

DEPARTMENT OF COMMERCE**National Oceanic and Atmospheric Administration****50 CFR Part 218****RIN 0648-AW78****Taking and Importing Marine Mammals; U.S. Navy Training in the Virginia Capes Range Complex**

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

ACTION: Final rule.

SUMMARY: NMFS, upon application from the U.S. Navy (Navy), is issuing regulations to govern the unintentional taking of marine mammals incidental to activities conducted at the Virginia Capes (VACAPES) Range Complex for the period of June 2009 through June 2014. 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 June 8, 2009 and is applicable to the Navy on June 5, 2009 through June 4, 2014.

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>.

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 Friday, December 12, 2008 (73 FR 75631). 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 March 17, 2008, NMFS received an application from the Navy requesting authorization for the take of 13 cetacean species incidental to the proposed training activities in the VACAPES Range Complex over the course of 5 years. These training activities are classified as military readiness activities. The Navy states that these training activities may cause various impacts to marine mammal species in the proposed VACAPES Range Complex area. The Navy requests an authorization to take individuals of these cetacean species by Level B Harassment. Further, the Navy requests authorization to take 1 individual Atlantic spotted, 20 common, 1 pantropical spotted, and 3 striped dolphins per year by injury, and 1 individual common dolphin per year by mortality, as a result of the proposed training activities in the VACAPES Range Complex. Please refer to Table 29 of the LOA application for detailed information of the potential exposures from explosive ordnance (per year) for marine mammals in the VACAPES Range Complex. However, due to the proposed mitigation and monitoring measures, NMFS does not expect that the proposed action would result in any marine mammal mortality. Therefore, no mortality would be authorized for the Navy's VACAPES Range Complex training 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 (73 FR 75631; December 12, 2008).

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 number of the training activities. These training activities consist of surface warfare [Missile Exercise (MISSILEX) and High-speed Anti-Radiation Missile Exercise (HARMEX)], mine warfare [Mine Exercises (MINEX)], amphibious warfare

[Firing Exercise (FIREX)], strike warfare [Bombing Exercise (BOMBEX)], and vessel movement to, from and within

the VACAPES Range Complex Study Area. The narrative description of the action contained in the proposed rule

has not changed. Table 1 summarizes the nature and levels of these planned activities.

TABLE 1—LEVELS OF TRAINING EVENTS INVOLVE EXPLOSIVES PLANNED IN THE VACAPES RANGE COMPLEX PER YEAR

Operation	Platform	System/ordnance	Number of events	Duration per event
Missile Exercise (MISSILEX) (Air to Surface).	MH-60S, HH-60H	AGM-114 (Hellfire missile)	60 sorties (60 missiles)	1 hour.
	F/A-18, P-3C, and P-8A	AGM-65 E/F (Maverick missile).	20 sorties (20 missiles)	1 hour.
Bombing Exercise (BOMBEX) (Air-to-Surface, At-Sea).	F/A-18	MK-83/GBU-32 [1,000 lb High Explosive (HE) bomb].	5 events (20 bombs, 4 bombs/event).	1 hour.
Mine Neutralization	MH-60S	AMNS	140 sorties (30 rounds)	1.5 hours.
FIREX with IMPASS	EOD	20 lb charges	24 events	6–8 hours.
	CG, DDG	5" gun (IMPASS)	22 events (858 HE rounds, 39 HE per event)).	8 hours.

VACAPES Range Complex

The VACAPES Range Complex proposed rule contains a description of the VACAPES Study Area along with a

description of the areas in which certain types of activities will occur. Table 2, included here, summarizes the areas in which explosive events will occur and

their frequency of occurrence. The description of the VACAPES Range Complex Study Area in the proposed rule has not changed.

TABLE 2—NUMBER OF EVENTS UTILIZING MUNITIONS WITHIN THE VACAPES RANGE COMPLEX

Sub-area	Ordnance	Winter	Spring	Summer	Fall	Annual totals
Air-K	MISSILEX					80
	Hellfire	11.25	11.25	11.25	11.25	
	W-72A (2)	3.75	3.75	3.75	3.75	
Air-K	Maverick	5	5	5	5	
5C/D	FIREX					22
	5" rounds	1.83	1.83	1.83	1.83	
	7C/D and 8C/D	1.83	1.83	1.83	1.83	
	1C1/2	1.83	1.83	1.83	1.83	
W-50 UNDET	MINEX					54
	5 LB*	7.50	7.50	7.50	7.50	
W-50 UNDET	20 LB	4.00	4.00	12.00	4.00	
Air-K	BOMBEX					5
	MK-83**	1.25	1.25	1.25	1.25	

* The use of 3.24 lb charges during AMNS training were conservatively modeled as 5 lb charges.

** One event using the MK-83 bombs consists of 4 bombs being dropped in succession. For example, in VACAPES Air-K there are 5 MK-83 events, which mean that a total of 20 bombs will be dropped per year.

Description of Marine Mammals in the Area of the Specified Activities

There are 34 marine mammal species with possible or confirmed occurrence in the VACAPES Range Complex. As indicated in Table 3, there are 33 cetacean species (7 mysticetes and 26 odontocetes) and one pinniped species. Table 6 also includes the federal status of these marine mammal species. Six

marine mammal species listed as federally endangered under the Endangered Species Act (ESA) occur in the VACAPES Range Complex: the humpback whale, North Atlantic right whale, sei whale, fin whale, blue whale, and sperm whale. Although it is possible that any of the 34 species of marine mammals may occur in the VACAPES Range Complex, only 24 of

those species are expected to occur regularly in the region. The proposed rule also includes a discussion of the methods used to estimate marine mammal density in the VACAPES Study Area. The Description of Marine Mammals in the Area of the Specified Activities section has not changed from what was in the proposed rule (73 FR 75631, pages 75635–75636).

TABLE 3—MARINE MAMMAL SPECIES FOUND IN THE VACAPES RANGE COMPLEX

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.	

TABLE 3—MARINE MAMMAL SPECIES FOUND IN THE VACAPES RANGE COMPLEX—Continued

Family and scientific name	Common name	Federal status	
<i>B. brydei</i>	Bryde's whale.	Endangered. Endangered. Endangered.	
<i>B. borealis</i>	Sei whale		
<i>B. physalus</i>	Fin whale		
<i>B. musculus</i>	Blue whale		
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 minus</i>	True's beaked whale.		
<i>M. europaeus</i>	Gervais' beaked whale.		
<i>M. bidens</i>	Sowerby's beaked whale.		
<i>M. densirostris</i>	Blainville's beaked whale.		
<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>Delphinus delphis</i>	Common dolphin.		
<i>Lagenodephis hosei</i>	Fraser's dolphin.		
<i>Lagenorhynchus acutus</i>	Atlantic white-sided 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>Globicephala melas</i>	Long-finned pilot whale.		
<i>G. macrorhynchus</i>	Short-finned pilot whale.		
<i>Phocoena phocoena</i>	Harbor porpoise.		
Order Carnivora			
Suborder Pinnipedia			
<i>Phoca vitulina</i>	Harbor seal.		
Suborder Sirenia			
<i>Trichechus manatus</i>	West Indian manatee.		

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 VACAPES 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 underwater explosive detonations from MISSILEX, BOMBEX, MINEX, and FIREX may potentially affect marine mammals (some of which NMFS would not classify as harassment). See 73 FR 75631; December 12, 2008; pages 75636–75646. 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 MISSILEX, BOMBEX, MINEX, and FIREX from the proposed rule has not changed.

The information pertaining to HARMEX has changed from the Proposed Rule. Further analyses show that HARMEX would have no effects on marine mammals because these types of missiles detonate 30–60 ft (9.1–18.3 m) above the water surface. Therefore, they are not included in the underwater explosive exposure modeling in the Final Rule since no marine mammal exposures are anticipated.

Later, in the Estimated Take of Marine Mammals Section, NMFS relates and quantifies the potential effects to marine mammals from underwater detonation of explosives discussed here to the MMPA definitions of Level A and Level B Harassment. NMFS has also considered the effects of mortality on

these species, although mortality is neither expected, nor will it be authorized.

Additional analyses on potential impacts to marine mammals from vessel movement within the VACAPES Range Complex 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 mammals taxonomy groups, Richardson *et al.* (1995) provided the following assessment regarding cetacean reactions to vessel traffic:

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

Baleen whales: "When baleen whales receive low-level sounds from distant or stationary vessels, the sounds often seem to be ignored. Some whales approach the sources of these sounds. When vessels approach whales slowly and 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 Jackson, 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 VACAPES Range Complex, 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, operations involving vessel movements occur intermittently and are variable in duration, ranging from a few hours up to 2 weeks. These operations are widely dispersed throughout the VACAPES Range Complex OPAREA, which is a vast area encompassing 27,661 square nautical miles (nm²) (an area approximately the size of Indiana). The Navy logs about 1,400 total vessel days within the Study Area during a typical year. Consequently, the density of ships within the Study Area at any given time is extremely low (i.e., less than 0.0004 ships/nm²).

Moreover, naval vessels transiting the study area or engaging in the training exercises will not actively or intentionally approach a marine mammal or change speed drastically. Except under certain mitigation measures that protect right whales and other marine mammals from vessel strike, all vessels transit to, from, and within the range complexes will be traveling at speeds generally ranging from 10 to 14 knots.

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 VACAPES Range Complex training activities described in the proposed rule are considered military readiness activities.

NMFS reviewed the Navy’s proposed VACAPES Range Complex training activities and the proposed VACAPES Range Complex 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 b, c, and d 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 a, 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 a, 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 a, 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 (73 FR 75631, pages 75646–75649). The Navy’s measures address personnel training, lookout and watchstander responsibilities, operating procedures for training activities using underwater detonations of explosives and firing exercises, and mitigation related to vessel traffic and the North Atlantic right whale. No changes have been made to the mitigation measures described in the proposed rule except as noted below.

Regarding nighttime monitoring in the Personnel Training Lookouts section (73 FR 25631, page 25647), slight wording changes have been made for Bullet 6 to read: “At night, to increase effectiveness, lookouts would not continuously sweep the horizon with their eyes. Instead, lookouts would 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, they would 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. Lookouts will also have night vision devices available for use.”

For mitigation measures under FIREX (73 FR 25631, page 25648), corrections were made to reduce the buffer zone from 640 yards (585 m) to 600 yards (548 m). Therefore, Bullets 3 and 4 of the FIREX mitigation measure read as:

3. “Big Eyes” on the ship will be used to monitor a 600 yd (548 m) buffer zone around the target area for marine mammals during naval-gunfire events. Due to the distance between the firing position and the buffer zone, lookouts are only expected to visually detect breaching whales, whale blows, and large pods of dolphins and porpoises.

4. Ships will not fire on the target if marine mammals are detected within or approaching the 600 yd (548 m) buffer zone. If marine mammals are present, operations would be

suspended. Visual observation will occur for approximately 45 minutes, or until the animal has been observed to have cleared the area and is heading away from the buffer zone.

For mitigation measures under MINEX (73 FR 25631, page 25649), corrections were made to increase the buffer zone from 656 yards (600 m) to 700 yards (640 m). Therefore, Bullet 2 of the MINEX mitigation measure reads as:

2. Observers will survey the Zone of Influence (ZOI), a 700 yd (640 m) radius from detonation location, for marine mammals from all participating vessels during the entire operation. A survey of the ZOI (minimum of 3 parallel tracklines 219 yd [200 m] apart) using support craft will be conducted at the detonation location 30 minutes prior through 30 minutes post detonation. Aerial survey support will be utilized whenever assets are available.

The buffer zones for FIREX and MINEX activities were incorrectly noticed in the proposed rule for the VACAPES Range Complex. NMFS has consulted with the Navy and the Navy has stated that the buffer zones should be corrected to ensure consistency for all Navy FIREX and MINEX activities across multiple range complexes. The buffer zones identified in this final rule are consistent with those established in the Southern California Range Complex final rule (74 FR 2882; January 21, 2009). NMFS does not believe that a decrease in the FIREX buffer zone of 40 yards would affect, in any significant way, the Navy’s ability to detect marine mammals or provide adequate protection to marine mammals that may be in the vicinity of a FIREX activity. Moreover, an increase in the MINEX buffer zone will further minimize any adverse effects that marine mammals could experience as a result of the MINEX activity.

In response to a comment from the Marine Mammal Commission, 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 training 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, regarding the North Atlantic right whale (NARW) vessel collision measures, NMFS expanded the final rule to include vessel collision avoidance measures for the South Atlantic and the Northeast Atlantic to be consistent with the U.S. Navy’s Atlantic Fleet Active Sonar Training (AFAST) rule. Although the VACAPES Range Complex is outside the South Atlantic

and the Northeast Atlantic region, the Navy is required to comply with the same ship collision measures while transiting and conducting exercises within specific NARW areas along the East Coast. The specific vessel collision measures in the Northeast Atlantic region are listed in the regulatory text of the final rule.

NMFS has determined that these mitigation measures (which include a suite of measures that specifically address vessel transit and the NARW) 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:

(1) 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 effects analyses.

(2) An increase in our understanding of how many marine mammals are likely to be exposed to levels of underwater detonations or other stimuli that we associate with specific adverse effects, such as behavioral harassment, temporary threshold shift of hearing sensitivity (TTS), or permanent threshold shift of hearing sensitivity (PTS).

(3) An increase in our understanding of how marine mammals respond (behaviorally or physiologically) to underwater detonations 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).

(4) An increased knowledge of the affected species.

(5) An increase in our understanding of the effectiveness of certain mitigation and monitoring measures.

(6) A better understanding and record of the manner in which the authorized entity complies with the incidental take authorization.

Proposed Monitoring Plan for the VACAPES Range Complex 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 VACAPES Range Complex 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 VACAPES Range Complex 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 training events in the VACAPES Range Complex are described below. These methods include a combination of individual elements that are designed to allow a comprehensive assessment.

I. Vessel or Aerial Surveys

(A) The Holder of this Authorization shall visually survey a minimum of 2 explosive events per year, one of which shall be a multiple detonation event. One of the vessel or aerial surveys should involve professionally trained marine mammal observers (MMOs).

(B) If operationally feasible, for specified training events, aerial or vessel surveys shall be used 1–2 days prior to, during (if reasonably safe), and 1–5 days post detonation.

(C) Surveys shall include any specified exclusion zone around a particular detonation point plus 2,000 yards beyond the border of the exclusion zone (i.e., the circumference of the area from the border of the exclusion zone extending 2,000 yards outwards). For vessel based surveys a passive acoustic system (hydrophone or towed array) could be used to determine

if marine mammals are in the area before and/or after a detonation event.

(D) When conducting a particular survey, the survey team shall collect:

- Location of sighting;
- Species (if not possible, indicate whale, dolphin or pinniped);
- Number of individuals;
- Whether calves were observed;
- Initial detection sensor;
- Length of time observers

maintained visual contact with marine mammal;

- Wave height;
- Visibility;
- Whether sighting was before, during, or after detonations/exercise, and how many minutes before or after;
- Distance of marine mammal from actual detonations (or target spot if not yet detonated);

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

• Resulting mitigation implementation—Indicate whether explosive detonations were delayed, ceased, modified, or not modified due to marine mammal presence and for how long; and

• If observation occurs while explosives are detonating in the water, indicate munition type in use at time of marine mammal detection (e.g., were the 5-inch guns actually firing when the animals were sighted? Did animals enter an area 2 minutes after a huge explosion went off?).

II. Passive Acoustic Monitoring

The Navy is required to conduct passive acoustic monitoring when operationally feasible.

(A) Any time a towed hydrophone array is employed during shipboard surveys the towed array shall be deployed during daylight hours for each of the days the ship is at sea.

(B) The towed hydrophone array shall be used to supplement the ship-based systematic line-transect surveys (particularly for species such as beaked whales that are rarely seen).

III. Marine Mammal Observers on Navy Platforms

(A) Marine mammal observers (MMOs) selected for aerial or vessel survey shall be placed on a Navy platform during one of the exercises being monitored per year. The remaining designated exercise(s) shall be monitored by the Navy lookouts/watchstanders.

(B) The MMO must possess expertise in species identification of regional marine mammal species and experience collecting behavioral data.

(C) MMOs shall not be placed aboard Navy platforms for every Navy training event or major exercise, but during specifically identified opportunities deemed appropriate for data collection efforts. The events selected for MMO participation shall take into account safety, logistics, and operational concerns.

(D) MMOs shall observe from the same height above water as the lookouts.

(E) The MMOs shall not be part of the Navy's formal reporting chain of command during their data collection efforts; Navy lookouts shall continue to serve as the primary reporting means within the Navy chain of command for marine mammal sightings. The only exception is that if an animal is observed within the shutdown zone that has not been observed by the lookout, the MMO shall inform the lookout of the sighting, and the lookout shall take the appropriate action through the chain of command.

(F) The MMOs shall collect species identification, behavior, direction of travel relative to the Navy platform, and distance first observed. All MMO sightings shall be conducted according to a standard operating procedure. Information collected by MMOs should be the same as those collected by Navy lookout/watchstanders described above.

The Monitoring Plan for VACAPES Range Complex has been designed as a collection of focused "studies" (described fully in the VACAPES Monitoring Plan) to gather data that will allow the Navy to address the following questions:

(a) What are the behavioral responses of marine mammals and sea turtles that are exposed to explosives?

(b) Is the Navy's suite of mitigation measures effective at avoiding injury and mortality of marine mammals and sea turtles?

Data gathered in these studies will be collected by qualified, professional marine mammal biologists or trained Navy lookouts/watchstanders that are experts in their field. This monitoring plan has been designed to gather data on all species of marine mammals that are observed in the VACAPES Range Complex study area.

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 a recommendation that a workshop or panel be convened to solicit input on the monitoring plan from researchers, experts, and other interested parties. The VACAPES Range Complex 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 concept 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 VACAPES Range Complex 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 VACAPES Range Complex, the Navy will complete the Integrated Comprehensive Monitoring Program (ICMP) Plan by the end of 2009. The ICMP is currently in development by the Navy, with Chief of Naval Operations Environmental Readiness Division (CNO-N45) having the lead. The program does not duplicate the monitoring plans for individual areas (e.g. AFAST, HRC,

SOCAL); instead it is intended 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. A program review board is also being considered to provide additional guidance. 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 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 VACAPES Range Complex rule and the other planned Navy rules (e.g. 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. For example, if careful prioritization and planning through the

ICMP (which would include a review of both past monitoring results and current scientific developments) were to show that a large, intense monitoring effort in Hawaii would likely provide extensive, robust and much-needed data that could be used to understand the effects of sonar throughout different geographical areas, it may be appropriate to have other range complexes dedicate money, resources, or staff to the specific monitoring proposal identified as "high priority" by the Navy and NMFS, in lieu of focusing on smaller, lower priority projects divided throughout their home 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 VACAPES Range Complex 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 VACAPES Range Complex exercises 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 VACAPES Range Complex or other locations)

- Findings of the Workshop that the Navy will convene in 2011 to analyze monitoring results to date, review current science, and recommend modifications, as appropriate to the monitoring protocols to increase monitoring effectiveness.

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

- Results from specific stranding investigations (either from VACAPES Range Complex 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.

NMFS will work with the Navy to develop tables that allow for efficient submission of the information required below.

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 training exercise 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 VACAPES Range Complex Monitoring Plan Report

The Navy shall submit a report annually on March 1 describing the implementation and results (through January 1 of the same year) of the VACAPES Range Complex Monitoring Plan, described above. Data collection methods will be standardized across range complexes to allow for comparison in different geographic locations. Although additional information will also be gathered, the marine mammal observers (MMOs) collecting marine mammal data pursuant to the VACAPES Range Complex Monitoring Plan shall, at a minimum, provide the same marine mammal observation data required in the major range complex training exercises section of the Annual VACAPES Range Complex Exercise Report referenced below.

The VACAPES Range Complex Monitoring Plan Report may be provided to NMFS within a larger report that includes the required Monitoring Plan Reports from multiple Range Complexes.

Annual VACAPES Range Complex Exercise Report

The Navy is in the process of improving the methods used to track explosives used to provide increased granularity. The Navy will provide the information described below for all of their explosive exercises. Until the Navy is able to report in full the information below, they will provide an annual update on the Navy's explosive tracking methods, including improvements from the previous year.

(i) Total annual number of each type of explosive exercise (of those identified as part of the "specified activity" in this final rule) conducted in the VACAPES Range Complex.

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

VACAPES Range Complex 5-yr Comprehensive Report

The Navy shall submit to NMFS a draft report that analyzes and summarizes all of the multi-year marine mammal information gathered during the VACAPES Range Complex exercises for which annual reports are required (Annual VACAPES Range Complex Exercise Reports and VACAPES Range Complex Monitoring Plan Reports). This report will be submitted at the end of the fourth year of the rule (May 2013), covering activities that have occurred through December 1, 2012.

Comments and Responses

On December 12, 2008, NMFS published a proposed rule (73 FR 75631) in response to the Navy's request to take marine mammals incidental to military readiness training in the VACAPES Range Complex 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, comments from the Marine Mammal Commission (Commission), comments from the Commonwealth of Virginia Department of Environmental Quality (Virginia DEQ, including the Department of Game and Inland Fisheries (VDGIF) and the Department of Conservation and Recreation), comments from the International Fund for Animal Welfare, and comments from the Natural Resources Defense Council (on behalf of itself, The Humane Society of the United States, Whale and Dolphin Conservation Society, Cetacean Society International, Ocean Futures Society, Jean-Michel Cousteau). The comments are summarized and sorted into general topic areas and are addressed below. Full copies of the comment letters may be accessed at <http://www.regulations.gov>.

MMPA Concerns

Comment 1: The Commission and IFAW point out that there are differences between the Navy's and NMFS' estimates of maximum annual takes for the proposed exercises in the VACAPES range complex and that these differences should be reconciled.

Response: NMFS does not believe there are differences between the Navy's

and NMFS' estimates of maximum annual takes for the VACAPES Range Complex training exercises. The perceived differences the Commission raised may be the differences between the Navy's initial LOA application and its subsequent addendum. The Navy states that further analyses on the impacts from the proposed action and the reduction of BOMBEX exercises are the reason for the change of take estimates. Specifically, the Navy states that "HARM missile explodes no less than 30 ft above the water, it is assumed the amount of acoustic energy entering the water would be negligible, so exposures from that weapon should be removed from the MISSILEX totals. Secondly, the size of the BOMBEX location was reduced to avoid important fishing areas, the North Atlantic Right Whale migratory corridor, and the Norfolk Canyon area which lowered potential exposures for certain species." The amendment is posted on NMFS incident take Web site at <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>.

Comment 2: The Commission recommends that NMFS include in its authorization the number of lethal takes and takes by Level A harassment requested by the Navy and regularly confer with the Navy to monitor the actual number of such takes to ensure that they do not exceed the authorized number.

Response: NMFS agrees with the Commission. NMFS has, through this final rule, included the authorized numbers of marine mammal takes and the manner of take (*i.e.*, lethal, Level A or Level B). In addition, monitoring and reporting measures are prescribed to ensure that all takes as a result of the training activities are accounted for and documented. The MMOs and Navy's lookouts/watchstanders will report any sightings of marine mammals in the take zone through the chain of command. Furthermore, the Navy is required to submit an Annual VACAPES Range Complex Monitoring Plan Report. Prior to issuing any subsequent LOAs, NMFS will review the Navy's monitoring efforts and data from the previous year to determine whether any new measures will be necessary or a modification to prior year's measures.

Comment 3: The Virginia DEQ recommends that NMFS develop the regulations to reflect harbor seal, harp seal, and gray seal as their occurrence in the inshore and nearshore waters of the mid-Atlantic region are becoming more frequent in the fall and winter months.

Response: Based on the analyses by the Navy and NMFS, there are 34 marine mammal species with possible

or confirmed occurrence in the VACAPES Range Complex. As indicated in the proposed rule, there are 33 cetacean species and one pinniped species (harbor seal). Harp and gray seals occur primarily in the North Atlantic, with the former species found mostly in the Arctic region. Although there have been increased anecdotal sightings of these species in the mid-Atlantic coastal waters, their presence in the mid-Atlantic region is still very rare (Waring *et al.*, 2008).

Comment 4: The VDGIF states that the species take list appears to be accurate; however, the number of animals predicted to be affected for both Level A and Level B harassment are probably underestimated, because the species density data from which take estimates are derived are based on too few data. Therefore, no marine mammal species should be considered unlikely to be affected just because there are no density data available (*e.g.*, beaked whales). Since all of the species on the list exist in the Virginia and North Carolina Outer Banks stranding records, collected and kept by the Virginia Aquarium Stranding Response Program, the VDGIF recommends that all species on the take list should be considered susceptible to Level B harassment year round. The IFAW states that if one of these animals not included in the incidental take list is present in the area of testing, there is a higher probability that the animal will be struck, and that the assumption that one third of the cetacean species in the area will not be exposed nor affected by noise represents an oversight in the analysis of potential takes.

Response: NMFS does not agree with the VDGIF and IFAW's assessment. The most current stock assessment reports (Waring *et al.*, 2008) were used to calculate density estimates. As summarized in the proposed rule and described more fully in the Navy's FEIS, the Navy used the best data and methods available to calculate density, including other literature as well as habitat modeling that considered bathymetry, distance from shelf break, sea surface temperature, and Chlorophyll a concentration. All spatial models and density estimates were reviewed by NMFS technical staff. The Navy's model utilizes uniform density, but it also divides the east coast into meaningful sections, such as on-shelf and off-shelf and the different OPAREAS.

Although stranding records indicate that certain species may be found dead or injured in the Virginia area, this does not mean that these species are normally distributed in this area.

Rather, certain stranded species are likely more common in other geographic regions and due to their death or injury in those areas, they may drift and wash ashore in the Virginia area.

NMFS does not agree that all species identified in a stranding list would be affected by the proposed activity. As noted above, NMFS relied on the best available data to ascertain density estimates. There are certain species for which estimates are unavailable because their presence in the VACAPES Range Complex Study Area is rare (e.g., Bryde's whale and false killer whale are not reported in NMFS stock assessment reports (SARs) for the U.S. Atlantic and Gulf of Mexico regions for the stock assessment). NMFS considers it unlikely that species whose presence in the action area is rare would be affected by the proposed activities.

For species in which NMFS possesses density data, the Navy conducted modeling to calculate the potential takes of these marine mammals. As described in the proposed rule, estimating the take that could result from the proposed activities entails the following four steps: propagation model estimates animals exposed to sources at different levels; further modeling determines the number of exposures to levels indicated in the criteria above (i.e., number of takes); post-modeling corrections refine estimates to make them more accurate; mitigation is taken into consideration. Detailed analyses regarding the models used, the assumptions used in the models, and the process of estimating take is available in Appendix J of the Navy's EIS for the VACAPES Range Complex. The Navy's model revealed that species such as blue whale, sei whale, spinner dolphin, Fraser's dolphin, Atlantic white-sided dolphin, harbor porpoise, and harbor seals would not be taken by the proposed activities because their presence in the VACAPES Range Complex Study Area is rare.

Acoustic Impacts

Comment 5: The IFAW states that the Navy failed to cite any scientific data to support the claim that "explosive ordnance and underwater detonations would result in only short-term effects to most individuals exposed." The IFAW also states that FIREX and BOMBEX yield a novel situation for impact analysis since they employ multiple explosions, and that there is no existing data on the impacts of multiple explosions and therefore potential impacts had to be extrapolated from single explosion testing. The IFAW further states that although a detailed modeling system was developed, the cumulative effect of multiple explosions

may far exceed the sum of its parts. Further research is needed before claims can be made as to the impacts of multiple explosions on marine mammals.

Response: NMFS does not agree with the IFAW's assessment. Although few scientific data are currently available on the behavioral effects of explosive ordnance on marine mammals, studies of marine mammal reactions to intense underwater sounds (Finneran *et al.*, 2000; Schlundt *et al.*, 2000; Finneran and Schlundt, 2004), studies of underwater detonations on human divers and territorial mammals (Gaspin, 1983; Goertner, 1982), studies on the auditory anatomy of marine mammals (Ketten, 1998), and studies on source characterization of underwater explosions (Cole, 1948; Gaspin and Shuler, 1971; Rogers, 1977; Urick, 1983) were reviewed. Based on the conclusions of these studies in terms of the impact ranges and levels from different explosives and their acoustic impacts, NMFS and the Navy determined the use of explosive ordnance and underwater detonations in the Navy's VACAPES Range Complex (including implementation of mitigation and monitoring measures), would result in only short-term effects to most individuals exposed. These analyses, including the impact analyses on multiple explosions, were described in detail in Appendix A "Draft Technical Risk Assessment for the Use of Underwater Explosives in the Virginia Capes (VACAPES) Range Complex" in the Navy's LOA application and were referenced in the proposed rule (73 FR 75631; December 12, 2008).

Mitigation

Comment 6: The Commission recommends that NMFS include in the final rule a requirement that, in all but emergency situations or where the need for realistic training requires greater speed or maneuverability, the Navy abide by the seasonal restrictions applicable to other vessels under NMFS' ship-speed regulations (50 CFR 224.105) to reduce the risk of ship collisions with right whales.

Response: NMFS does not agree with the Commission recommendation. NMFS' final rule on ship speed restriction does not apply to vessels operated by U.S. Federal agencies. NMFS, in consultation with other Federal agencies, has determined that the national security, navigational, and human safety missions of some agencies may be compromised by mandatory vessel speed restrictions. However, this exemption will not relieve the Navy of its obligations to consult, under section

7 of the ESA, on how their activities may affect listed species. NMFS acknowledges that the Navy already provides guidance to vessel operators and fleets with regard to conservation measures to protect right whales and other endangered species, as well as contribute to conservation efforts generally.

For the proposed VACAPES Range Complex training activities, the Navy has developed a series of mitigation measures that closely follow NMFS' ship strike rule. These mitigation measures are described in the Proposed Mitigation Measures section of the proposed rule (73 FR 76578; December 17, 2008). In addition, NMFS worked with the Navy regarding their vessel operations to determine where ESA section 7 consultations would be appropriate.

Comment 7: The Commission recommends that if a serious injury or death occurs and that injury or death could have resulted from the authorized Navy operations, NMFS and Navy jointly investigate the circumstances and steps needed to avoid similar occurrences.

Response: NMFS concurs with the Commission's recommendation and will work with the Navy to address such an occurrence if and when it arises.

Comment 8: The Virginia DEQ and IFAW state that they note that mitigation measures for most training exercises are largely comprised of maintaining lookouts or watchstanders to look for marine mammals, sea turtles, rafts of sargassum grass and other indicators of biological activity in the buffer zones or zones of impact. As such, most mitigation measures rely entirely on the observers' ability to detect sea turtles, marine mammals, and indicators of their presence such as sargassum grass under all conditions (e.g., high seas, after dark, storms, etc.). The IFAW states that this mitigation strategy is insufficient for detecting right whales in the vicinity of Navy training exercises.

Response: NMFS does not agree with the Virginia DEQ and IFAW's assessment. Although visual monitoring by lookouts or watchstanders is an important component of monitoring measures for the Navy's VACAPES Complex Range training exercises, it is not the only mitigation measure for most training exercises. Other mitigation and monitoring measures are also proposed to reduce any potential impacts to marine mammals that would result from the proposed training activities. These include establishing safety zones for all exercises involving underwater detonations (FIREX,

BOMBEX, MINEX, and MISSILEX), aerial surveys of the action area, limiting certain exercises (BOMBEX, FIREX, and MINEX) to daylight hours, etc. In addition, Navy lookouts or watchstanders are specifically trained to detect anomalies in the water around the ship and both the safety of Navy personnel and success in the training exercise depend on the lookout being able to detect objects (e.g., marine mammals) effectively around the ship.

Additionally, NMFS has identified ports located in the western Atlantic Ocean, offshore of the southeastern United States, where vessel transit during right whale migration is of highest concern for potential ship strike. These ports include the Hampton Roads entrance to the Chesapeake Bay, which includes the concentration of Atlantic Fleet vessels in Norfolk, Virginia. Navy vessels are required to use extreme caution and operate at a slow, safe speed consistent with mission and safety during the months of right whale migration and within a 20 nm (37 km) arc (except as noted) of the specified reference points.

Comment 9: The VDGIF recommends NMFS expand the “elevated time of awareness” for right whales (Table 14 in the proposed FR notice for the proposed rule, 73 FR 75631; December 12, 2008) to Oct–April (without excluding January) or, at a minimum, Nov–March (without excluding January) based on strandings that have occurred in our region throughout these months. The VDGIF states that recent observations have been made of new mothers as far north as Wilmington, North Carolina during the winter calving season (i.e., Nov. 15–April 15), which provides further justification for expanding the period of elevated awareness for Virginia area and North Carolina.

Response: The “elevated time of awareness” for right whales already covers the months between October–April in South Carolina and December–April in North Carolina. Although certain months were not covered in areas north of North Carolina such as the Chesapeake Bay, Delaware Bay, off the coast of New York and New Jersey, this is because right whales are extremely rare in these waters during those months. Regarding the recent sighting (January 2009) of right whale cows as far north as Wilmington, North Carolina, this location and month are covered under the current “elevated time of awareness” for right whales.

Comment 10: The VDGIF states that the proposed mitigation measures and reporting requirement of the proposed rule are acceptable. Therefore, the VDGIF has no comments on them.

Response: Comments noted.

Monitoring and Reporting

Comment 11: The Commission recommends that NMFS work with the Navy to design studies to collect and analyze data necessary to characterize the risk of collisions with right whales by Navy vessels.

Response: Comment noted. The reporting conditions for the Navy’s training activities require the Navy to report all marine mammal (right whale included) sighting information during exercises. This information includes the location of sightings, species, number of individuals, and calves observed, etc. These data can later be analyzed to characterize the risk of collisions with marine mammals by Navy vessels. To the extent resources exist, NMFS will endeavor to work with the Navy to develop more formal studies that would allow each agency to obtain the necessary data to characterize the risk of Navy vessel collisions with right whales and to take further steps to minimize the probability of a vessel strike.

Comment 12: The Commission recommends that NMFS work with the Navy to sponsor a peer review of existing risk analysis procedures and the interpretation and use of survey or other data in those analyses, and work with the Navy to validate the effectiveness of monitoring and mitigation measures, preferably before beginning or, if that is infeasible, in conjunction with the Navy operations subject to this incidental take authorization.

Response: At this time, NMFS concludes that the risk analyses for naval activities and MMPA rulemakings are appropriate. If necessary, NMFS and the Navy will coordinate at some future date to determine whether additional consideration of the risk analysis procedure is warranted. Regarding the effectiveness of monitoring and mitigation measures, this final rule includes a requirement for the Navy to convene a Monitoring Workshop in 2011 in which the 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. NMFS believes that this type of workshop, with participants including the Navy, NMFS, researchers, invited experts, and other interested parties, in combination with an adaptive management plan that allows for modification would provide a means for the Navy to adjust the Monitoring Plan as needed to more effectively accomplish the goals of monitoring set forth earlier. NMFS

would incorporate any changes into future LOAs and future rules as necessary. NMFS has statutory responsibility to prescribe regulations pertaining to mitigation, monitoring, and reporting, and will, in coordination with the Navy, develop the most effective and appropriate mitigation, monitoring, and reporting protocols for future authorizations.

In addition, NMFS has been working with the Navy throughout the rulemaking process to develop a series of mitigation, monitoring, and reporting protocols. NMFS believes that the measures prescribed in this final rule are practicable, effective and will afford the necessary protection to marine mammals.

NEPA

Comment 13: The Virginia DEQ requests that the final Integrated Comprehensive Monitoring Program (ICMP) be included in the EIS if possible.

Response: The ICMP will not be completed until the summer of 2009, therefore, it is not possible to include the ICMP in the FEIS. However, the Navy will include a comprehensive monitoring plan and a summary of the ICMP in the FEIS. In addition, the site specific comprehensive monitoring plan and a summary of the ICMP are included in the Navy’s VACAPES Range Complex final rule.

Miscellaneous Issues

Comment 14: The Virginia DEQ requests that NMFS consider in the final regulations that NMFS (1) coordinate with the Virginia Department of Game and Inland Fisheries and the U.S. Fish and Wildlife Service for information regarding the possible impacts to protected species and to ensure compliance with protected species legislation, and (2) contact Rene Hypes of the Virginia Department of Conservation and Recreation Division of Natural Heritage at (804) 371–2708 for an update on natural heritage information if a significant amount of time passes before the proposed activities are initiated since new and updated information is continually added to Biotics.

Response: NMFS published a proposed rule for the VACAPES Range Complex training exercises (73 FR 75631; December 12, 2008) that included a detailed description of protected marine mammal species within the Range Complex. NMFS will work with Virginia as necessary and advise the State if there is any change to the proposed action and updates on natural resources information. With

respect to other protected species such as ESA listed turtles or fish, the Navy is conducting a Section 7 consultation with NMFS. The Navy has completed consultation with Delaware, Maryland, Virginia, and North Carolina under the Coastal Zone Management Act. In addition, NMFS is working to ensure that the final rule for the proposed action and the LOAs issued to the Navy is in compliance with protected species legislation through the ESA consultation and the MMPA permitting review.

NMFS does not expect there will be a significant amount of time that passes between finalization of rule and the commencement of naval exercises. To the extent there is, NMFS will coordinate, as appropriate, with the State and FWS.

Comment 15: The NRDC commented on the proposed rule with its earlier comments on the NMFS' proposed rule for the Navy's Atlantic Fleet Active Sonar Training (AFAST) and the Navy's AFAST DEIS. Specifically, the NRDC states that neither NMFS in its proposed rule, nor the Navy in its EIS offers sufficient measures to mitigate the harmful impacts of high intensity sonar. The NRDC further states that NMFS and the Navy's analysis substantially understates the potential effects of sonar on marine wildlife.

Response: NRDC's comments are inapplicable to the proposed Navy training activities in the VACAPES Range Complex. The Navy does not intend, as part of its proposed action, to conduct training with MFAS, HFAS, and Improved Extended Echo Ranging (IEER)/Advanced Extended Echo Ranging (AEER). The Navy's request for a LOA for sonar related training was addressed in the Final Rule and LOA for AFAST which was issued by NMFS on January 22, 2009, and published in the

Federal Register on February 19, 2009 (74 FR 4844).

Comment 16: 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 VACAPES Range Complex; thus, there would be no affect 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 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 (73 FR 75631; December 12, 2008) and have not changed.

Acoustic Take Criteria

In the Acoustic Take Criteria section of the proposed rule, NMFS described the development and application of the acoustic criteria for explosive detonations (73 FR 76531; December 12, 2008). No changes have been made to the discussion contained in this section of the proposed rule.

Take Calculations

In the Take Calculation section of the proposed rule, NMFS described in detail how the take estimates were calculated through modeling (73 FR 76531). No changes have been made to the discussion contained in this section of the proposed rule.

A summary of potential exposures from ordnance (per year) for marine mammals in the VACAPES Range Complex is listed in Table 4 (these exposure estimates are similar to those presented in the proposed rule).

TABLE 4—SUMMARY OF POTENTIAL TAKES FROM EXPLOSIVE ORDNANCE (PER YEAR) FOR MARINE MAMMALS IN THE VACAPES RANGE COMPLEX

Species	Level B harassment	Level A harassment	Mortality
Fin whale	2	0	0
Humpback whale	2	0	0
North Atlantic right whale	0	0	0
Sperm whale	2	0	0
Atlantic spotted dolphin	43	1	0
Beaked whales	0	0	0
Bottlenose dolphin	29	0	0
Clymene dolphin	33	0	0
Common dolphin	2,193	20	0
<i>Kogia</i> sp.	3	0	0
Pantropical spotted dolphin	70	1	0
Pilot whale	10	0	0
Risso's dolphin	16	0	0
Rough-toothed dolphin	1	0	0
Striped dolphin	68	3	0

Effects on Marine Mammal Habitat

NMFS' VACAPES Range Complex proposed rule included a section that addressed the effects of the Navy's activities on marine mammal habitat (73 FR 75631, page 75654). The Navy's proposed training exercises could potentially affect marine mammal habitat through underwater detonation and the introduction of explosive sound into the water column, and impacts to the prey species of marine mammals. These potential impacts are considered in the VACAPES FEIS and were determined by the Navy to have no effect on marine mammal habitat. Based on the information below and the supporting information included in the Navy's FEIS, NMFS has determined that the VACAPES Range Complex training activities will not have adverse or long-term impacts on marine mammal habitat.

Unless the sound source or explosive detonation is stationary and/or continuous over a long duration in one area, the effects of underwater detonation and its associated sound are generally considered to have a less severe impact on marine mammal habitat than the physical alteration of the habitat. Marine mammals may be temporarily displaced from areas where Navy training is occurring, but the area will be utilized again after the activities have ceased.

Effects on Food Resources

There are currently no well established thresholds for estimating effects to fish from explosives other than mortality models. Fish that are located in the water column, in proximity to the source of detonation could be injured, killed, or disturbed by the impulsive sound and possibly temporarily leave the area. Continental Shelf Inc. (2004) summarized a few studies conducted to determine effects associated with removal of offshore structures (e.g., oil rigs) in the Gulf of Mexico. Their findings revealed that at very close range, underwater explosions are lethal to most fish species regardless of size, shape, or internal anatomy. For most situations, cause of death in fishes has been massive organ and tissue damage and internal bleeding. At longer range, species with gas-filled swimbladders (e.g., snapper, cod, and striped bass) are more susceptible than those without swimbladders (e.g., flounders, eels).

Studies also suggest that larger fishes are generally less susceptible to death or injury than small fishes. Moreover, elongated forms that are round in cross section are less at risk than deep-bodied forms; and orientation of fish relative to

the shock wave may affect the extent of injury. Open water pelagic fish (e.g., mackerel) also seem to be less affected than reef fishes. The results of most studies are dependent upon specific biological, environmental, explosive, and data recording factors.

The huge variations in the fish population, including numbers, species, sizes, and orientation and range from the detonation point, make it very difficult to accurately predict mortalities at any specific site of detonation. However, most fish species experience a large number of natural mortalities, especially during early life-stages, and any small level of mortality caused by the VACAPES Range Complex training exercises involving explosives will likely be insignificant to the population as a whole.

Therefore, potential impacts to marine mammal food resources within the VACAPES Range Complex is negligible given both the very geographic and spatially limited scope of most Navy at sea activities including underwater detonations, and the high biological productivity of these resources. No short or long term effects to marine mammal food resources from Navy activities are anticipated within the VACAPES Range Complex. There is no critical habitat for marine mammals in the proposed VACAPES Range Complex Study Area.

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 planned detonation events the Navy would conduct for the proposed VACAPES Range Complex training activities. The events are generally short in duration, including a total of 115 1–1.5-hour events and 46 6–8-hour events. Taking the above into account, along with the fact that NMFS anticipates no mortalities (and few injuries) to result from the action, the fact that there are no specific areas of reproductive importance for marine mammals recognized within VACAPES, the sections discussed below, and dependent upon the implementation of the proposed mitigation measures, NMFS has determined that Navy training exercises utilizing underwater detonations will have a negligible impact on the affected marine mammal species and stocks present in the VACAPES Range Complex Study Area.

NMFS' analysis of potential behavioral harassment, temporary threshold shifts, permanent threshold shifts, injury, and mortality to marine mammals as a result of the VACAPES Range Complex training activities was provided in the proposed rule (73 FR 75631, pages 75636–75646) and is described in more detail below.

Behavioral Harassment

The Navy plans a total of 80 MISSILEX training events (each lasting for 1 hour), 22 FIREX training events (each lasting for 8 hours), 5 BOMBEX training events (each lasting for 1 hour), 30 MH–60S MINEX training events (each lasting for 1.5 hours), and 24 EOD MINEX training events (each lasting for 6–8 hours) annually. The total training exercises proposed by the Navy in the VACAPES Range Complex amount to under 500 hours per year. These detonation events are widely dispersed throughout several of the designated sites within the VACAPES Range Complex Study Area. The probability that detonation events will overlap in time and space with marine mammals is low, particularly given the densities of marine mammals in the VACAPES Range Complex Study Area and the implementation of monitoring and mitigation measures. Moreover, NMFS does not expect animals to experience repeat exposures to the same sound source as animals will likely move away from the source after being exposed. In addition, these isolated exposures,

when received at distances of Level B behavioral harassment (*i.e.*, 177 dB re 1 microPa²-sec), are expected to cause brief startle reactions or short-term behavioral modification by the animals. These brief reactions and behavioral changes are expected to disappear when the exposures cease. Therefore, these levels of received impulse noise from detonation are not expected to affect annual rates or recruitment or survival.

TTS

NMFS and the Navy have estimated that individuals of some species of marine mammals may sustain some level of temporarily threshold shift TTS from underwater detonations. 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 ½ 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). Since the impulse from detonation is extremely brief, an animal would have to approach very close to the detonation site to increase the received SEL. The threshold for the onset of TTS for detonations is a dual criteria: 182 dB re 1 microPa²-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 to receive the SEL that causes TTS compared to similar source level with longer durations (such as sonar signals).

- Duration of TTS (Recovery time)—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.

- Although the degree of TTS depends on the received noise levels and exposure time, all studies show that TTS is reversible and animals' sensitivity is expected to recover fully in minutes to hours. Therefore, NMFS expects that TTS would not affect annual rates of recruitment or survival.

Acoustic Masking or Communication Impairment

As discussed above, 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. Impulse sounds from underwater detonation are extremely brief and the majority of most animals' vocalizations would not be masked. Therefore, masking effects from underwater detonation are expected to be minimal and unlikely. If masking or communication impairment were to occur briefly, it would be in the frequency ranges below 100 Hz, which overlaps with some mysticete vocalizations; however, it would likely not mask the entirety of any particular vocalization or communication series because of the short impulse.

PTS, Injury, or Mortality

The Navy's model estimated that 1 Atlantic spotted dolphin, 20 common dolphins, 1 pantropical spotted dolphin, and 3 striped dolphins could experience 50% tympanic membrane rupture or slight lung injury (Level A harassment) as a result of the training activities utilizing underwater detonation in the VACAPES Range Complex Study Area. However, these estimates do not take into consideration the proposed mitigation and monitoring measures. For underwater detonations, the animals have to be within an area between certain injury zones of influence (ZOI) to experience Level A harassment. Such injury ZOI varies from 0.02 km² to 6.39 km² (or at distances between 80 m to 1,426 m from the center of detonation) depending on the types of munition used and the season of the action. Though it is possible that Navy observers could fail to detect an animal at a distance of more than 1 km (an injury ZOI during BOMEX, which is planned to have 5 events annually), all injury ZOIs from other detonation activities (FIREX, MISSILEX, and MINEX) are smaller than 0.165 km² (230 m in radius) and NMFS believes it is unlikely that any marine mammal could be detected by lookouts/watchstanders or MMOs. As discussed previously, the Navy plans to utilize aerial or vessel surveys to detect marine mammals for mitigation implementation and indicated that they are capable of effectively monitoring safety zones.

Based on these assessments, NMFS determined that approximately 2 humpback whales, 2 fin whales, 2

sperm whales, 3 dwarf or pygmy sperm whales, 1 rough-toothed dolphin, 29 bottlenose dolphins, 70 pantropical spotted dolphins, 68 striped dolphins, 33 Clymene dolphins, 43 Atlantic spotted dolphins, 2,193 common dolphins, 16 Risso's dolphins, and 10 pilot whales could be affected by Level B harassment (TTS and sub-TTS) as a result of the proposed VACAPES Range Complex training activities. These numbers represent approximately 0.24%, 0.09%, 0.04%, 0.76%, 0.04%, 1.58%, 0.07%, 0.08%, 1.82%, 0.08%, and 0.03% of humpback whales, fin whales, sperm whales, dwarf or pygmy sperm whales, bottlenose dolphins, pantropical spotted dolphins, striped dolphins, Clymene dolphins, Atlantic spotted dolphins, common dolphins, Risso's dolphins, and pilot whales, respectively in the vicinity of the proposed VACAPES Range Complex Study Area (calculation based on NMFS 2007 US Atlantic and Gulf of Mexico Marine Mammal Stock Assessment). Although the population estimates of Clymene dolphins and rough-toothed dolphins are unknown in the proposed action area, NMFS believes that the take of 33 individuals of Clymene dolphins and 1 individual of rough-toothed dolphin by Level B harassment would have a negligible impact to this species because most of their population exists beyond the project area and because they are widely distributed species in the North Atlantic (Jefferson *et al.*, 1993; Reeves *et al.*, 2002).

In addition, the Level A takes of 1 Atlantic spotted dolphin, 20 common dolphins, 1 pantropical spotted dolphin, and 3 striped dolphins represent 0.002%, 0.0166%, 0.0225%, and 0.0032% of these species, respectively, in the vicinity of the proposed VACAPES Range Complex 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.

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 VACAPES Range Complex

training activities will have a negligible impact on the marine mammal species and stocks present in the VACAPES Range Complex Study Area.

Subsistence Harvest of Marine Mammals

NMFS has determined that the issuance of 5-year regulations and subsequent LOAs (as warranted) for Navy training exercises in the VACAPES Range Complex would not have an unmitigable adverse impact on the availability of the affected species or stocks for subsistence use since there are no such uses in the specified area.

ESA

There are five marine mammal species, three sea turtle species, and a fish species that are listed as endangered under the ESA with confirmed or possible occurrence in the study area and could be impacted by the proposed action: Humpback whale, North Atlantic right whale, blue whale, fin whale, sperm whale, loggerhead sea turtle, leatherback sea turtle, the Kemp's ridley sea turtle, and the shortnose sturgeon.

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 concludes that the proposed training 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 VACAPES Range Complex. NMFS subsequently adopted the Navy's EIS 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 Navy VACAPES Range Complex training exercises utilizing 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 VACAPES Range Complex 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.

Pursuant to Executive Order 12866, the Office of Management and Budget has determined that this rule is not significant.

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 proposed rule includes the use of underwater detonations, which are only used by the U.S. military, during training 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 East Coast Operating Areas, i.e., the VACAPES Range Complex. As discussed below, suspension/interruption of the Navy's ability to train, for even a small number of days, disrupts vital sequential training 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 train. Timely training is critical because individual Navy units and Strike Groups/Amphibious Readiness Groups (ARG) currently operate in, or need to quickly deploy to high risk geographic areas. In addition, a Strike Group/ARG is built around an aircraft carrier with typically 5,300 personnel on board and an amphibious assault ship that carries a Marine Corps Expeditionary Unit, so failure to adequately train risks thousands of lives.

The training necessary to protect American interests and the lives of sailors and marines is complex. It involves ensuring the warfighter can accurately identify potential threats in a variety of marine environments and conditions, and it involves the coordination of different vessels and aircraft so that the group's capabilities are employed in the most tactically effective manner. As with any complicated coordinated effort, this challenge requires routine practice, as these skills are perishable.

In 10 U.S.C. 5062, Congress mandated that the Chief of Naval Operations (CNO) organize, train, and equip all Naval forces for combat. In response, the Fleet Response Training Plan (F RTP) is a major initiative designed to ensure Naval units receive required training before they deploy. The F RTP is an arduous sequential training cycle in which unit level training (ULT) and combat certification are followed by major exercises that bring together various warfare components so they have the opportunity to practice as an integrated whole and attain certification. Accordingly, any delay in coordinated training creates a significant and unreasonable risk which could result in a unit's and/or Strike Group's inability to train, certify and report as directed to an overseas theater of operations.

A deployment certification exercise is currently scheduled for June 2009 that will encompass areas of the VACAPES Range Complex. Lack of the appropriate environmental regulatory coverage for even a single day imperils completion of this exercise, and risks deployment certification. Essential ULT also occurs in these OPAREAs. There is limited unit level underway (at-sea) time available in the F RTP to adjust the training dates. These ULT training periods are driven by sequential certification processes for both inport and at-sea training.

Scheduling constraints are further complicated by the availability of Afloat Training Groups (ATGs) that are responsible for training all individual units. ATGs have a limited number of trainers available at any given time, and their schedules must also be de-conflicted, compounding the problem if training schedules are not adhered to. Waiver of the 30-day delay of the effective date of the Final Rule will allow Navy to finalize operational procedures to ensure compliance with required mitigation, monitoring, and reporting requirements, and have MMPA authorization in place prior to Navy's vital June 2009 exercise.

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: June 5, 2009.

Samuel D. Rauch III,

Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

■ For reasons set forth in the preamble, 50 CFR Chapter II is amended by adding part 218 to read as follows:

■ 1. Part 218 is added to read as follows:

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

Subpart A—Taking Marine Mammals Incidental to U.S. Navy Training in the Virginia Capes Range Complex (VACAPES Range Complex)

Sec.

- 218.1 Specified activity, specified geographical area and effective dates.
- 218.2 Permissible methods of taking.
- 218.3 Prohibitions.
- 218.4 Mitigation.
- 218.5 Requirements for monitoring and reporting.
- 218.6 Applications for Letters of Authorization.
- 218.7 Letters of Authorization.
- 218.8 Renewal of Letters of Authorization and adaptive management.
- 218.9 Modifications to Letters of Authorization.

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

Subpart A—Taking Marine Mammals Incidental to U.S. Navy Training in the Virginia Capes Range Complex (VACAPES Range Complex)

§ 218.1 Specified activity, 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 VACAPES Range Complex Operation Area (OPAREA), which is located in the coastal and offshore waters of the western North Atlantic Ocean adjacent to Delaware, Maryland, Virginia, and North Carolina. The northernmost boundary of the VACAPES Range Complex OPAREA is located 37 nautical miles (nm) off the entrance to Delaware Bay at latitude 38°45' N, the farthest point of the eastern boundary is 184 nm east of Chesapeake Bay at longitude 72°41' W, and the southernmost point is 105 nm southeast of Cape Hatteras, North Carolina, at latitude of 34°19' N. The western boundary of the VACAPES Range Complex OPAREA lies 3 nm from the shoreline at the boundary separating state and Federal waters.

(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 detonation of the underwater explosives indicated in paragraph (c)(1)(i) of this section conducted as part of the training events indicated in paragraph (c)(1)(ii) of this section:

- (i) Underwater Explosives:
 - (A) AGM-114 (Hellfire missile)
 - (B) AGM-65 E/F (Maverick missile)
 - (C) MK-83/GBU-32 (1,000 lb High Explosive bomb)
- (D) Airborne Mine Neutralization system (AMNS)
- (E) 20 lb NEW charges
- (F) AGM-88 (HARM)
- (G) 5" Naval Gunfire
- (ii) Training Events:
 - (A) Mine Exercise (MINEX) (Mine Neutralization [AMNS])—up to 150 exercises over the course of 5 years (an average of 30 per year);
 - (B) Mine Exercise (MINEX) (Mine Neutralization [20 lb NEW charges])—up to 120 exercises over the course of 5 years (an average of 24 per year);
 - (C) Bombing Exercise (BOMBEX) (Air-to-Surface)—up to 100 exercises over the course of 5 years (an average of 20 per year);
 - (D) Missile Exercise (MISSILEX) (Air-to-Surface; Hellfire missile)—up to 300 exercises over the course of 5 years (an average of 60 per year);
 - (E) Missile Exercise (MISSILEX) (Air-to-Surface; Maverick, HE)—up to 100 exercises over the course of 5 years (an average of 20 per year); and
 - (F) FIREX with IMPASS—up to 110 exercises over the course of 5 years (an average of 22 per year).

(2) [Reserved]

(d) Regulations are effective June 8, 2009 and are applicable to the Navy on June 5, 2009 through June 4, 2014.

§ 218.2 Permissible methods of taking.

(a) Under Letters of Authorization issued pursuant to § 216.106 of this chapter and § 218.7, the Holder of the Letter of Authorization may incidentally, but not intentionally, take marine mammals within the area described in § 218.1(b), provided the activity is in compliance with all terms, conditions, and requirements of this subpart and the appropriate Letter of Authorization.

(b) The activities identified in § 218.1(c) must be conducted in a manner that minimizes, to the greatest extent practicable, any adverse impacts on marine mammals and their habitat.

(c) The incidental take of marine mammals under the activities identified in § 218.1(c) is limited to the following species, by the indicated method of take and the indicated number of times:

(1) Level B Harassment:

(i) Mysticetes:

(A) Humpback whale (*Megaptera novaeangliae*)—10 (an average of 2 annually); and

(B) Fin whale (*Balaenoptera physalus*)—10 (an average of 2 annually).

(ii) Odontocetes:

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

(B) Pygmy or dwarf sperm whales (*Kogia* sp.)—15 (an average of 3 annually);

(C) Rough-toothed dolphin (*Steno bredanensis*)—5 (an average of 1 annually);

(D) Bottlenose dolphin (*Tursiops truncatus*)—145 (an average of 29 annually);

(E) Pantropical spotted dolphin (*Stenella attenuata*)—350 (an average of 70 annually);

(F) Striped dolphin (*S. coeruleoalba*)—340 (an average of 68 annually);

(G) Clymene dolphin (*S. clymene*)—165 (an average of 33 annually);

(H) Atlantic spotted dolphin (*S. frontalis*)—215 (an average of 43 annually);

(I) Common dolphin (*Delphinus delphis*)—10,965 (an average of 2,193 annually);

(J) Risso's dolphin (*Grampus griseus*)—80 (an average of 16 annually); and

(K) Pilot whales (*Globicephala* sp.)—50 (an average of 10 annually).

(2) Level A Harassment (injury):

(i) Atlantic spotted dolphin—5 (an average of 1 annually);

- (ii) Common dolphin—100 (an average of 20 annually);
- (iii) Pantropical spotted dolphin—5 (an average of 1 annually); and
- (iv) Striped dolphin—15 (an average of 3 annually).

§ 218.3 Prohibitions.

Notwithstanding takings contemplated in § 218.2 and authorized by a Letter of Authorization issued under § 216.106 of this chapter and § 218.7, no person in connection with the activities described in § 218.1 may:

- (a) Take any marine mammal not specified in § 218.2(c);
- (b) Take any marine mammal specified in § 218.2(c) other than by incidental take as specified in § 218.2(c)(1) and (2);
- (c) Take a marine mammal specified in § 218.2(c) if such taking results in more than a negligible impact on the species or stocks of such marine mammal; or
- (d) Violate, or fail to comply with, the terms, conditions, and requirements of this Subpart or a Letter of Authorization issued under § 216.106 of this chapter and § 218.7.

§ 218.4 Mitigation.

(a) When conducting training activities identified in § 218.1(c), the mitigation measures contained in the Letter of Authorization issued under § 216.106 of this chapter and § 218.7 must be implemented. These mitigation measures include, but are not limited to:

- (1) *General Maritime Measures:*
 - (i) Personnel Training—Lookouts
 - (A) All bridge personnel, Commanding Officers, Executive Officers, officers standing watch on the bridge, maritime patrol aircraft aircrews, and Mine Warfare (MIW) helicopter crews shall complete Marine Species Awareness Training (MSAT).
 - (B) Navy lookouts shall undertake extensive training to qualify as a watchstander in accordance with the Lookout Training Handbook (NAVEDTRA 12968–D).
 - (C) Lookout training shall include on-the-job instruction under the supervision of a qualified, experienced watchstander. Following successful completion of this supervised training period, lookouts shall complete the Personal Qualification Standard Program, certifying that they have demonstrated the necessary skills (such as detection and reporting of partially submerged objects).
 - (D) Lookouts shall be trained in the most effective means to ensure quick and effective communication within the command structure to facilitate implementation of protective measures if marine species are spotted.
 - (E) Surface lookouts shall scan the water from the ship to the horizon and be responsible for all contacts in their sector. In searching the assigned sector, the lookout shall always start at the forward part of the sector and search aft (toward the back). To search and scan, the lookout 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. The lookout shall scan for approximately five seconds in as many small steps as possible across the field seen through the binoculars. They shall search the entire sector in approximately five-degree steps, pausing between steps for approximately five seconds to scan the field of view. At the end of the sector search, the glasses shall be lowered to allow the eyes to rest for a few seconds, and then the lookout shall search back across the sector with the naked eye.
 - (F) At night, lookouts 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, they 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. Lookouts shall also have night vision devices available for use.
 - (ii) Operating Procedures and Collision Avoidance:
 - (A) Prior to major exercises, a Letter of Instruction, Mitigation Measures Message or Environmental Annex to the Operational Order shall be issued to further disseminate the personnel training requirement and general marine species mitigation measures.
 - (B) Commanding Officers shall make use of marine species detection cues and information to limit interaction with marine species to the maximum extent possible consistent with safety of the ship.
 - (C) While underway, surface vessels shall have at least two lookouts with binoculars; surfaced submarines shall have at least one lookout with binoculars. Lookouts already posted for safety of navigation and man-overboard precautions may be used to fill this requirement. As part of their regular duties, lookouts shall watch for and report to the OOD the presence of marine mammals.
 - (D) Personnel on lookout shall employ visual search procedures employing a scanning method in accordance with the Lookout Training Handbook (NAVEDTRA 12968–D).
 - (E) After sunset and prior to sunrise, lookouts shall employ Night Lookouts Techniques in accordance with the

Lookout Training Handbook (NAVEDTRA 12968–D).

(F) While in transit, naval vessels shall be alert at all times, use extreme caution, and proceed at a “safe speed” so that the vessel can take proper and effective action to avoid a collision with any marine animal and can be stopped within a distance appropriate to the prevailing circumstances and conditions.

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

(H) Naval vessels shall maneuver to keep at least 500 yds (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 vessels in the vicinity of the whale.

(I) Where feasible and consistent with mission and safety, vessels shall avoid closing to within 200-yd (183 m) of marine mammals other than whales (whales addressed above).

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

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

(2) Coordination and Reporting Requirements. (i) The Navy shall coordinate with the local NMFS Stranding Coordinator for any unusual marine mammal behavior and any stranding, beached live/dead, or floating

marine mammals that may occur at any time during or within 24 hours after completion of training activities.

(ii) The Navy shall follow internal chain of command reporting procedures as promulgated through Navy instructions and orders.

(3) Mitigation Measures Applicable to Vessel Transit in the Mid-Atlantic during North Atlantic Right Whale Migration: The mitigation measures apply to all Navy vessel transits, including those vessels that would transit to and from East Coast ports and the VACAPES Range Complex.

(i) Mid-Atlantic, Offshore of the Eastern United States:

(A) All Navy vessels are required to use extreme caution and operate at a slow, safe speed consistent with mission and safety (at a speed that does not compromise safety of navigation) during the months indicated below and within a 37 km (20 nm) arc (except as noted) of the specified associated reference points:

(1) South and East of Block Island (37 km (20 NM) seaward of line between 41–4.49° N. lat. 071–51.15° W. long. and 41–18.58° N. lat. 070–50.23° W. long.): Sept–Oct and Mar–Apr

(2) New York/New Jersey (40–30.64° N. lat. 073–57.76° W. long.): Sep–Oct and Feb–Apr.

(3) Delaware Bay (Philadelphia) (38–52.13° N. lat. 075–1.93° W. long.): Oct–Dec and Feb–Mar.

(4) Chesapeake Bay (Hampton Roads and Baltimore) (37–1.11° N. lat. 075–57.56° W. long.): Nov–Dec and Feb–Apr.

(5) North Carolina (34–41.54° N. lat. 076–40.20° W. long.): Dec–Apr.

(6) South Carolina (33–11.84° N. lat. 079–8.99° W. long. and 32–43.39° N. lat. 079–48.72° W. long.): Oct–Apr.

(B) During the months indicated in paragraph (a)(3)(i)(A) of this section, Navy vessels shall practice increased vigilance with respect to avoidance of vessel-whale interactions along the mid-Atlantic coast, including transits to and from any mid-Atlantic ports not specifically identified in paragraph (a)(3)(i)(A) of this section.

(C) All surface units transiting within 56 km (30 NM) of the coast in the mid-Atlantic shall ensure at least two watchstanders are posted, including at least one lookout who has completed required MSAT training.

(D) Navy vessels shall not knowingly approach any whale head on and shall maneuver to keep at least 457 m (1,500 ft) away from any observed whale, consistent with vessel safety.

(ii) Southeast Atlantic, Offshore of the Eastern United States—for the purposes of the measures below (paragraphs (a)(3)(ii)(A) & (B) of this section), the

“southeast” encompasses sea space from Charleston, South Carolina, southward to Sebastian Inlet, Florida, and from the coast seaward to 148 km (80 NM) from shore. North Atlantic right whale critical habitat is the area from 31–15° N. lat. to 30–15° N. lat. extending from the coast out to 28 km (15 NM), and the area from 28–00° N. lat. to 30–15° N. lat. from the coast out to 9 km (5 NM). All mitigation measures described here that apply to the critical habitat apply from November 15–April 15 and also apply to an associated area of concern which extends 9 km (5 NM) seaward of the designated critical habitat boundaries.

(A) Prior to transiting or training in the critical habitat or associated area of concern, ships shall contact Fleet Area Control and Surveillance Facility, Jacksonville, to obtain latest whale sighting and other information needed to make informed decisions regarding safe speed (the minimum speed at which mission goals or safety will not be compromised) and path of intended movement. Subs shall contact Commander, Submarine Group Ten for similar information.

(B) The following specific mitigation measures apply to activities occurring within the North Atlantic right whale critical habitat and an associated area of concern which extends 9 km (5 NM) seaward of the designated critical habitat boundaries:

(1) When transiting within the critical habitat or associated area of concern, vessels shall exercise extreme caution and proceed at a slow safe speed. The speed shall be the slowest safe speed that is consistent with mission, training and operations.

(2) Speed reductions (adjustments) are required when a whale is sighted by a vessel or when the vessel is within 9 km (5 NM) of a reported new sighting less than 12 hours old. Circumstances could arise where, in order to avoid North Atlantic right whale(s), speed reductions could mean vessels must reduce speed to a minimum at which it can safely keep on course or vessels could come to an all stop.

(3) Vessels shall avoid head-on approaches to North Atlantic right whale(s) and shall maneuver to maintain at least 457 m (500 yd) of separation from any observed whale if deemed safe to do so. These requirements do not apply if a vessel's safety is threatened, such as when a change of course would create an imminent and serious threat to a person, vessel, or aircraft, and to the extent vessels are restricted in the ability to maneuver.

(4) During the North Atlantic right whale calving season, north-south transits through the critical habitat are prohibited.

(5) Ships, surfaced subs, and aircraft shall report any whale sightings to Fleet Area Control and Surveillance Facility, Jacksonville, by the quickest and most practicable means. The sighting report shall include the time, latitude/longitude, direction of movement and number and description of whale (*i.e.*, adult/calf).

(iii) Northeast Atlantic, Offshore of the Eastern United States:

(A) Prior to transiting the Great South Channel or Cape Cod Bay critical habitat areas, ships shall obtain the latest North Atlantic right whale sightings and other information needed to make informed decisions regarding safe speed (the minimum speed at which mission goals or safety will not be compromised). The Great South Channel critical habitat is defined by the following coordinates: 41–00° N. lat., 69–05° W. long.; 41–45° N. lat., 69–45° W. long.; 42–10° N. lat., 68–31° W. long.; 41–38° N. lat., 68–13° W. long. The Cape Cod Bay critical habitat is defined by the following coordinates: 42–04.8° N. lat., 70–10° W. long.; 42–12° N. lat., 70–15° W. long.; 42–12° N. lat., 70–30° W. long.; 41–46.8° N. lat., 70–30° W. long.

(B) Ships, surfaced subs, and aircraft shall report any North Atlantic right whale sightings (if the whale is identifiable as a right whale) off the northeastern U.S. to Patrol and Reconnaissance Wing (COMPATRECONWING). The report shall include the time of sighting, lat/long, direction of movement (if apparent) and number and description of the whale(s).

(C) Vessels or aircraft that observe whale carcasses shall record the location and time of the sighting and report this information as soon as possible to the cognizant regional environmental coordinator. All whale strikes must be reported. This report shall include the date, time, and location of the strike; vessel course and speed; operations being conducted by the vessel; weather conditions, visibility, and sea state; description of the whale; narrative of incident; and indication of whether photos/videos were taken. Navy personnel are encouraged to take photos whenever possible.

(D) Specific mitigation measures related to activities occurring within the critical habitat include the following:

(1) Vessels shall avoid head-on approaches to North Atlantic right whale(s) and shall maneuver to maintain at least 457 m (500 yd) of

separation from any observed whale if deemed safe to do so. These requirements do not apply if a vessel's safety is threatened, such as when change of course would create an imminent and serious threat to person, vessel, or aircraft, and to the extent vessels are restricted in the ability to maneuver.

(2) When transiting within the critical habitat or associated area of concern, vessels shall use extreme caution and operate at a safe speed (the minimum speed at which mission goals or safety will not be compromised) so as to be able to avoid collisions with North Atlantic right whales and other marine mammals, and stop within a distance appropriate to the circumstances and conditions.

(3) Speed reductions (adjustments) are required when a whale is sighted by a vessel or when the vessel is within 9 km (5 NM) of a reported new sighting less than one week old.

(4) Ships transiting in the Cape Cod Bay and Great South Channel critical habitats shall obtain information on recent whale sightings in the vicinity of the critical habitat. Any vessel operating in the vicinity of a North Atlantic right whale shall consider additional speed reductions per Rule 6 of International Navigational Rules.

(4) Mitigation Measures for Specific At-sea Training Events—If a marine mammal is killed as a result of the proposed Navy training activities (e.g., instances in which it is clear that munitions explosions caused the death), the Navy shall suspend its activities immediately and report the incident to NMFS.

(i) Firing Exercise (FIREX) Using the Integrated Maritime Portable Acoustic Scoring System (IMPASS) (5-in. Explosive Rounds):

(A) FIREX using IMPASS would only be conducted in the four designated areas specified in the Navy's LOA application in the VACAPES Range Complex.

(B) Pre-exercise monitoring of the target area shall be conducted with "Big Eyes" prior to the event, during deployment of the IMPASS sonobuoy array, and during return to the firing position. Ships shall be required to maintain a lookout dedicated to visually searching for marine mammals 180° along the ship track line and 360° at each buoy drop-off location.

(C) "Big Eyes" on the ship shall be used to monitor a 600 yd (548 m) buffer zone around the target area for marine mammals during naval-gunfire events.

(D) Ships shall not fire on the target if any marine mammals are detected within or approaching the 600 yd (548

m) buffer zone until the area is cleared. If marine mammals are present, operations shall be suspended. Visual observation shall occur for approximately 45 minutes, or until the animal has been observed to have cleared the area and is heading away from the buffer zone.

(E) Post-exercise monitoring of the entire target area shall take place with "Big Eyes" and the naked eye during the retrieval of the IMPASS sonobuoy array following each firing exercise.

(F) FIREX with IMPASS shall take place during daylight hours only.

(G) FIREX with IMPASS shall only be used in Beaufort Sea State three (3) or less.

(H) The visibility must be such that the fall of shot is visible from the firing ship during the exercise.

(I) No firing shall occur if marine mammals are detected within 70 yd (64 m) of the vessel.

(ii) Air-to-Surface At-Sea Bombing Exercises (250-lbs to 2,000-lbs explosive bombs):

(A) Aircraft shall visually survey the target and buffer zone for marine mammals prior to and during the exercise. The survey of the impact area shall be made by flying at 1,500 ft (457 m) altitude or lower, if safe to do so, and at the slowest safe speed.

(B) A buffer zone of 5,100-yd (4,663 m) radius shall be established around the intended target zone. The exercises shall be conducted only when marine mammals are observed to be outside the buffer zone.

(C) At-sea BOMBEXs using live ordnance shall occur during daylight hours only.

(iii) Air-to-Surface Missile Exercises (Explosive):

(A) Aircraft shall initially survey the intended ordnance impact area for marine mammals.

(B) During the actual firing of the weapon, the aircraft involved must be able to observe the intended ordnance impact area to ensure the area is free of marine mammal transiting the range.

(C) Visual inspection of the target area shall be made by flying at 1,500 ft (457 m) altitude or lower, if safe to do so, and at slowest safe speed.

(D) Explosive ordnance shall not be targeted to impact within 1,800 yd (1,646 m) of sighted marine mammals.

(iv) Mine Neutralization Training Involving Underwater Detonations (up to 20-lb charges):

(A) This activity shall only occur in W-50 of the VACAPES Range Complex.

(B) Observers shall survey the Zone of Influence (ZOI), a 700 yd (640 m) radius from detonation location for marine mammals from all participating vessels

during the entire operation. A survey of the ZOI (minimum of 3 parallel tracklines 219 yd [200 m] apart) using support craft shall be conducted at the detonation location 30 minutes prior through 30 minutes post detonation. Aerial survey support shall be utilized whenever assets are available.

(C) Detonation operations shall be conducted during daylight hours only.

(D) If a marine mammal is sighted within the ZOI, the animal shall be allowed to leave of its own volition. The Navy shall suspend detonation exercises and ensure the area is clear of marine mammals for a full 30 minutes prior to detonation.

(E) Divers placing the charges on mines and dive support vessel personnel shall survey the area for marine mammals and shall report any sightings to the surface observers. These animals shall be allowed to leave of their own volition and the ZOI shall be clear of marine mammals for 30 minutes prior to detonation.

(F) No detonations shall take place within 3.2 nm (6 km) of an estuarine inlet (Chesapeake Bay Inlets).

(G) No detonations shall take place within 1.6 nm (3 km) of shoreline.

(H) Personnel shall record any protected species observations during the exercise as well as measures taken if species are detected within the ZOI.

(b) [Reserved]

§ 218.5 Requirements for monitoring and reporting.

(a) The Holder of the Letter of Authorization issued pursuant to § 216.106 of this chapter and § 218.7 for activities described in § 218.1(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 § 218.1(c) is thought to have resulted in the mortality or serious injury of any marine mammals, or in any take of marine mammals not identified in § 218.2(c).

(c) The Navy must conduct all monitoring and required reporting under the Letter of Authorization, including abiding by the VACAPES Range 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) *Vessel or aerial surveys.* (i) The Holder of this Authorization shall visually survey a minimum of 2 explosive events per year, one of which shall be a multiple detonation event.

One of the vessel or aerial surveys should involve professionally trained marine mammal observers (MMOs).

(ii) Where operationally feasible, for specified training events, aerial or vessel surveys shall be used 1–2 days prior to, during (if reasonably safe), and 1–5 days post detonation.

(iii) Surveys shall include any specified exclusion zone around a particular detonation point plus 2,000 yards beyond the border of the exclusion zone (*i.e.*, the circumference of the area from the border of the exclusion zone extending 2,000 yards outwards). For vessel based surveys a passive acoustic system (hydrophone or towed array) could be used to determine if marine mammals are in the area before and/or after a detonation event.

(iv) When conducting a particular survey, the survey team shall collect:

(A) Location of sighting;
(B) Species (if not possible, indicate whale, dolphin or pinniped);
(C) Number of individuals;
(D) Whether calves were observed;
(E) Initial detection sensor;
(F) Length of time observers maintained visual contact with marine mammal;

(G) Wave height;

(H) Visibility;

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

(J) Distance of marine mammal from actual detonations (or target spot if not yet detonated);

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

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

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

(2) Passive acoustic monitoring—the Navy shall conduct passive acoustic monitoring when operationally feasible.

(i) Any time a towed hydrophone array is employed during shipboard surveys the towed array shall be deployed during daylight hours for each of the days the ship is at sea.

(ii) The towed hydrophone array shall be used to supplement the ship-based systematic line-transect surveys

(particularly for species such as beaked whales that are rarely seen).

(iii) The array shall have the capability of detecting low frequency vocalizations (<1,000 Hz) for baleen whales and relatively high frequency (up to 30 kHz) for odontocetes. The use of two simultaneously deployed arrays can also allow more accurate localization and determination of diving patterns.

(3) Marine mammal observers on Navy platforms. (i) As required in § 218.5(c)(1), MMOs selected for aerial or vessel survey shall be placed on a Navy platform during one of the explosive exercises being monitored per year, the other designated exercise shall be monitored by the Navy lookouts/watchstanders.

(ii) The MMO must possess expertise in species identification of regional marine mammal species and experience collecting behavioral data.

(iii) MMOs shall not be placed aboard Navy platforms for every Navy training event or major exercise, but during specifically identified opportunities deemed appropriate for data collection efforts. The events selected for MMO participation shall take into account safety, logistics, and operational concerns.

(iv) MMOs shall observe from the same height above water as the lookouts.

(v) The MMOs shall not be part of the Navy's formal reporting chain of command during their data collection efforts; Navy lookouts shall continue to serve as the primary reporting means within the Navy chain of command for marine mammal sightings. The only exception is that if an animal is observed within the shutdown zone that has not been observed by the lookout, the MMO shall inform the lookout of the sighting and the lookout shall take the appropriate action through the chain of command.

(vi) The MMOs shall collect species identification, behavior, direction of travel relative to the Navy platform, and distance first observed. Information collected by MMOs be the same as those collected by Navy lookout/watchstanders described in § 218.5(c)(1)(iv).

(d) The Navy shall complete an Integrated Comprehensive Monitoring Program (ICMP) Plan in 2009. This planning and adaptive management tool shall include:

(1) A method for prioritizing monitoring projects that clearly describes the characteristics of a proposal that factor into its priority.

(2) A method for annually reviewing, with NMFS, monitoring results, Navy

R&D, and current science to use for potential modification of mitigation or monitoring methods.

(3) A detailed description of the Monitoring Workshop to be convened in 2011 and how and when Navy/NMFS will subsequently utilize the findings of the Monitoring Workshop to potentially modify subsequent monitoring and mitigation.

(4) An adaptive management plan.

(5) A method for standardizing data collection for VACAPES Range Complex and across range complexes.

(e) 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 training exercise 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).

(f) Annual VACAPES Range Complex Monitoring Plan Report—The Navy shall submit a report annually on March 1 describing the implementation and results (through January 1 of the same year) of the VACAPES Range Complex Monitoring Plan. Data collection methods shall be standardized across range complexes to allow for comparison in different geographic locations. Although additional information will also be gathered, the MMOs collecting marine mammal data pursuant to the VACAPES Range Complex Monitoring Plan shall, at a minimum, provide the same marine mammal observation data required in the data required in § 218.5(g). The VACAPES Range Complex Monitoring Plan Report may be provided to NMFS within a larger report that includes the required Monitoring Plan Reports from VACAPES Range Complex and multiple range complexes.

(g) Annual VACAPES Range Complex Exercise Report—The Navy shall provide the information described below for all of their explosive exercises. Until the Navy is able to report in full the information below, they shall provide an annual update on the Navy's explosive tracking methods, including improvements from the previous year.

(1) Total annual number of each type of explosive exercise (of those identified as part of the "specified activity" in this

final rule) conducted in the VACAPES Range Complex.

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

(h) VACAPES Range Complex 5-yr Comprehensive Report—The Navy shall submit to NMFS a draft report that analyzes and summarizes all of the multi-year marine mammal information gathered during the VACAPES Range Complex exercises for which annual reports are required (Annual VACAPES Range Complex Exercise Reports and VACAPES Range Complex Monitoring Plan Reports). This report shall be submitted at the end of the fourth year of the rule (May 2013), covering activities that have occurred through December 1, 2012.

(i) The Navy shall respond to NMFS' comments and requests for additional information or clarification on the VACAPES Range Complex Comprehensive Report, the Annual VACAPES Range Complex Exercise Report, or the Annual VACAPES Range Complex Monitoring Plan Report (or the multi-Range Complex Annual Monitoring Plan Report, if that is how the Navy chooses to submit the information) if submitted within 3 months of receipt. These reports shall 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.

(j) 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.

§218.6 Applications for Letters of Authorization.

To incidentally take marine mammals pursuant to these regulations in this subpart, the U.S. citizen (as defined by § 216.103) conducting the activity identified in § 218.1(c) (the U.S. Navy) must apply for and obtain either an initial Letter of Authorization in accordance with § 218.7 or a renewal under § 218.8.

§218.7 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 § 218.8.

(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).

§218.8 Renewal of Letters of Authorization and adaptive management.

(a) A Letter of Authorization issued under § 216.106 of this chapter and § 218.7 for the activity identified in § 218.1(c) will be renewed annually upon:

(1) Notification to NMFS that the activity described in the application submitted under § 218.6 will be undertaken and that there will not be a substantial modification to the described work, mitigation or monitoring undertaken during the upcoming 12 months;

(2) Timely receipt of the monitoring reports required under § 218.5(c) through (i); and

(3) A determination by NMFS that the mitigation, monitoring and reporting measures required under § 218.4 and the Letter of Authorization issued under § 216.106 of this chapter and § 218.7, 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 § 218.8 indicates that a substantial modification to the described work, mitigation or monitoring undertaken during the upcoming season will occur, 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 VACAPES Range Complex or other locations).

(2) Findings of the Monitoring Workshop that the Navy will convene in 2011 (§ 218.5(j)).

(3) Compiled results of Navy funded research and development (R&D) studies (presented pursuant to the ICMP (§ 218.5(d))).

(4) Results from specific stranding investigations (either from the VACAPE Range Complex Study Area or other locations, and involving coincident explosives training or not involving coincident use).

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

§218.9 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 § 218.7 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 § 218.8, 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 § 218.2(c), a Letter of Authorization issued pursuant to § 216.106 of this chapter and § 218.7 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 218

RIN 0648-AW79

Taking and Importing Marine Mammals; U.S. Navy Training in the Jacksonville Range Complex

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

ACTION: Final rule.

SUMMARY: NMFS, upon application from the U.S. Navy (Navy), is issuing regulations to govern the unintentional taking of marine mammals incidental to activities conducted off the Charleston/Jacksonville (JAX) Range Complex for the period of June 2009 through June 2014. 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 June 8, 2009 and is applicable to the Navy on June 5, 2009 through June 4, 2014.

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

FOR FURTHER INFORMATION CONTACT: 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 Wednesday, December 17, 2008 (73 FR 76578). 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 and of no more than 1 year, the Secretary shall issue a notice of proposed authorization for public 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 March 17, 2008, NMFS received an application from the Navy requesting authorization for the take of six species of cetaceans incidental to the proposed training activities in the JAX Range Complex over the course of 5 years. On November 7, 2008, the Navy submitted an Addendum with some modifications and additional information to its original request. These training activities are classified as military readiness activities. The Navy states that these training activities may cause various impacts to marine mammal species in the proposed JAX Range Complex area. The Navy requests an authorization to take individuals of these cetacean species by Level B Harassment. Further, the Navy requests authorization to take 2 individual Atlantic spotted dolphins per year by injury incidental to the proposed training activities in the JAX Range Complex. Please refer to Table 5 of this document for detailed information of the potential exposures from explosive ordnance (per year) for marine mammals in the JAX Range Complex. However, due to the proposed mitigation and monitoring measures, NMFS does not expect the proposed action would result in any marine mammal mortality. Therefore, no mortality would be authorized for the Navy's JAX Range Complex training 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 (73 FR 76578; December 17, 2008).

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 number of the training activities. These training activities consist of surface warfare [Missile Exercise (MISSILEX)], mine warfare [Mine Exercises (MINEX)], amphibious warfare [Firing Exercise