

ADDENDUM TO VACAPES LOA (NOV 2008)

ADDENDUM
TO
REQUEST FOR LETTER OF AUTHORIZATION
UNDER SECTION 101(A)(5)(A) OF THE MARINE MAMMAL PROTECTION ACT
FOR THE INCIDENTAL HARASSMENT OF MARINE MAMMALS RESULTING
FROM NAVY TRAINING OPERATIONS CONDUCTED WITHIN THE
VACAPES RANGE COMPLEX
NOVEMBER 2008

Section 1.3 Amphibious Warfare

The table on page 1-4 is revised by replacing “868” HE rounds with “858” HE rounds.

Section 3.2 Estimated Marine Mammal Densities

Section 3.2 is revised by moving the bulleted list of “Species for Which Density Estimates Are Not Available” on page 3-3 to the end of the section and adding the following text prior to the bulleted list:

Density estimates could not be calculated for all species due to the limited available data for these species. Occurrence of these species in the Jacksonville Range Complex is considered rare.

Section 6.3.5 Summary of Potential Exposures from Explosive Ordnance Use

The second paragraph in section 6.3.5 is revised as follows:

An explosive analysis was conducted to estimate the number of marine mammals that could be exposed to impacts from explosions. **Table 29** provides a summary of the explosive analysis results. Exposure estimates could not be calculated for several species (blue whale, sei whale, Bryde’s whale, killer whale, pygmy killer whale, false killer whale, melon-headed whale, spinner dolphin, Fraser’s dolphin, Atlantic white-sided dolphin, and harbor porpoise) because density data could not be calculated due to the limited available data for these species; however, the likelihood of exposure for species not expected to occur in the JAX Range Complex should be even lower than that estimated for other the species with given densities since they are less likely to occur in the Study Area occurrence frequent enough for densities to be calculated. In addition to the low likelihood of exposure, the mitigation measures presented in Chapter 11 will be implemented. Lookouts will monitor the area before ordnance is used. Since the blue whale, sei whale, Bryde’s whale, killer whale, pygmy killer whale, false killer whale, melon-headed whale, spinner dolphin, Fraser’s dolphin, Atlantic white-sided dolphin, and harbour porpoise are considered rare in the Jacksonville Range Complex, no exposures are expected for these species. Fin, humpback whales, and sperm whales will have high detections rates at the surface because of their large body size and pronounced blows.

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Because of large group sizes, it is likely that lookouts would detect Atlantic spotted dolphins, bottlenose dolphins, Clymene, common, pantropical spotted dolphins, Risso's dolphins, rough-toothed dolphin, and striped dolphins. Implementation of mitigation measures will reduce the likelihood of exposure and potential effects.

Table 23 is revised by replacing "5.75" in the BOMBEX Air-K row each place it occurs with "1.25".

Chapter 11

Sections 11.1 through 11.4 are replaced with the following:

11.1 Standard Operating Procedures (General Maritime Measures)

The mitigation measures presented below are taken by Navy personnel on a regular and routine basis. These are routine measures and are considered "Standard Operating Procedures."

11.1.1 Personnel Training – Lookouts

The use of shipboard lookouts is a critical component of all Navy standard operating procedures. Navy shipboard lookouts (also referred to as "watchstanders") are highly qualified and experienced observers of the marine environment. Their duties require that they report all objects sighted in the water to the Officer of the Deck (OOD) (e.g., trash, a periscope, marine mammals, sea turtles) and all disturbances (e.g., surface disturbance, discoloration) that may be indicative of a threat to the vessel and its crew. There are personnel serving as lookouts on station at all times (day and night) when a ship or surfaced submarine is moving through the water.

For the past few years, the Navy has implemented marine mammal spotter training for its bridge lookout personnel on ships and submarines. This training has been revamped and updated as the Marine Species Awareness Training (MSAT) and is provided to all applicable units. The lookout training program incorporates MSAT, which addresses the lookout's role in environmental protection, laws governing the protection of marine species, Navy stewardship commitments, and general observation information, including more detailed information for spotting marine mammals. MSAT has been reviewed by NMFS and acknowledged as suitable training. MSAT may also be viewed on-line at <https://portal.navy.mil/go/msat>

1. All bridge personnel, Commanding Officers, Executive Officers, officers standing watch on the bridge, maritime patrol aircraft aircrews, and Mine Warfare (MIW) helicopter crews will complete MSAT.
2. Navy lookouts will undertake extensive training to qualify as a watchstander in accordance with the Lookout Training Handbook (NAVEDTRA 12968-D).
3. Lookout training will include on-the-job instruction under the supervision of a qualified, experienced watchstander. Following successful completion of this supervised training period, lookouts will complete the Personal Qualification Standard Program, certifying that they have demonstrated the necessary skills (such as detection and reporting of partially submerged objects).

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4. Lookouts will 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.
5. Surface lookouts would 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 would always start at the forward part of the sector and search aft (toward the back). To search and scan, the lookout would 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 would scan for approximately five seconds in as many small steps as possible across the field seen through the binoculars. They would 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 would be lowered to allow the eyes to rest for a few seconds, and then the lookout would search back across the sector with the naked eye.
6. At night, lookouts would not sweep the horizon with their eyes, because eyes do not see well when they are moving. 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.

11.1.2 Operating Procedures & Collision Avoidance

1. Prior to major exercises, a Letter of Instruction, Mitigation Measures Message or Environmental Annex to the Operational Order will be issued to further disseminate the personnel training requirement and general marine species mitigation measures.
2. Commanding Officers will 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.
3. While underway, surface vessels will have at least two lookouts with binoculars; surfaced submarines will have at least one lookout with binoculars. Lookouts already posted for safety of navigation and man-overboard precautions may be used to fill this requirement. As part of their regular duties, lookouts will watch for and report to the OOD the presence of marine mammals and sea turtles.
4. On surface vessels equipped with a mid-frequency active sonar, pedestal mounted "Big Eye" (20x110) binoculars will be properly installed and in good working order to assist in the detection of marine mammals and sea turtles in the vicinity of the vessel.
5. Personnel on lookout will employ visual search procedures employing a scanning method in accordance with the Lookout Training Handbook (NAVEDTRA 12968-D).
6. After sunset and prior to sunrise, lookouts will employ Night Lookouts Techniques in accordance with the Lookout Training Handbook (NAVEDTRA 12968-D).
7. While in transit, naval vessels will 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.

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8. When whales have been sighted in the area, Navy vessels will increase vigilance and take reasonable and practicable actions to avoid collisions and activities that might result in close interaction of naval assets and marine mammals. Actions may include changing speed and/or direction and are dictated by environmental and other conditions (*e.g.*, safety, weather).
9. Naval vessels will 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. Restricted maneuverability includes, but is not limited to, situations when vessels are engaged in dredging, submerged operations, launching and recovering aircraft or landing craft, minesweeping operations, replenishment while underway and towing operations that severely restrict a vessel's ability to deviate course. Vessels will take reasonable steps to alert other vessels in the vicinity of the whale.
10. Where feasible and consistent with mission and safety, vessels will avoid closing to within 200-yd (183 m) of sea turtles and marine mammals other than whales (whales addressed above).
11. Floating weeds, algal mats, Sargassum rafts, clusters of seabirds, and jellyfish are good indicators of sea turtles and marine mammals. Therefore, increased vigilance in watching for sea turtles and marine mammals will be taken where these are present.
12. Navy aircraft participating in exercises at sea will 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 will 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.
13. All vessels will maintain logs and records documenting training operations should they be required for event reconstruction purposes. Logs and records will be kept for a period of 30 days following completion of a major training exercise.

11.2 Coordination and Reporting Requirements

The Navy will 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. Additionally, the Navy will follow internal chain of command reporting procedures as promulgated through Navy instructions and orders.

11.3 Mitigation Measures Applicable to Vessel Transit in the Mid-Atlantic during North Atlantic Right Whale Migration

For purposes of these measures, the mid-Atlantic is defined broadly to include ports south and east of Block Island Sound southward to South Carolina. The procedure described below would be established as mitigation measures for Navy vessel transits during Atlantic right whale

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migratory seasons near ports located off the western North Atlantic, offshore of the eastern United States. The mitigation measures would apply to all Navy vessel transits, including those vessels that would transit to and from East Coast ports and OPAREAs. Seasonal migration of right whales is generally described by NMFS as occurring from October 15th through April 30th, when right whales migrate between feeding grounds farther north and calving grounds farther south. The Navy mitigation measures have been established in accordance with rolling dates identified by NMFS consistent with these seasonal patterns.

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. The 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 indicated in Table 30 below and within a 20 nm (37 km) arc (except as noted) of the specified reference points.

During the indicated months, Navy vessels would 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 above.

**TABLE 30
NORTH ATLANTIC RIGHT WHALE MIGRATION PORT REFERENCES**

Region	Months	Port Reference Points
South and East of Block Island	Sep–Oct and Mar–Apr	37 km (20 NM) seaward of line between 41-4.49N 071-51.15W and 41-18.58N 070-50.23W
New York / New Jersey	Sep–Oct and Feb–Apr	40-30.64N 073-57.76W
Delaware Bay (Philadelphia)	Oct–Dec and Feb–Mar	38-52.13N 075-1.93W
Chesapeake Bay (Hampton Roads and Baltimore)	Nov–Dec and Feb–Apr	37-1.11N 075-57.56W
North Carolina	Dec–Apr	34-41.54N 076-40.20W
South Carolina	Oct–Apr	33-11.84N 079-8.99W 32-43.39N 079-48.72W

11.4 Mitigation Measures for specific At-Sea training events

These actions are standard operating procedures that are in place currently and will be used in the future for all activities being analyzed in this LOA request.

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11.4.1 Firing Exercise (FIREX) Using the Integrated Maritime Portable Acoustic Scoring System (IMPASS) (5-inch explosive rounds)

Historically FIREX using IMPASS occurs in two areas in the VACAPES Study Area: the adjacent Areas of 1C1/2, 7C/D & 8C/D, and a separate area to the southeast, Area 5C/D. The locations were established to be far enough from shore to reduce civilian encounters (e.g., diving and recreational fishing), while remaining a reasonable day's distance from the homeport of Norfolk, Virginia of participating ships. Surface ships conducting FIREX with IMPASS do not have strict distance from land restrictions like aircraft that embark from shore-based facilities.

1. FIREX using IMPASS will only be conducted in Areas 1C1/2, 7C/D, 8C/D and 5C/D.
2. Pre-exercise monitoring of the target area will be conducted with "Big Eyes" prior to the event, during deployment of the IMPASS sonobuoy array, and during return to the firing position. Ships will maintain a lookout dedicated to visually searching for marine mammals and sea turtles 180° along the ship track line and 360° at each buoy drop-off location.
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/sea turtles 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 any marine mammals or sea turtles are detected within or approaching the 600 yd (548 m) until the area is cleared. If marine mammals or sea turtles 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.
5. Post-exercise monitoring of the entire effect range will take place with "Big Eyes" and the naked eye during the retrieval of the IMPASS sonobuoy array following each firing exercise.
6. FIREX with IMPASS will take place during daylight hours only.
7. FIREX with IMPASS will only be used in Beaufort Sea State three (3)¹ or less.
8. The visibility must be such that the fall of shot is visible from the firing ship during the exercise.
9. No firing will occur if marine mammals are detected within 70 yd (64 m) of the vessel.

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

This activity occurs in 7D and part of 8C in the VACAPES Study Area. The location was established to be far enough from shore to reduce civilian encounters (e.g., diving and

¹ The Beaufort Scale of Wind Force was developed as a means for sailors to gauge wind speeds through visual observations of the sea state. The scale runs from 0 for calm to force 12 for Hurricane.

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recreational fishing), while remaining within 150 nm from shore-based facilities (the established flight distance restriction for F-A18 jets during unit level training events).

1. Aircraft will visually survey the target and buffer zone for marine mammals and sea turtles prior to and during the exercise. The survey of the impact area will be made by flying at 1,500 ft altitude or lower, if safe to do so, and at the slowest safe speed. Release of ordnance through cloud cover is prohibited: aircraft must be able to actually see ordnance impact areas. Survey aircraft should employ most effective search tactics and capabilities.
2. A buffer zone of 5,100-yd (4,663 m) radius will be established around the intended target zone. The exercises will be conducted only if the buffer zone is clear of sighted marine mammals and sea turtles.
3. If surface vessels are involved, lookouts will survey for *Sargassum* rafts. Ordnance shall not be targeted to impact within 5,100 yards (4663 m) of known or observed *Sargassum* rafts or coral reefs.
4. At-sea BOMBEXs using live ordnance will occur during daylight hours only.

11.4.3 Air-to-Surface Missile Exercises (explosive)

1. Ordnance shall not be targeted to impact within 1,800 yd (1,646 m) of known or observed *Sargassum* rafts or coral reefs.
2. Aircraft will visually survey the target area for marine mammals and sea turtles. Visual inspection of the target area will be made by flying at 1,500 ft altitude or lower, if safe to do so, and at slowest safe speed. Firing or range clearance aircraft must be able to actually see ordnance impact areas. Explosive ordnance shall not be targeted to impact within 1,800 yd (1,646 m) of sighted marine mammals and sea turtles.

11.4.4 Mine Neutralization Training Involving Underwater Detonations (up to and including 20-lbs NEW charges)

Mine neutralization involving underwater detonations occurs in shallow water (0-120 ft or 0-36 m) and is executed by divers using scuba. NMFS issued a Biological Opinion (BO) in 2002 for underwater detonations of up to and including 20-lb explosive charges related to MINEX training (NMFS, 2002). Historically this activity has occurred in shallow water portions of W-50 in the VACAPES Study Area pursuant to the BO. This location is just offshore from NAS Oceana Dam Neck Annex, a restricted-access Naval Installation and overlaps an established Surface Danger Zone for live ordnance use, therefore civilian encounters are minimized. This location has a low bathymetric relief and a sand-silt bottom.

These exercises utilize small boats that deploy from shore based facilities. Often times these small boats are rigid-hulled inflatable boats (RHIBs) which are designed for shallow water and have limited seaworthiness necessitating a nearshore location. The exercise is a one-day event that occurs only during daylight hours therefore the distance from shore is limited.

1. This activity will only occur in W-50.

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2. Observers will survey the buffer zone, a 700 yd (640 m) radius from detonation location, for marine mammals and sea turtles from all participating vessels during the entire operation. A survey of the buffer zone (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. During late July through October, an additional surface observer will be added to more carefully look for hatchling turtles in the buffer zone. Aerial survey support will be utilized whenever assets are available.
3. Detonation operations will be conducted during daylight hours.
4. If a sea turtle or marine mammal is sighted within the buffer zone, the animal will be allowed to leave of its own volition. The Navy will suspend detonation exercises and ensure the area is clear for a full 30 minutes prior to detonation.
5. Divers placing the charges on mines and dive support vessel personnel will survey the area for sea turtles and marine mammals and will report any sightings to the surface observers. These animals will be allowed to leave of their own volition and the buffer zone will be clear for 30 minutes prior to detonation.
6. No detonations will take place within 3.2 nm of an estuarine inlet (*e.g.*, Chesapeake Bay).
7. No detonations will take place within 1.6 nm of shoreline.
8. No detonations will take place within 1,000 ft of any known artificial reef, shipwreck, or live hard-bottom community.
9. Personnel will record any protected species observations during the exercise as well as measures taken if species are detected within the buffer zone.

Appendix A, Chapter 1 Introduction

Table 1-1 of Appendix A (page App A-5) is revised by replacing “5.75” in the BOMBEX Air-K row each place it occurs with “1.25”.