#### *Passive Acoustic Monitoring*

The Navy shall visually survey a minimum of 2 HFAS/MFAS activities and 2 explosive events per year. If the 53C sonar was being operated, such activity must be monitored as one of the HFAS/MFAS activities. For explosive events, one of the monitoring measures shall be focused on a multiple detonation event.

While conducting passive acoustic monitoring (PAM), the array shall be deployed for each of the days the ship is at sea. The array shall be able to detect low frequency vocalizations (less than 1,000 Hertz) for baleen whales and relatively high frequency vocalizations (up to 30 kilohertz) for odontocetes such as sperm whales. Since the publishing of the proposed rule (74 FR 20156; April 30, 2009; page 20188), the Navy stated that it does not have a working bottom set hydrophone array to perform the required PAM. Therefore, the language regarding the equipment used for PAM is changed to: 'The Navy shall use towed or over-the-side passive acoustic monitoring device/hydrophone array when feasible in the NSWC PCD Study Area for PAM.'

#### *Marine Mammal Observer on Navy Vessels*

Civilian Marine Mammal Observers (MMOs) aboard Navy vessels shall be used to research the effectiveness of Navy marine observers, as well as for data collection during other monitoring surveys.

MMOs shall be field-experienced observers who are Navy biologists or contracted observers. These civilian MMOs shall be placed alongside existing Navy marine observers during a sub-set of NSWC PCD RDT&E activities. This can only be done on certain vessels

and observers may be required to have security clearance. Use of MMOs will verify Navy marine observer sighting efficiency, offer an opportunity for more detailed species identification, provide an opportunity to bring animal protection awareness to the vessels' crew, and provide the opportunity for an experienced biologist to collect data on marine mammal behavior. Data collected by the MMOs is anticipated to assist the Navy with potential improvements to marine observer training as well as providing the marine observers with a chance to gain additional knowledge of marine mammals.

Events selected for MMO participation will be an appropriate fit in terms of security, safety, logistics, and compatibility with NSWC PCD RDT&E activities. The MMOs shall not be part of the Navy's formal reporting chain of command during their data collection efforts and Navy marine observers shall follow their chain of command in reporting marine mammal sightings. Exceptions shall be made if an animal is observed by the MMO within the shutdown zone and was not seen by the Navy marine observer. The MMO shall inform the marine observer of the sighting so that appropriate action may be taken by the chain of command. For less biased data, it is recommended that MMOs should schedule their daily observations to duplicate the Navy marine observers' schedule.

Civilian MMOs shall be aboard Navy vessels involved in the study. As described earlier, MMOs shall meet and adhere to necessary qualifications, security clearance, logistics and safety concerns. MMOs shall monitor for marine mammals from the same height above water as the marine observers and as all visual survey teams, they shall collect the same data collected by Navy marine observers, including but not limited to: (1) Location of sighting; (2) species (if not possible, identification of whale or dolphin); (3) number of individuals; (4) number of calves present, if any; (5) duration of sighting; (6) behavior of marine animals sighted; (7) direction of travel; (8) environmental information associated with sighting event including Beaufort sea state, wave height, swell direction, wind direction, wind speed, glare, percentage of glare, percentage of cloud cover; and (9) when in relation to the Navy RDT&E activities did the sighting occur (before, during or after detonations/exercise).

#### *Monitoring Workshop*

During the public comment period on past proposed rules for Navy actions (such as the Hawaii Range Complex

(HRC) and Southern California Range Complex (SOCAL) proposed rules), NMFS received recommendations that a workshop or panel be convened to solicit input on the monitoring plan from researchers, experts, and other interested parties. The NSWC PCD RDT&E proposed rule included an adaptive management component and both NMFS and the Navy believe that a workshop would provide a means for Navy and NMFS to consider input from participants in determining whether (and if so, how) to modify monitoring techniques to more effectively accomplish the goals of monitoring set forth earlier in the document. NMFS and the Navy believe that this workshop is valuable in relation to all of the Range Complexes and major training exercise rules and LOAs that NMFS is working on with the Navy at this time, and consequently this single Monitoring Workshop will be included as a component of all of the rules and LOAs that NMFS will be processing for the Navy in the next year or so.

The Navy, with guidance and support from NMFS, will convene a Monitoring Workshop, including marine mammal and acoustic experts as well as other interested parties, in 2011. The Monitoring Workshop participants will review the monitoring results from the previous two years of monitoring pursuant to the NSWC PCD RDT&E rule as well as monitoring results from other Navy rules and LOAs (e.g., AFAST, SOCAL, HRC, and other rules). 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.

#### *Integrated Comprehensive Monitoring Program*

In addition to the site-specific Monitoring Plan for the NSWC PCD Study Area, the Navy has completed the Integrated Comprehensive Monitoring Program (ICMP) Plan by the end of 2009. The ICMP was developed by the Navy, with Chief of Naval Operations Environmental Readiness Division (CNO-N45) taken the lead. The program does not duplicate the monitoring plans

for individual areas (e.g. AFAST, HRC, SOCAL); instead it is to provide the overarching coordination that will support compilation of data from both range-specific monitoring plans as well as Navy funded research and development (R&D) studies. The ICMP will coordinate the monitoring program's progress towards meeting its goals and developing a data management plan. The ICMP will be evaluated annually to provide a matrix for progress and goals for the following year, and will make recommendations on adaptive management for refinement and analysis of the monitoring methods.

The primary objectives of the ICMP are to:

- Monitor and assess the effects of Navy activities on protected species;
- Ensure that data collected at multiple locations is collected in a manner that allows comparison between and among different geographic locations;
- Assess the efficacy and practicality of the monitoring and mitigation techniques;
- Add to the overall knowledge-base of marine species and the effects of Navy activities on marine species.

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/marine observer data, as well as new information from other Navy programs (e.g., R&D), and other appropriate newly published information.

In combination with the 2011 Monitoring Workshop and the adaptive management component of the NSWC PCD RDT&E rule and the other planned Navy rules (e.g. Virginia Capes Range Complex, Jacksonville Range Complex, Cherry Point Range Complex, etc.), the ICMP could potentially provide a framework for restructuring the monitoring plans and allocating monitoring effort based on the value of particular specific monitoring proposals (in terms of the degree to which results would likely contribute to stated monitoring goals, as well as the likely technical success of the monitoring based on a review of past monitoring results) that have been developed through the ICMP framework, instead of allocating based on maintaining an equal (or commensurate to effects) distribution of monitoring effort across range complexes.

The ICMP will identify:

- A means by which NMFS and the Navy would jointly consider prior years'

monitoring results and advancing science to determine if modifications are needed in mitigation or monitoring measures to better effect the goals laid out in the Mitigation and Monitoring sections of the NSWC PCD RDT&E rule.

- Guidelines for prioritizing monitoring projects

- If, as a result of the workshop and similar to the example described in the paragraph above, the Navy and NMFS decide it is appropriate to restructure the monitoring plans for multiple ranges such that they are no longer evenly allocated (by rule), but rather focused on priority monitoring projects that are not necessarily tied to the geographic area addressed in the rule, the ICMP will be modified to include a very clear and unclassified record-keeping system that will allow NMFS and the public to see how each range complex/project is contributing to all of the ongoing monitoring programs (resources, effort, money, etc.).

### **Adaptive Management**

The final regulations governing the take of marine mammals incidental to Navy's NSWC PCD RDT&E activities contain an adaptive management component. The use of adaptive management will give NMFS the ability 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 NSWC PCD Study Area 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.
- Results from specific stranding investigations (either from NSWC PCD Study Area or other locations)
- Results from general marine mammal and sound research (funded by the Navy or otherwise)
- Any information which reveals that marine mammals may have been taken in a manner, extent or number not authorized by these regulations or subsequent Letters of Authorization

Mitigation measures could be modified or added (or deleted) if new data suggests that such modifications would have (or do not have) a reasonable likelihood of accomplishing the goals of mitigation laid out in this 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 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 to ensure compliance with the terms and conditions of a LOA, and to provide NMFS and the Navy with data of the highest quality based on the required monitoring. As NMFS noted in its proposed rule, additional detail has been added to the reporting requirements since they were outlined in the proposed rule. The updated reporting requirements are all included below. A subset of the information provided in the monitoring reports may be classified and not releasable to the public.

#### ***General Notification of Injured or Dead Marine Mammals***

Navy personnel will ensure that NMFS (regional stranding coordinator) is notified immediately (or as soon as operational security allows) if an injured or dead marine mammal is found during or shortly after, and in the vicinity of, any Navy RDT&E activities utilizing underwater explosive detonations or other activities. The Navy will provide NMFS with species or description of the animal(s), the condition of the animal(s) (including carcass condition if the animal is dead), location, time of first discovery, observed behaviors (if alive), and photo or video (if available).

### *Annual Report*

The NSWC PCD shall submit a report annually on October 1 describing the RDT&E activities conducted and implementation and results of the NSWC PCD Monitoring Plan (through August 1 of the same year) and RDT&E activities. The report will, at a minimum, include the following information:

#### (1) RDT&E Information

- Date and time test began and ended.
- Location.
- Number and types of active sources used in the test.
- Number and types of vessels, aircraft, etc., participated in the test.
- Number and types of underwater detonations.
- Total hours of observation effort (including observation time when sonar was not operating).
- Total hours of all active sonar source operation.
- Total hours of each active sonar source.
- Wave height (high, low, and average during the test).

#### (2) Individual Marine Mammal Sighting Info

- Location of sighting.
- Species.
- Number of individuals.
- Calves observed (y/n).
- Initial detection sensor.
- Indication of specific type of platform observation made from.
- Length of time observers maintained visual contact with marine mammal(s).
- Wave height (in feet).
- Visibility.
- Sonar source in use (y/n).
- Indication of whether animal is < 200 yd, 200–500 yd, 500–1,000 yd, 1,000–2,000 yd, or > 2,000 yd from sonar source above.
- Mitigation implementation—Whether operation of sonar sensor was delayed, or sonar was powered or shut down, and how long the delay was.

If the active MFAS in use is hull mounted, true bearing of animal from ship, true direction of ship's travel, and estimation of animal's motion relative to ship (opening, closing, parallel).

• Observed behavior—Marine observers shall report, in plain language and without trying to categorize in any way, the observed behavior of the animals (such as animal closing to bow ride, paralleling course/speed, floating on surface and not swimming, etc.).

• An evaluation of the effectiveness of mitigation measures designed to avoid exposing marine mammals to

mid-frequency sonar. This evaluation shall identify the specific observations that support any conclusions the Navy reaches about the effectiveness of the mitigation.

### *NSWC PCD 5-Yr Comprehensive Report*

The Navy will submit to NMFS a draft report that analyzes and summarizes all of the multi-year marine mammal information gathered during HFAS/MFAS and underwater detonation related mission activities for which annual reports are required as described above. This report will be submitted at the end of the fourth year of the rule (October 2013), covering activities that have occurred through May 1, 2013. The Navy will respond to NMFS comments on the draft comprehensive report if submitted within 3 months of receipt. The report will be considered final after the Navy has addressed NMFS' comments, or three months after the submittal of the draft if NMFS does not comment by then.

### **Comments and Responses**

On April 30, 2009, NMFS published a proposed rule (74 FR 20156) in response to the Navy's request to take marine mammals incidental to conducting RDT&E activities in the NSWC PCD Study Area and requested comments, information and suggestions concerning the request. During the 30-day public comment period, NMFS received comments from 1 private citizen and comments from the Marine Mammal Commission (Commission). The comments are addressed below.

### *MMPA Concerns*

*Comment 1:* The Commission recommends that NMFS require the Navy to conduct an external peer review of its marine mammal density estimates, including the data upon which those estimates are based and the manner in which those are collected and used.

*Response:* As discussed in detail in the proposed rule (74 FR 20156, April 30, 2009), marine mammal density estimates were based on the data gathered in the Marine Resource Assessments (MRAs). The Navy MRA Program was implemented by the Commander, Fleet Forces Command, to initiate collection of data and information concerning the protected and commercial marine resources found in the Navy's Operating Areas (OPAREAs). Specifically, the goal of the MRA program is to describe and document the marine resources present in each of the Navy's OPAREAs. The MRA for the NSWC PCD, which includes Pensacola and Panama City

OPAREAs, was recently updated in 2007 (DoN, 2008).

Density estimates for cetaceans were derived in one of three ways, in order of preference: (1) Through spatial models using line-transect survey data provided by the NMFS (as discussed below); (2) using abundance estimates from Mullin and Fulling (2004); or (3) based on the cetacean abundance estimates found in the NMFS stock assessment reports (SAR; Waring *et al.*, 2007), which can be viewed at <http://www.nmfs.noaa.gov/pr/sars/species.htm>. For the model-based approach, density estimates were calculated for each species within areas containing survey effort. A relationship between these density estimates and the associated environmental parameters such as depth, slope, distance from the shelf break, sea surface temperature, and chlorophyll a concentration was formulated using generalized additive models. This relationship was then used to generate a two-dimensional density surface for the region by predicting densities in areas where no survey data exist.

The analyses for cetaceans were based on sighting data collected through shipboard surveys conducted by NMFS Northeast Fisheries Science Center (NEFSC) and Southeast Fisheries Science Center (SEFSC) between 1998 and 2005. Species-specific density estimates derived through spatial modeling were compared with abundance estimates found in the most current NMFS SAR to ensure consistency. All spatial models and density estimates were reviewed by and coordinated with NMFS Science Center technical staff and scientists with the University of St. Andrews, Scotland, Centre for Environmental and Ecological Modeling (CREEM). Draft models and preliminary results were reviewed during a joint workshop attended by Navy, NMFS Science Center, and CREEM representatives. Subsequent revisions and draft reports were reviewed by these same parties. Therefore, NMFS considers that the density estimates, including the data upon which those estimates are based and the manner in which those are collected and used, has already gone through an independent review process.

### *Monitoring and Mitigation*

*Comment 2:* The Commission recommends the Navy provide additional details concerning its Integrated Comprehensive Monitoring Program, including an estimated time frame for its implementation.

*Response:* The Navy has developed the ICMP Plan and will distribute it to

the Commission and other interested parties. The components of the ICMP Plan that were considered and incorporated into the final rules for the NSWC PCD include:

- A requirement to monitor Navy's RDT&E activities, particularly those involving sonar and underwater detonations, for compliance with the terms and conditions of ESA Section 7 consultations or MMPA authorizations;
- A requirement to minimize exposure of protected species from sound pressure levels from sonar and underwater detonations that result in harassment;
- A requirement to collect data to support estimating the number of individual marine mammals exposed to sound levels above current regulatory thresholds;
- A requirement to assess the adequacy of the Navy's current marine species mitigation;
- A requirement to document trends in species distribution and abundance in Navy mission activity areas through monitoring efforts;
- A requirement to compile data that would improve the Navy and NMFS' knowledge of the potential behavioral and physiological effects to marine species from sonar and underwater detonations.

The ICMP Plan 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 (lookout) data, as well as new information from other Navy programs (e.g., research and development), and newly published non-Navy information. The ICMP Plan is described in the Navy's EIS and LOA application.

*Comment 3:* The Commission recommends that NMFS require the Navy to develop and implement a plan to evaluate the effectiveness of monitoring and mitigation measures before beginning or in conjunction with operations covered by the proposed incidental take authorization.

*Response:* NMFS has been working with the Navy throughout the rulemaking process to develop a series of mitigation, monitoring, and reporting protocols. These mitigation, monitoring and reporting measures include, but are not limited to: (1) The use of trained Navy marine observers who will conduct marine mammal monitoring to avoid collisions with marine mammals; (2) the use of exclusion zones that avoid exposing marine mammals to levels of sound likely to result in injury or death

of marine mammals; (3) the use of MMOs/Navy marine observers to conduct aerial, vessel, and shore-based surveys; and (4) annual monitoring reports and comprehensive reports to provide insights of impacts to marine mammals.

NMFS has evaluated the effectiveness of the measures and has concluded they will achieve the least practicable adverse impact on the affected marine mammal species or stocks and their habitat. For example, operations will be suspended if trained Navy marine observers and/or MMOs detect marine mammals within the vicinity of the RDT&E activities, thereby preventing marine mammal injury or mortality (use of specified exclusion zones). In addition, prior to conducting RDT&E activities involving sonar or underwater explosive detonation, the Navy will be required to carry out monitoring to make sure that the safety zones are clear of marine mammals, and then during the test activity when feasible. These monitoring and mitigation measures will decrease the number of marine mammals exposed to underwater explosions and exposure to intense sounds from the detonations.

Over the course of the 5-year rule, NMFS will evaluate the Navy's RDT&E activities annually to validate the effectiveness of the measures. NMFS will, through the established adaptive management process, work with the Navy to determine whether additional mitigation and monitoring measures are necessary. In addition, with the implementation of the ICMP Plan by the end of 2009, and the planned Monitoring Workshop in 2011, NMFS will work with the Navy to further improve its monitoring and mitigation plans for its future activities.

*Comment 4:* The Commission recommends that NMFS implement a 60-minute waiting period when deep-diving species such as sperm and beaked whales or species that cannot be identified by watchstanders are observed within or are about to enter a safety zone.

*Response:* NMFS does not concur with the Commission's recommendation for the following reasons:

- The ability of an animal to dive longer than 30 minutes does not mean that it will always do so. Therefore, the 60-minute delay would only potentially add value in instances when animals had remained under water for more than 30 minutes.
- Navy vessels typically move at 10–12 knots (5–6 m/sec) when operating active sonar and potentially much faster when not. Fish *et al.* (2006) measured speeds of 7 species of odontocetes and

found that they ranged from 1.4–7.30 m/sec. Even if a vessel was moving at the slower typical speed associated with active sonar use, an animal would need to be swimming near sustained maximum speed for an hour in the direction of the vessel's course to stay within the safety zone of the vessel. Increasing the typical speed associated with active sonar use would further narrow the circumstances in which the 60-minute delay would add value.

- Additionally, the times when marine mammals are deep-diving (i.e., the times when they are under the water for longer periods of time) are the same times that a large portion of their motion is in the vertical direction, which means that they are far less likely to keep pace with a horizontally moving vessel.

• Given that, the animal would need to have stayed in the immediate vicinity of the sound source for an hour and considering the maximum area that both the vessel and the animal could cover in an hour, it is improbable that this would randomly occur. Moreover, considering that many animals have been shown to avoid both acoustic sources and ships without acoustic sources, it is improbable that a deep-diving cetacean (as opposed to a dolphin that might bow ride) would choose to remain in the immediate vicinity of the source. NMFS believes that it is unlikely that a single cetacean would remain in the safety zone of a Navy sound source for more than 30 minutes.

- Last, in many cases, the marine observers are not able to differentiate species to the degree that would be necessary to implement this measure. Plus, Navy operators have indicated that increasing the number of mitigation decisions that need to be made based on biological information is more difficult for the lookouts (because it is not their area of expertise).

*Comment 5:* The Commission recommends that NMFS require the Navy to suspend an activity if a marine mammal is seriously injured or killed and the injury or death could be associated with the activity. Subsequently, the injury or death should be investigated to determine the cause, assess the full impact of the activity potentially implicated (e.g., the total of animals involved), and determine how the activity should be modified to avoid future injuries or deaths.

*Response:* Though NMFS largely agrees with the Commission, it should be noted that without detailed examination by an expert, it is usually not feasible to determine the cause of injury or mortality when an injured or dead marine mammal is sighted in the

field. Therefore, NMFS has required in its final rule that if there is clear evidence that a marine mammal is injured or killed as a result of the proposed Navy RDT&E activities (*e.g.*, instances in which it is clear that munitions explosions caused the injury or death) the Naval activities shall be immediately suspended and the situation immediately reported by personnel involved in the activity to the Test Director or the Test Director's designee, who will follow Navy procedures for reporting the incident to NMFS through the Navy's chain-of-command.

For any other sighting of injured or dead marine mammals in the vicinity of any Navy's RDT&E activities utilizing underwater explosive detonations for which the cause of injury or mortality cannot be immediately determined, the Navy personnel will ensure that NMFS (regional stranding coordinator) is notified immediately (or as soon as operational security allows). The Navy will provide NMFS with species or description of the animal(s), the condition of the animal(s) (including carcass condition if the animal is dead), location, time of first discovery, observed behaviors (if alive), and photo or video (if available).

**Comment 6:** The Commission recommends NMFS require the Navy to, in those cases where authorization is sought to take marine mammals by injury, consult with NMFS to consider whether the requested take levels are realistic and adequately take into account the schooling behavior of dolphins.

**Response:** As discussed in the Navy's LOA application and in the Proposed Rule (74 FR 20156; April 30, 2009), take of marine mammals by Level A harassment (injury) could occur as a result of the underwater detonation exposures in the range of 76–272 lb NEW (34–272 kg) in non-territorial waters. However, as noted by the Commission, due to the schooling behavior of some dolphin species, there is the question of whether the requested take levels are realistic. Although NMFS shares the Commission's view to some degree that schooling dolphins are not evenly distributed, due to the changing oceanographic regime and the large area being considered, NMFS considers that the Navy's modeling and analysis on the requested take levels are the best approximations. In addition, NMFS believes that the Navy's take estimates are conservative, and that with the implementation of aforementioned mitigation and monitoring measures, many of the Level A harassments (injury) can be prevented.

#### *Reporting*

**Comment 7:** The Commission recommends NMFS require the Navy to submit annual reports that document in full the methods, results, and interpretation of all monitoring tasks.

**Response:** NMFS agrees with the Commission's recommendation. As described above, NMFS will require the Navy to submit a report annually on August 1 describing the RDT&E activities conducted and implementation and results of the NSWC PCD Monitoring Plan (through June 1 of the same year). A detailed description of report contents is provided above.

**Comment 8:** The Commission recommends that NMFS work with the Navy to develop a database for storing original records of Navy interactions with marine mammals, which will provide a basis for evaluating such interactions over long periods of time and across large areas.

**Response:** The Navy is required to document all marine mammal sightings through aerial, vessel, and shore-based survey by MMOs or Navy marine observers. Those records will be used to determine potential Navy interactions with marine mammals and to assess the impacts on marine mammals that may have resulted from the Navy's RDT&E activities. Currently there is no plan to develop a database for storing original records of Navy interactions with marine mammals due to limited resources. Nevertheless, NMFS will consider the Commission's recommendation when adequate resources are available to undertake such efforts.

#### *Miscellaneous Issues*

**Comment 9:** One private citizen expressed general opposition to Navy activities and NMFS' issuance of an MMPA authorization because of the danger of killing marine life.

**Response:** NMFS appreciates the commenter's concern for the marine mammals that live in the area of the proposed activities. However, the MMPA allows individuals to take marine mammals incidental to specified activities if NMFS can make the necessary findings required by law (*i.e.*, negligible impact, unmitigable adverse impact on subsistence users, etc.). As explained throughout this rulemaking, NMFS has made the necessary findings under 16 U.S.C. 1371(a)(5)(A) to support our issuance of the final rule.

#### **Estimated Take of Marine Mammals**

As mentioned previously, with respect to the MMPA, NMFS' effects

assessments serve 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 in the NSWC PCD Study Area; thus, there would be no effect to any subsistence user); and (4) to prescribe requirements pertaining to monitoring and reporting.

In the Estimated Take of Marine Mammals section of the proposed rule, NMFS related the potential effects to marine mammals from sonar operations and underwater detonation of explosives to the MMPA regulatory definitions of Level A and Level B Harassment and assessed the effects to marine mammals that could result from the specific activities that the Navy intends to conduct. The subsections of this analysis are discussed in the proposed rule (74 FR 20156; April 30, 2009). The only change in this section is that the sentence in the proposed rule (74 FR 20156; April 30, 2009; page 20179), "NSWC PCD RDT&E activities involve mid-frequency sonar operation for only 6 percent of operational hours," is changed to "NSWC PCD RDT&E activities involve mid-frequency sonar operation for only 7 percent of operational hours." The change is to fix the calculation error in the proposed rule.

In the Estimated Exposures of Marine Mammals section of the proposed rule, NMFS described in detail how the take estimates were calculated through modeling (74 FR 20156; pages 20178–20182; April 30, 2009). The following changes in this section have been made: (1) The first paragraph under Marine Mammal Sonar Exposures in Territorial Waters section of the proposed rule (74 FR 20156; April 30, 2009; page 20179), "rough-toothed dolphin" and one duplicated "Atlantic bottlenose dolphin" are deleted; and (2) the first paragraph under Marine Mammal

Ordnance Exposures in Non-Territorial Waters section (74 FR 20156; April 30, 2009; page 20181), “rough-toothed dolphin” and “striped dolphin” are deleted. The deletion is to clarify that no rough-toothed dolphin or striped dolphin would be affected by these

activities. In addition, Fraser’s dolphin is added to Tables 11, 12, and 13 in the final rule (74 FR 20156; April 30, 2009; pages 20181–20182), with zero exposures. No other change has been made to the final rule.

A summary of potential exposures from sonar operations and ordnance

(per year) for marine mammals in the NSWC PCD Study Area is listed in Table 4 (these exposure estimates are the same as those presented in the proposed rule, with the exception as noted above).

TABLE 4—ESTIMATES OF TOTAL MARINE MAMMAL EXPOSURES FROM THE NSWC PCD MISSION ACTIVITIES PER YEAR

Marine mammal species	Mortality (severe lung injury)	Level A (slight lung injury)	Level B (non-injury)
Bryde’s whale .....	.....	.....	.....
Sperm whale .....	.....	.....	2
Dwarf/Pygmy sperm whale .....	.....	.....	.....
All beaked whales .....	.....	.....	.....
Killer whale .....	.....	.....	.....
False killer whale .....	.....	.....	.....
Pygmy killer whale .....	.....	.....	.....
Melon-headed whale .....	.....	.....	2
Short-finned pilot whale .....	.....	.....	1
Risso’s dolphin .....	.....	.....	2
Rough-toothed dolphin .....	.....	.....	.....
Bottlenose dolphin .....	0	2	614
Atlantic spotted dolphin .....	0	2	471
Pantropical spotted dolphin .....	.....	1	23
Striped dolphin .....	.....	.....	5
Spinner dolphin .....	.....	1	23
Clymene dolphin .....	.....	.....	5
Fraser’s dolphin .....	.....	.....	.....

### Effects on Marine Mammal Habitat

NMFS’ NSWC PCD proposed rule included a section that addressed the effects of the Navy’s activities on Marine Mammal Habitat (74 FR 20156; pages 20182–20183; April 30, 2009). NMFS concluded preliminarily 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.

### 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 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. 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.

The Navy’s specified activities have been described based on best estimates of the number of HFAS/MFAS hours that the Navy will conduct and the planned detonation events. Taking the above into account, considering the sections discussed below, and dependent upon the implementation of the proposed mitigation measures, NMFS has determined that Navy’s RDT&E activities utilizing HFAS/MFAS and underwater detonations will have a negligible impact on the marine mammal species and stocks present in the NSWC PCD Study Area.

#### Behavioral Harassment

As discussed in the Potential Effects of Exposure of Marine Mammals to

HFAS/MFAS in the proposed rule (74 FR 20156; April 30, 2009) and illustrated in the conceptual framework, marine mammals can respond to HFAS/MFAS in many different ways, a subset of which qualifies as harassment. The take estimates do not take into account the fact that most marine mammals will likely avoid strong sound sources to one extent or another. Although an animal that avoids the sound source will likely still be taken in some instances (such as if the avoidance results in a missed opportunity to feed, interruption of reproductive behaviors, etc.) in other cases avoidance may result in fewer instances of take than were estimated or in the takes resulting from exposure to a lower received level than was estimated, which could result in a less severe response. The Navy proposes only 77 hours of mid-frequency sonar operations per year (Table 2) in the NSWC PCD Study Area, and the use of the most powerful 53C series sonar will be limited to just 4 hours per year. Therefore, any disturbance to marine mammals resulting from 53C and other MFAS is expected to be significantly less in terms of severity and duration when compared to major sonar exercises (*e.g.*, AFAST, HRC, SOCAL). As for the HFAS, source levels of those HFAS are not as high as the 53C series MFAS. In addition, high frequency signals tend to have more attenuation in the water

column and are more prone to lose their energy during propagation. Therefore, their zones of influence are much smaller, thereby making it easier to detect marine mammals and prevent adverse effects from occurring.

There is little information available concerning marine mammal reactions to MFAS/HFAS. The Navy has only been conducting monitoring activities since 2006 and has not compiled enough data to date to provide a meaningful picture of effects of HFAS/MFAS on marine mammals, particularly in the NSWC PCD Study Area. From the four major training exercises (MTEs) of HFAS/MFAS in the AFAST Study Area for which NMFS has received a monitoring report, no instances of obvious behavioral disturbance were observed by the Navy watchstanders in the 700+ hours of effort in which 79 sightings of marine mammals were made (10 during active sonar operation). One cannot conclude from these results that marine mammals were not harassed from HFAS/MFAS, as a portion of animals within the area of concern were not seen (especially those more cryptic, deep-diving species, such as beaked whales or *Kogia* sp.) and some of the non-biologist watchstanders might not have had the expertise to characterize behaviors. However, the data demonstrate that the animals that were observed did not respond in any of the obviously more severe ways, such as panic, aggression, or anti-predator response.

In addition to the monitoring that will be required pursuant to these regulations and subsequent LOAs, which is specifically designed to help us better understand how marine mammals respond to sound, the Navy and NMFS have developed, funded, and begun conducting a controlled exposure experiment with beaked whales in the Bahamas.

#### Diel Cycle

As noted in the proposed rule (74 FR 20156; April 30, 2009), many animals perform vital functions, such as feeding, resting, traveling, and socializing on a diel cycle (24-hr cycle). Substantive behavioral reactions to noise exposure (such as disruption of critical life functions, displacement, or avoidance of important habitat) are more likely to be significant if they last more than one diel cycle or recur on subsequent days (Southall *et al.*, 2007). Consequently, a behavioral response lasting less than one day and not recurring on subsequent days is not considered particularly severe unless it could directly affect reproduction or survival (Southall *et al.*, 2007).

In the proposed rule (74 FR 20156; April 30, 2009), NMFS discussed the fact that potential behavioral responses to HFAS/MFAS and underwater detonations that fall into the category of harassment could range in severity. By definition, takes by behavioral harassment involve the disturbance of a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns (such as migration, surfacing, nursing, breeding, feeding, or sheltering) to a point where such behavioral patterns are abandoned or significantly altered. These reactions would, however, be more of a concern if they were expected to last over 24 hours or be repeated in subsequent days. For hull-mounted sonar 53C series sonar (the highest power source), the total time of operation is only 4 hours per year, with 3 hours planned in territorial waters and 1 hour in non-territorial waters. Different sonar testing and underwater detonation activities will not occur simultaneously. When this is combined with the fact that the majority of the cetaceans in the NSWC PCD Study Area would not likely remain in the same area for successive days, it is unlikely that animals would be exposed to HFAS/MFAS and underwater detonations at levels or for a duration likely to result in a substantive response that would then be carried on for more than one day or on successive days.

#### TTS

NMFS and the Navy have estimated that individuals of some species of marine mammals may sustain some level of TTS from HFAS/MFAS and/or underwater detonation. As mentioned previously, TTS can last from a few minutes to days, be of varying degree, and occur across various frequency bandwidths. The TTS sustained by an animal is primarily classified by three characteristics:

- Frequency—Available data (of mid-frequency hearing specialists exposed to mid to high frequency sounds—Southall *et al.*, 2007) suggest that most TTS occurs in the frequency range of the source up to one octave higher than the source (with the maximum TTS at  $\frac{1}{2}$ ; octave above).

- Degree of the shift (*i.e.*, how many dB is the sensitivity of the hearing reduced by)—generally, both the degree of TTS and the duration of TTS will be greater if the marine mammal is exposed to a higher level of energy (which would occur when the peak dB level is higher or the duration is longer). The threshold for the onset of TTS (>6 dB) for Navy sonars is 195 dB (SEL), which might be received at distances of up to 275–500

m from the most powerful MFAS source, the AN/SQS-53 (the maximum ranges to TTS from other sources would be less). An animal would have to approach closer to the source or remain in the vicinity of the sound source appreciably longer to increase the received SEL, which would be difficult considering the marine observers and the nominal speed of a sonar vessel (10–12 knots). Of all TTS studies, some using exposures of almost an hour in duration or up to 217 SEL, most of the TTS induced was 15 dB or less, though Finneran *et al.* (2007) induced 43 dB of TTS with a 64-sec exposure to a 20 kHz source (MFAS emits a 1-s ping 2 times/minute). The threshold for the onset of TTS for detonations is a dual criteria: 182 dB re 1 microPa<sup>2</sup>-sec or 23 psi, which might be received at distances from 345–2,863 m from the centers of detonation based on the types of NEW involved.

- Duration of TTS (Recovery time)—see above. Of all TTS laboratory studies, some using exposures of almost an hour in duration or up to 217 SEL, almost all recovered within 1 day (or less, often in minutes), though in one study (Finneran *et al.*, 2007), recovery took 4 days.

Based on the range of degree and duration of TTS reportedly induced by exposures to non-pulse sounds of energy higher than that to which free-swimming marine mammals in the field are likely to be exposed during HFAS/MFAS testing activities, it is unlikely that marine mammals would sustain a TTS from MFAS that alters their sensitivity by more than 20 dB for more than a few days (and the majority would be far less severe). Also, for the same reasons discussed in the Diel Cycle section, and because of the short distance within which animals would need to approach the sound source, it is unlikely that animals would be exposed to the levels necessary to induce TTS in subsequent time periods such that their recovery were impeded. Additionally, though the frequency range of TTS that marine mammals might sustain would overlap with some of the frequency ranges of their vocalization types, the frequency range of TTS from MFAS (the source from which TTS would more likely be sustained because the higher source level and slower attenuation make it more likely that an animal would be exposed to a higher level) would not usually span the entire frequency range of one vocalization type, much less span all types of vocalizations.

For underwater detonations, due to its brief impulse of sounds, animals have to be at distances from 345–2,863 m from the center of detonation, based on the

types of NEW involved to receive the SEL that causes TTS compared to similar source level with longer durations (such as sonar signals).

#### *Acoustic Masking or Communication Impairment*

As discussed in the proposed rule (74 FR 20156; April 30, 2009), it is also possible that anthropogenic sound could result in masking of marine mammal communication and navigation signals. However, masking only occurs during the time of the signal (and potential secondary arrivals of indirect rays), versus TTS, which occurs continuously for its duration. Standard HFAS/MFAS sonar pings last on average one second and occur about once every 24–30 seconds for hull-mounted sources. When hull-mounted sonar is used in the Kingfisher mode, pulse length is shorter, but pings are much closer together (both in time and space, since the vessel goes slower when operating in this mode). For the sources for which we know the pulse length, most are significantly shorter than hull-mounted sonar, on the order of several microseconds to 10s of microseconds. For hull-mounted sonar, though some of the vocalizations that marine mammals make are less than one second long, there is only a 1 in 24 chance that they would occur exactly when the ping was received, and when vocalizations are longer than one second, only parts of them are masked. Alternately, when the pulses are only several microseconds long, the majority of most animals' vocalizations would not be masked. Masking effects from HFAS/MFAS are expected to be minimal. Likewise, the masking effects from underwater detonation are also considered to be unlikely due to the much shorter impulsive signals from explosions. If masking or communication impairment were to occur briefly, it would be in the frequency range of MFAS, which overlaps with some marine mammal vocalizations; however, it would likely not mask the entirety of any particular vocalization or communication series because the pulse length, frequency, and duty cycle of the HFAS/MFAS signal does not perfectly mimic the characteristics of any marine mammal's vocalizations.

#### *PTS, Injury, or Mortality*

The Navy's model estimated that 1 individual of bottlenose dolphin and 1 individual of Atlantic spotted dolphin could experience severe lung injury (i.e., mortality) from explosive ordnance activities; and 1 individual each of bottlenose, Atlantic spotted, pantropical

spotted, and spinner dolphins from slight lung injury (Level A harassment) as a result of the underwater detonation exposures in the range of 76–272 lb NEW (34–272 kg) in non-territorial waters per year. However, these estimates do not take into consideration the proposed mitigation measures. For sonar operations, NMFS believes that many marine mammals would deliberately avoid exposing themselves to the received levels necessary to induce injury (i.e., approaching to within approximately 10 m (10.9 yd) of the source). Animals would likely move away from or at least modify their path to avoid a close approach. Additionally, in the unlikely event that an animal approaches the sonar vessel at a close distance, NMFS believes that the mitigation measures (i.e., shutdown/power-down zones for HFAS/MFAS) further ensure that animals would not be exposed to injurious levels of sound. As for underwater detonations, the animals have to be within the 203 m ZOI to experience severe lung injury or mortality. NMFS believes it is unlikely that Navy observers will fail to detect an animal in such a small area during pre-testing surveys. As discussed previously, the Navy plans to utilize aerial (when available) in addition to marine observers on vessels to detect marine mammals for mitigation implementation and indicated that they are capable of effectively monitoring safety zones. When these points are considered, NMFS does not believe that any marine mammals will experience severe lung injury or mortality from exposure to HFAS/MFAS or underwater detonation. Instead, based on proposed mitigation and monitoring measures, NMFS preliminary determined that 2 individuals of bottlenose and Atlantic spotted dolphins, and 1 individual of pantropical spotted and spinner dolphins would receive slight lung injury (Level A harassment) as a result of underwater detonation exposures in the range of 76–272 lb NEW (34–272 kg) in non-territorial waters per year.

Based on the aforementioned assessment, NMFS determined that approximately 2 sperm whales, 2 melon-headed whales, 1 short-finned pilot whale, 2 Rissò's dolphins, 614 bottlenose dolphins, 471 Atlantic spotted dolphins, 23 pantropical spotted dolphins, 5 striped dolphins, 23 spinner dolphins, and 5 Clymene dolphins would experience Level B harassment (TTS and sub-TTS) as a result of the proposed NSWC PCD RDT&E sonar and underwater detonation testing activities. These numbers represent approximately 0.12%, 0.08%, 0.14%, 0.07%, 2.85%,

1.25%, 0.07%, 0.08%, 1.16%, and 0.08% of sperm whales, melon-headed whales, short-finned pilot whale, rough-toothed dolphins, bottlenose dolphins, Atlantic spotted dolphins, pantropical spotted dolphins, striped dolphins, spinner dolphins, and Clymene dolphins, respectively in the vicinity of the proposed NSWC PCD Study Area (calculation based on NMFS 2007 US Atlantic and Gulf of Mexico Marine Mammal Stock Assessment).

In addition, the Level A takes of 2 bottlenose, 2 Atlantic spotted, 1 pantropical spotted, and 1 spinner dolphins represent 0.009%, 0.005%, 0.003%, and 0.050% of these species in the vicinity of the proposed NSWC PCD Study Area (calculation based on NMFS 2007 US Atlantic and Gulf of Mexico Marine Mammal Stock Assessment). Given these very small percentages, NMFS does not expect there to be any long-term adverse effect on the populations of the aforementioned dolphin species. No marine mammals are expected to be killed as a result of these activities.

Based on the supporting analyses, which suggest that that no marine mammals will be killed as a result of these activities, only 6 individuals of dolphins (2 bottlenose, 2 Atlantic spotted, 1 pantropical spotted, and 1 spinner dolphins) would experience injury (Level A harassment), and no more than a small percentage of the individuals of any affected species will be taken in the form of short-term Level B harassment per year.

Additionally, the aforementioned take estimates do not account for the implementation of mitigation measures. With the implementation of mitigation and monitoring measures, NMFS expects that the takes would be reduced further. Coupled with the fact that these impacts will likely not occur in areas and times critical to reproduction, NMFS has determined that the total taking over the 5-year period of the regulations and subsequent LOAs from the Navy's NSWC PCD RDT&E mission activities will have a negligible impact on the marine mammal species and stocks present in the NSWC PCD Study Area.

#### **Subsistence Harvest of Marine Mammals**

NMFS has determined that the total taking of marine mammal species or stocks from the Navy's mission activities in the NSWC PCD study area would not have an unmitigable adverse impact on the availability of the affected species or stocks for subsistence uses, since there are no such uses in the specified area.

## ESA

There are six marine mammal species of which NMFS has jurisdiction that are listed as endangered under the ESA that could occur in the NSWC PCD Study Area: humpback whale, North Atlantic right whale, blue whale, fin whale, sei whale, and sperm whale.

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. The Biological Opinion was issued on September 15, 2009, and concludes that the proposed RDT&E activities are likely to adversely affect but are not likely to jeopardize the continued existence of these threatened and endangered species under NMFS jurisdiction.

## NEPA

NMFS participated as a cooperating agency on the Navy's Final Environmental Impact Statement (FEIS) for the NSWC PCD. NMFS subsequently adopted the Navy's EIS/OEIS for the purpose of complying with the MMPA.

## Determination

Based on the analysis contained herein 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 measures, NMFS finds that the total taking from the NSWC PCD's RDT&E activities utilizing MFAS/HFAS and underwater explosives over the 5 year period will have a negligible impact on the affected species or stocks and will not result in an unmitigable adverse impact on the availability of marine mammal species or stocks for taking for subsistence uses because no subsistence uses exist in the NSWC PCD Study Area. NMFS has issued 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.

## Classification

This action does not contain a collection of information requirement for purposes of the Paperwork Reduction Act.

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

The Chief Counsel for Regulation of the Department of Commerce certified at the proposed rule stage that this action will not have a significant economic

impact on a substantial number of small entities. The Navy is the entity that will be affected by this rulemaking, not a small governmental jurisdiction, small organization or small business, as defined by the RFA. This rulemaking authorizes the take of marine mammals incidental to a specified activity. The specified activity defined in the final rule includes the use of underwater detonations, which are only used by the U.S. military, during RDT&E activities that are only conducted by the U.S. Navy. Additionally, 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. Because this action, if adopted, would directly affect the Navy and not a small entity, NMFS concludes the action would not result in a significant economic impact on a substantial number of small entities.

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. The U.S. Navy has a compelling national policy reason to continue military readiness activities without interruption in its Gulf of Mexico Operating Areas, *i.e.*, the NSWC PCD Study Area. As discussed below, suspension/interruption of the Navy's ability to train, for even a small number of days, disrupts vital sequential RDT&E activities and certification processes essential to our national security.

In order to meet its national security objectives, the Navy must continually maintain its ability to operate in a challenging at-sea environment, conduct military operations, control strategic maritime transit routes and international straits, and protect sea lines of communications that support international commerce. To meet these objectives, the Navy must continually conduct RDT&E activities. These activities are critical because individual Navy units and Strike Groups/Amphibious Readiness Groups (ARG) currently operate in, or need to utilize highly advantaged technologies to support mission activities.

## List of Subjects in 50 CFR Part 218

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

Dated: January 13, 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 S is added to part 218 to read as follows:

### Subpart S—Taking Marine Mammals Incidental to U.S. Naval Surface Warfare Center Panama City Division Mission Activities

Sec.

- 218.180 Specified activity and specified geographical area and effective dates.
- 218.181 Permissible methods of taking.
- 218.182 Prohibitions.
- 218.183 Mitigation.
- 218.184 Requirements for monitoring and reporting.
- 218.185 Applications for Letters of Authorization.
- 218.186 Letters of Authorization.
- 218.187 Renewal of Letters of Authorization and adaptive management.
- 218.188 Modifications to Letters of Authorization.

### Subpart S—Taking Marine Mammals Incidental to U.S. Navy Mission Activities in the Naval Surface Warfare Center Panama City Division

#### § 218.180 Specified activity and specified geographical area and effective dates.

(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 NSWC PCD Study Area, which includes St. Andrew Bay (SAB) and military warning areas (areas within the GOM subject to military operations) W-151 (includes Panama City Operating Area), W-155 (includes Pensacola Operating Area), and W-470, as described in Figures 2–1 and 2–2 of the Navy's application for the Letter of Authorization (LOA). The NSWC PCD Study Area includes a Coastal Test Area, a Very Shallow Water Test Area, and Target and Operational Test Fields. The NSWC PCD Research, Development, Test, and Evaluation (RDT&E) activities may be conducted anywhere within the existing military

operating areas and SAB from the mean high water line (average high tide mark) out to 222 km (120 nm) offshore. The locations and environments include:

(1) Test area control sites adjacent to NSWC PCD.

(2) Wide coastal shelf 97 km (52 nm) distance offshore to 183 m (600 ft), including bays and harbors.

(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 high frequency active sonar (HFAS) and mid-frequency active sonar (MFAS) or similar sources for U.S. Navy mission activities in territorial waters in the amounts indicated below:

(i) AN/SQS-53/56 Kingfisher—up to 15 hours over the course of 5 years (an average of 3 hours per year);

(ii) Sub-bottom profiler (2–9 kHz)—up to 105 hours over the course of 5 years (an average of 21 hours per year);

(iii) REMUS SAS-LF (center frequency 15 kHz)—up to 60 hours over the course of 5 years (an average of 12 hours per year);

(iv) REMUS Modem—up to 125 hours over the course of 5 years (an average of 25 hours per year);

(v) Sub-bottom profiler (2–16 kHz)—up to 120 hours over the course of 5 years (an average of 24 hours per year);

(vi) AN/SQQ-32—up to 150 hours over the course of 5 years (an average of 30 hours per year);

(vii) REMUS-SAS-LF (center frequency 20 kHz)—up to 100 hours over the course of 5 years (an average of 20 hours per year);

(viii) SAS-LF—up to 175 hours over the course of 5 years (an average of 35 hours per year);

(ix) AN/WLD-1 RMS-ACL—up to 168 hours over the course of 5 years (an average of 33.5 hours per year);

(x) BPAUV Sidescan (center frequency 75 kHz)—up to 125 hours over the course of 5 years (an average of 25 hours per year);

(xi) TVSS—up to 75 hours over the course of 5 years (an average of 15 hours per year);

(xii) F84Y—up to 75 hours over the course of 5 years (an average of 15 hours per year);

(xiii) BPAUV Sidescan (center frequency 102.5 kHz)—up to 125 hours over the course of 5 years (an average of 25 hours per year);

(xiv) REMUS-SAS-HF—up to 50 hours over the course of 5 years (an average of 10 hours per year);

(xv) SAS-HF—up to 58 hours over the course of 5 years (an average of 11.5 hours per year);

(xvi) AN/SQS-20—up to 2725 hours over the course of 5 years (an average of 545 hours per year);

(xvii) AN/WLD-11 RMS Navigation—up to 75 hours over the course of 5 years (an average of 15 hours per year); and

(xviii) BPAUV Sidescan (center frequency 120 kHz)—up to 150 hours over the course of 5 years (an average of 30 hours per year).

(2) The use of the following high frequency active sonar (HFAS) and mid-frequency active sonar (MFAS) or similar sources for U.S. Navy mission activities in non-territorial waters in the amounts indicated below:

(i) AN/SQS-53/56 Kingfisher—up to 5 hours over the course of 5 years (an average of 1 hour per year);

(ii) Sub-bottom profiler (2–9 kHz)—up to 5 hours over the course of 5 years (an average of 1 hour per year);

(iii) REMUS Modem—up to 60 hours over the course of 5 years (an average of 12 hours per year);

(iv) Sub-bottom profiler (2–16 kHz)—up to 5 hours over the course of 5 years (an average of 1 hour per year);

(v) AN/SQQ-32—up to 5 hours over the course of 5 years (an average of 1 hour per year);

(vi) SAS-LF—up to 75 hours over the course of 5 years (an average of 15 hours per year);

(vii) AN/WLD-1 RMS-ACL—up to 25 hours over the course of 5 years (an average of 5 hours per year);

(viii) BPAUV Sidescan (center frequency 75 kHz)—up to 190 hours over the course of 5 years (an average of 38 hours per year);

(ix) TVSS—up to 83 hours over the course of 5 years (an average of 16.5 hours per year);

(x) F84Y—up to 75 hours over the course of 5 years (an average of 15 hours per year);

(xi) REMUS-SAS-HF—up to 125 hours over the course of 5 years (an average of 25 hours per year);

(xii) SAS-HF—up to 75 hours over the course of 5 years (an average of 15 hours per year);

(xiii) AN/AQS-20—up to 75 hours over the course of 5 years (an average of 15 hours per year); and

(xiv) BPAUV Sidescan (center frequency 120 kHz)—up to 125 hours over the course of 5 years (an average of 25 hours per year).

(3) Ordnance operations for U.S. Navy mission activities in territorial waters in the amounts indicated below:

(i) Range 1 (0–10 lb)—up to 255 detonations over the course of 5 years (an average of 51 detonations per year);

(ii) Range 2 (11–75 lb)—up to 15 detonations over the course of 5 years (an average of 3 detonations per year); and

(iii) Line charges—up to 15 detonations over the course of 5 years (an average of 3 detonations per year).

(4) Ordnance operations for U.S. Navy mission activities in non-territorial waters in the amounts indicated below:

(i) Range 3 (76–600 lb)—up to 80 detonations over the course of 5 years (an average of 16 detonations per year).

(ii) Reserved.

(5) Projectile firing operations for U.S. Navy mission activities in non-territorial waters in the amounts indicated below:

(i) 5 in. Naval gunfire—up to 300 rounds over the course of 5 years (an average of 60 rounds per year);

(ii) 40 mm rounds—up to 2,400 rounds over the course of 5 years (an average of 480 rounds per year);

(iii) 30 mm rounds—up to 3,000 rounds over the course of 5 years (an average of 600 rounds per year);

(iv) 20 mm rounds—up to 14,835 rounds over the course of 5 years (an average of 2,967 rounds per year);

(v) 76 mm rounds—up to 1,200 rounds over the course of 5 years (an average of 240 rounds per year);

(vi) 25 mm rounds—up to 2,625 rounds over the course of 5 years (an average of 525 rounds per year); and

(vii) Small arms—up to 30,000 rounds over the course of 5 years (an average of 6,000 rounds per year).

(d) Regulations are effective January 21, 2010, through January 21, 2015.

#### **\$218.181 Permissible methods of taking.**

(a) Under Letters of Authorization issued pursuant to §§ 216.106 and 218.186 of this chapter, the Holder of the Letter of Authorization may incidentally, but not intentionally, take marine mammals within the area described in § 218.180(b), provided the activity is in compliance with all terms, conditions, and requirements of these regulations and the appropriate Letter of Authorization.

(b) The incidental take of marine mammals under the activities identified in § 218.180(c) is limited to the following species, by the indicated method of take and the indicated number of times:

(1) Level B Harassment:

(i) Sperm whale (*Physeter macrocephalus*)—10 (an average of 2 annually);

(ii) Risso's dolphin (*Grampus griseus*)—10 (an average of 2 annually);

(iii) Bottlenose dolphin (*Tursiops truncatus*)—3,070 (an average of 614 annually);

(iv) Atlantic spotted dolphin (*Stenella frontalis*)—2,355 (an average of 471 annually);

(v) Pantropical spotted dolphin (*S. attenuata*)—115 (an average of 23 annually);

(vi) Striped dolphin (*S. coeruleoalba*)—25 (an average of 5 annually);

(vii) Spinner dolphin (*S. longirostris*)—115 (an average of 23 annually);

(viii) Melon-headed whale (*Peponocephala electra*)—10 (an average of 2 annually);

(ix) Short-finned pilot whale (*Globicephala macrorhynchus*)—5 (an average of 1 annually);

(x) Clymene dolphin (*S. clymene*)—25 (an average of 5 annually);

(2) Level A Harassment:

(i) Bottlenose dolphin (*Tursiops truncatus*)—10 (an average of 2 annually);

(ii) Atlantic spotted dolphin (*Stenella frontalis*)—10 (an average of 2 annually);

(iii) Pantropical spotted dolphin (*S. attenuata*)—5 (an average of 1 annually);

(ix) Spinner dolphin (*S. longirostris*)—5 (an average of 1 annually).

#### **§ 218.182 Prohibitions.**

Notwithstanding takings contemplated in § 218.181 and authorized by a Letter of Authorization issued under § 216.106 of this chapter and § 218.186, no person in connection with the activities described in § 218.180 may:

(a) Take any marine mammal not specified in § 218.181(b);

(b) Take any marine mammal specified in § 218.181(b) other than by incidental take as specified in § 218.181(b)(1) and (2);

(c) Take a marine mammal specified in § 218.181(b) 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 of this chapter and § 218.186.

#### **§ 218.183 Mitigation.**

When conducting RDT&E activities identified in § 218.180(c), the mitigation measures contained in this subpart and subsequent Letters of Authorization issued under §§ 216.106 of this chapter and § 218.186 must be implemented. These mitigation measures include, but are not limited to:

(a) *Mitigation Measures for HFAS/MFAS Operations:* (1) Personnel Training: (i) All marine observers onboard platforms involved in NSWC PCD RDT&E activities shall complete Marine Species Awareness Training (MSAT).

(ii) Marine observers 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.

(2) Marine Observer Responsibilities:

(i) On the bridge of surface vessels, there shall always be at least one to three marine species awareness trained observer(s) on watch whose duties include observing the water surface around the vessel.

(A) For vessels with length under 65 ft (20 m), there shall always be at least one marine observer on watch.

(B) For vessels with length between 65–200 ft (20–61 m), there shall always be at least two marine observers on watch.

(C) For vessels with length above 200 ft (61 m), there shall always be at least three marine observers on watch.

(ii) Each marine observer shall have at their disposal at least one set of binoculars available to aid in the detection of marine mammals.

(iii) On surface vessels equipped with AN/SQQ-53C/56, pedestal mounted “Big Eye” (20 x 110) binoculars shall be present and in good working order to assist in the detection of marine mammals in the vicinity of the vessel.

(iv) Marine observers shall employ visual search procedures employing a scanning methodology in accordance with the Lookout Training Handbook (NAVEDTRA 12968-D).

(v) Marine observers shall scan the water from the vessel to the horizon and be responsible for ensuring that all contacts in their sector follow the below protocols:

(A) In searching the assigned sector, the marine observer shall always start at the forward part of the sector and search aft (toward the back).

(B) To search and scan, the marine observer shall hold the binoculars steady so the horizon is in the top third of the field of vision and direct the eyes just below the horizon.

(C) The marine observer shall scan for approximately five seconds in as many small steps as possible across the field seen through the binoculars.

(D) The marine observer shall search the entire sector in approximately five-degree steps, pausing between steps for approximately five seconds to scan the field of view.

(E) At the end of the sector search, the glasses would be lowered to allow the eyes to rest for a few seconds, and then the marine observer shall search back across the sector with the naked eye.

(vi) After sunset and prior to sunrise, marine observers shall employ Night

Lookout Techniques in accordance with the Lookout Training Handbook.

(vii) At night, marine observers shall scan the horizon in a series of movements that would allow their eyes to come to periodic rests as they scan the sector. When visually searching at night, marine observers shall look a little to one side and out of the corners of their eyes, paying attention to the things on the outer edges of their field of vision.

(viii) Marine observers shall be responsible for reporting all objects or anomalies sighted in the water (regardless of the distance from the vessel) to the Test Director or the Test Director's designee.

(3) Operating Procedures:

(i) The Test Director or the Test Director's designee shall maintain the logs and records documenting RDT&E activities should they be required for event reconstruction purposes. Logs and records will be kept for a period of 30 days following completion of a RDT&E mission activity.

(ii) A Record of Environmental Consideration shall be included in the Test Plan prior to the test event to further disseminate the personnel testing requirement and general marine mammal mitigation measures.

(iii) Test Directors 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 vessel.

(iv) All personnel engaged in passive acoustic sonar operation (including aircraft or surface vessels) shall monitor for marine mammal vocalizations and report the detection of any marine mammal to the Test Director or the Test Director's designee for dissemination and appropriate action.

(v) During HFAS/MFAS mission activities, personnel shall utilize all available sensor and optical systems (such as Night Vision Goggles) to aid in the detection of marine mammals.

(vi) Navy aircraft participating in RDT&E activities at sea shall conduct and maintain surveillance for marine species of concern as long as it does not violate safety constraints or interfere with the accomplishment of primary operational duties.

(vii) Marine mammal detections shall be immediately reported to the Test Director or the Test Director's designee for further dissemination to vessels in the vicinity of the marine species as appropriate where it is reasonable to conclude that the course of the vessel will likely result in a closing of the distance to the detected marine mammal.

(viii) Safety Zones—When marine mammals are detected by any means (aircraft, shipboard marine observer, or acoustically) the Navy will ensure that HFAS/MFAS 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 source (the bow).

(A) Vessels shall continue to limit maximum HFAS/MFAS transmission levels by this 6-dB factor until the marine mammal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yards (1,828 m) beyond the location of the last detection.

(B) The Navy shall ensure that HFAS/MFAS transmissions will be limited to at least 10 dB below the equipment's normal operating level if any detected animals are within 500 yards (457 m) of the sonar source. Vessels will continue to limit maximum ping levels by this 10-dB factor until the marine mammal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yards (1,828 m) beyond the location of the last detection.

(C) The Navy shall ensure that HFAS/MFAS transmissions are ceased if any detected marine mammals are within 200 yards (183 m) of the sonar source. HFAS/MFAS will not resume until the marine mammal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yards (1,828 m) beyond the location of the last detection.

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

(E) If the need for power-down should arise as detailed in "Safety Zones" above, 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 sonar was being operated).

(ix) 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.

(x) Sonar levels (generally)—Navy shall operate sonar at the lowest practicable level, not to exceed 235 dB, except as required to meet RDT&E objectives.

(b) *Mitigation Measures for Ordnance and Projectile Firing:* (1) No detonations

over 34 kg (75 lb) shall be conducted in territorial waters, except the line charge detonation, which is a 107 m (350 ft).

(2) The number of live mine detonations shall be minimized and the smallest amount of explosive material possible to achieve test objectives will be used.

(3) Activities shall be coordinated through the Environmental Help Desk to allow potential concentrations of detonations in a particular area over a short time to be identified and avoided.

(4) Visual surveys and aerial surveys of the clearance zones specified in § 218.183(b)(6)(i) through (iii) shall be conducted in accordance with § 218.184(c) for all test operations that involve detonation events with large net explosive weight (NEW). Any protected species sighted will be reported.

(5) Line charge tests shall not be conducted during the nighttime.

(6) Additional mitigation measures shall be determined through the NSWC PCD's Environmental Review Process based on test activities including the size of detonations, test platforms, and environmental effects documented in the Navy's EIS/OEIS. Clearance zones must be determined based on the upper limit of different ranges of net explosive weight (NEW) used in the tests, as listed below:

(i) NEW between 76–600 lb: clearance zone is 2,863 m (9,393 ft);

(ii) NEW between 11–75 lb: clearance zone is 997 m (2,865 ft); and

(iii) NEW less than 11 lb—clearance zone is 345 m (1,132 ft).

(c) *Mitigation Measures for Surface Operations:* (1) While underway, vessels shall have at least one to three marine species awareness trained observers (based on vessel length) with binoculars. As part of their regular duties, marine observers shall watch for and report to the Test Director or Test Director's designee the presence of marine mammals.

(i) For vessels with length under 65 ft (20 m), there shall always be at least one marine observer on watch.

(ii) For vessels with length between 65–200 ft (20–61 m), there shall always be at least two marine observers on watch.

(iii) For vessels with length above 200 ft (61 m), there shall always be at least three marine observers on watch.

(2) Marine observers shall employ visual search procedures employing a scanning method in accordance with the Lookout Training Handbook (NAVEDTRA 12968-D).

(3) While in transit, naval vessels shall be alert at all times, use extreme caution, and proceed at a "safe speed" (the minimum speed at which mission

goals or safety will not be compromised) 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.

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

(5) Naval vessels shall maneuver to keep at least 500 yd (460 m) away from any observed whale and avoid approaching whales head-on. This requirement does 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. Vessels shall take reasonable steps to alert other Navy vessels in the vicinity of the whale.

(6) Where operationally feasible and safe, vessels shall avoid closing to within 200-yd (183 m) of marine mammals other than whales.

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

(a) The Holder of the Letter of Authorization issued pursuant to §§ 216.106 and 218.186 for activities described in § 218.180(c) is required to cooperate with the NMFS when monitoring the impacts of the activity on marine mammals.

(b) The Holder of the Authorization must notify NMFS immediately (or as soon as clearance procedures allow) if the specified activity identified in § 218.180(c) is thought to have resulted in the mortality or injury of any marine mammals, or in any take of marine mammals not identified or authorized in § 218.181(b).

(c) The Holder of the Letter of Authorization must conduct all monitoring and required reporting under the Letter of Authorization, including abiding by the NSWC PCD Study Area Complex Monitoring Plan, which is incorporated herein by reference, and which requires the Navy to implement, at a minimum, the monitoring activities summarized below.

(1) *Visual Surveys—Vessel, Aerial and Shore-based:* The Holder of this Authorization shall visually survey a minimum of 2 HFAS/MFAS activities

and 2 explosive events per year. If the 53C sonar was being operated, such activity must be monitored as one of the HFAS/MFAS activities. For explosive events, one of the monitoring measures shall be focused on a multiple detonation event.

(i) In accordance with all safety considerations, observations shall be maximized by working from all available platforms: Vessels, aircraft, land and/or in combination.

(ii) Vessel and aerial surveys shall be conducted two days before, during, and one to five days after the NSWC PCD mission activities on commercial vessels and aircraft.

(iii) Visual surveys shall be conducted during Navy mission activities that have been identified to provide the highest likelihood of success.

(iv) The visual survey team shall collect the same data that are collected by Navy marine observers, including but not limited to:

- (A) Location of sighting;
- (B) Species (or to the lowest taxa possible);
- (C) Number of individuals;
- (D) Number of calves present, if any;
- (E) Duration of sighting;
- (F) Behavior of marine animals sighted;
- (G) Direction of travel;
- (H) Environmental information associated with sighting event including Beaufort sea state, wave height, swell direction, wind direction, wind speed, glare, percentage of glare, percentage of cloud cover; and

(I) When in relation to Navy exercises did the sighting occur (before, during or after detonations/exercise).

(v) Animal sightings and relative distance from a particular activity site shall be used post survey to estimate the number of marine mammals exposed to different received levels (energy and pressure of discharge based on distance to the source, bathymetry, oceanographic conditions and the type and size of detonation) and their corresponding behavior.

(vi) Any digital photographs that are taken of marine mammals during visual surveys shall be provided to local researchers for their regional research.

(vii) The Holder of the Letter of Authorization shall, when conducting RDT&E activities in the NSWC PCD Study Area, implement the following monitoring methods:

(A) Aerial surveys:

(1) During NSWC PCD sonar related mission activities, an aerial survey team shall fly transects relative to a Navy surface vessel that is conducting the mission activities.

(2) The aerial survey team shall collect both visual sightings and

behavioral observations of marine animals.

(3) These transect data shall provide an opportunity to collect data of marine mammals at different received levels and their behavioral responses and movement relative to the Navy vessel's position.

(4) Aerial surveys shall include time with and without test events in order to compare density, geographical distribution and behavioral observations.

(5) Behavioral observation methods shall involve three professionally trained marine mammal observers and a pilot. Two observers shall observe behaviors, one with hand-held binoculars and one with the naked eye.

(6) Detailed behavioral focal observations of cetaceans shall be recorded including the following variables where possible: species (or to the lowest taxa possible), group size and composition (number of calves, etc.), latitude/longitude, surface and dive durations and times, number and spacing/times of respirations, conspicuous behaviors (e.g., breach, tail slap, etc.), behavioral states, orientation and changes in orientation, estimated group travel speed, inter-individual distances, defecation, social interactions, aircraft speed, aircraft altitude, distance to focal group (using the plane's radar) and any unusual behaviors or apparent reactions.

(B) Vessel Surveys:

(1) Vessel surveys shall be designed to maximize detections of any target species near mission activity event for focal follows.

(2) Systematic transects shall be used to locate marine mammals. In the course of conducting these surveys, the vessel(s) shall deviate from transect protocol to collect behavioral data particularly if a Navy vessel is visible on the horizon or closer.

(3) While the Navy vessels are within view, attempts shall be made to position the dedicated survey vessel in the best possible way to obtain focal follow data in the presence of the Navy mission activities. If Navy vessels are not in view, then the vessel shall begin a systematic line transect surveys within the area to assess marine mammal occurrence and observe behavior.

(4) Post-analysis shall focus on how the location, speed and vector of the survey vessel and the location and direction of the sonar source (e.g. Navy surface vessel) relates to the animal.

(5) Any other vessels or aircraft observed in the area shall also be documented.

(C) Shore-based Surveys:

(1) Shore-based monitors shall observe explosive events that are planned in advance to occur adjacent to nearshore areas where there are elevated coastal structures (e.g. lookout tower at Eglin Air Force Base) or topography, and shall use binoculars or theodolite to augment other visual survey methods.

(2) Shore-based surveys of the detonation area and nearby beaches shall be conducted for stranded marine animals following nearshore events. If any distressed, injured or stranded animals are observed, an assessment of the animal's condition (alive, injured, dead, or degree of decomposition) shall be reported immediately to the Navy for appropriate action and the information shall be transmitted immediately to NMFS.

(3) If animals are observed prior to or during an explosion, a focal follow of that individual or group shall be conducted to record behavioral responses.

(2) Passive Acoustic Monitoring (PAM): The Holder of this Authorization shall visually survey a minimum of 2 HFAS/MFAS activities and 2 explosive events per year. If the 53C sonar was being operated, such activity must be monitored as one of the HFAS/MFAS activities. For explosive events, one of the monitoring measures shall be focused on a multiple detonation event.

(i) The Navy shall use towed or over-the-side passive acoustic monitoring device/hydrophone array when feasible in the NSWC PCD Study Area for PAM.

(ii) The array shall be deployed for each of the days the ship is at sea.

(iii) The array shall be able to detect low frequency vocalizations (less than 1,000 Hz) for baleen whales and relatively high frequency vocalizations (up to 30 kHz) for odontocetes.

(iv) These buoys shall be left in place for a long enough duration (e.g. months) that data are collected before, during and outside of mission activities.

(v) Acoustic data collected from the buoys shall be used in order to detect, locate, and potentially track calling whales/dolphins.

(3) Marine Mammal Observers (MMOs) on Navy vessels:

(i) Civilian MMOs aboard Navy vessels shall be used to research the effectiveness of Navy marine observers, as well as for data collection during other monitoring surveys.

(ii) MMOs shall be field-experienced observers that are Navy biologists or contracted observers.

(iii) MMOs shall be placed alongside existing Navy marine observers during a sub-set of RDT&E events.

(iv) MMOs shall inform the Navy marine observer of any marine mammal

sighting so that appropriate action may be taken by the chain of command. For less biased data, it is recommended that MMOs schedule their daily observations to duplicate the marine observers' schedule.

(v) MMOs shall monitor for marine mammals from the same height above water as the Navy marine observers (*e.g.* bridge wings) and as all visual survey teams, and they shall collect the same data collected by Navy marine observers, including but not limited to:

- (A) Location of sighting;
- (B) Species;
- (C) Number of individuals;
- (D) Number of calves present, if any;
- (E) Duration of sighting;
- (F) Behavior of marine animals sighted;
- (G) Direction of travel;
- (H) Environmental information associated with sighting event including Beaufort sea state, wave height, swell direction, wind direction, wind speed, glare, percentage of glare, percentage of cloud cover; and

(I) When in relation to Navy RDT&E activities did the sighting occur (before, during or after detonations/exercise).

(d) General Notification of Injured or Dead Marine Mammals—Navy personnel shall ensure that NMFS (regional stranding coordinator) is notified immediately (or as soon as clearance procedures allow) if an injured or dead marine mammal is found during or shortly after, and in the vicinity of, any Navy's RDT&E activities utilizing underwater explosive detonations. The Navy shall provide NMFS with species or description of the animal(s), the condition of the animal(s) (including carcass condition if the animal is dead), location, time of first discovery, observed behaviors (if alive), and photo or video (if available).

(e) If there is clear evidence that a marine mammal is injured or killed as a result of the proposed Navy RDT&E activities (*e.g.*, instances in which it is clear that munitions explosions caused the injury or death) the Naval activities shall be immediately suspended and the situation immediately reported by personnel involved in the activity to the Test Director or the Test Director's designee, who will follow Navy procedures for reporting the incident to NMFS through the Navy's chain-of-command.

(f) Annual NSWC PCD Report—The Navy shall submit a report annually on October 1 describing the RDT&E activities conducted and implementation and results of the NSWC PCD Monitoring Plan (through August 1 of the same year) and RDT&E activities. Although additional

information will also be gathered, the MMOs collecting marine mammal data pursuant to the NSWC PCD Monitoring Plan shall, at a minimum, provide the same marine mammal observation data listed below.

- (1) RDT&E Information:
  - (i) Date and time test began and ended;
  - (ii) Location;
  - (iii) Number and types of active sources used in the test;
  - (iv) Number and types of vessels, aircraft, etc., participated in the test;
  - (v) Number and types of underwater detonations;
  - (vi) Total hours of observation effort (including observation time when sonar was not operating);
  - (vii) Total hours of all active sonar source operation;
  - (viii) Total hours of each active sonar source; and
  - (ix) Wave height (high, low, and average during the test) in feet.

(2) Individual Marine Mammal Sighting Info:

- (i) Location of sighting;
- (ii) Species;
- (iii) Number of individuals;
- (iv) Calves observed (y/n);
- (v) Initial detection sensor;
- (vi) Indication of specific type of platform observation made from;
- (vii) Length of time observers maintained visual contact with marine mammal(s);
- (viii) Wave height (in feet);
- (ix) Visibility;
- (x) Sonar source in use (y/n);
- (xi) Indication of whether animal is <200 yd, 200–500 yd, 500–1,000 yd, 1,000–2,000 yd, or >2,000 yd from sonar source above;
- (xii) Mitigation implementation—Whether operation of sonar sensor was delayed, or sonar was powered or shut down, and how long the delay was;

(xiii) If the active MFAS in use is hullmounted, true bearing of animal from ship, true direction of ship's travel, and estimation of animal's motion relative to ship (opening, closing, parallel);

(xiv) Observed behavior—Marine observers shall report, in plain language and without trying to categorize in any way, the observed behavior of the animals (such as animal closing to bow ride, paralleling course/speed, floating on surface and not swimming, etc.); and

(xv) An evaluation of the effectiveness of mitigation measures designed to avoid exposing marine mammals to HFAS/MFAS. This evaluation shall identify the specific observations that support any conclusions the Navy reaches about the effectiveness of the mitigation.

(g) NSWC PCD 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 sonar operations and underwater explosive events for which individual reports are required in § 218.184 (d-f). This report will be submitted at the end of the fourth year of the rule (December 2013), covering activities that have occurred through July 1, 2013.

(h) The Navy shall respond to NMFS comments and requests for additional information or clarification on the NSWC PCD Comprehensive Report and the Annual NSWC PCD Report if submitted within 3 months of receipt. The report 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.

(i) 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.

#### **§ 218.185 Applications for Letters of Authorization.**

To incidentally take marine mammals pursuant to these regulations, the U.S. citizen (as defined by § 216.103 of this chapter) conducting the activity identified in § 218.180(c) (the U.S. Navy) must apply for and obtain either an initial Letter of Authorization in accordance with § 218.186 or a renewal under § 218.187.

#### **§ 218.186 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 § 218.187.

(b) Each Letter of Authorization will 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 will 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).

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

(a) A Letter of Authorization issued under § 216.106 of this chapter and § 218.186 for the activity identified in § 218.180(c) will be renewed annually upon:

(1) Notification to NMFS that the activity described in the application submitted under § 218.185 shall 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) Timely receipt of the monitoring reports required under § 218.184(b); and

(3) A determination by the NMFS that the mitigation, monitoring and reporting measures required under § 218.183 and the Letter of Authorization issued under §§ 216.106 of this chapter and 218.186, 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 of this chapter and 218.187 indicates that a substantial modification 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. Review and comment on renewals of Letters of Authorization are restricted to:

(1) New cited information and data indicating that the determinations made in this document are in need of reconsideration, and

(2) Proposed changes to the mitigation and monitoring requirements contained in these regulations or in the current Letter of Authorization.

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

(d) NMFS, in response to new information and in consultation with the Navy, may modify the mitigation or monitoring measures in subsequent LOAs 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 NSWC PCD Study Area or other locations).

(2) Findings of the Monitoring Workshop that the Navy will convene in 2011 (§ 218.184(i)).

(3) Compiled results of Navy-funded research and development (R&D) studies.

(4) Results from specific stranding investigations (either from the NSWC PCD Study Area or other locations).

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

(6) 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.

**§ 218.188 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 of this chapter and § 218.186 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 § 218.187, 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 § 218.181(b), a Letter of Authorization issued pursuant to § 216.106 of this chapter and § 218.186 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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**DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric Administration**

**50 CFR Part 665**

[Docket No. 090218199-91223-02]

RIN 0648-AX38

**Fisheries in the Western Pacific; Pelagic Fisheries; Vessel Identification Requirements**

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

**ACTION:** Final rule.

**SUMMARY:** This final rule revises identification requirements for U.S. vessels that fish for pelagic management unit species in the western and central Pacific Ocean. Each vessel is required to display its International Telecommunication Union Radio Call Sign (IRCS) or, if an IRCS has not been assigned, its official number preceded by the characters "USA". This rule makes Federal vessel identification requirements consistent with international requirements.

**DATES:** This final rule is effective February 22, 2010.

**ADDRESSES:** Written comments regarding the burden-hour estimates or other aspects of the collection-of-information requirements contained in this final rule may be submitted to William L. Robinson, NMFS, 1601 Kapiolani Blvd. 1110, Honolulu, HI 96814, e-mailed to [David\\_Rostker@omb.eop.gov](mailto:David_Rostker@omb.eop.gov), or faxed to 202-395-7285.

**FOR FURTHER INFORMATION CONTACT:** Jarad Makaiau, Sustainable Fisheries, NMFS PIR, 808-944-2108.

**SUPPLEMENTARY INFORMATION:** This **Federal Register** document is also accessible at [www.gpoaccess.gov/fr/](http://www.gpoaccess.gov/fr/).

This final rule revises the vessel identification requirements at 50 CFR § 665 to make them consistent with international requirements. Currently, each fishing vessel is required to display its official number (United States Coast Guard documentation or other registration number) on the port and starboard sides of the deckhouse or hull, and on an appropriate weather deck, so as to be visible from enforcement vessels and aircraft.

New international rules require each vessel that fishes on the high seas in the Area of the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the