



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

**JAN 13 2011**

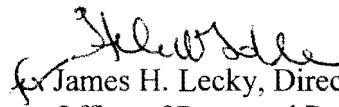
CAPT Thomas J. Brovarone  
The Commander  
U.S. Naval Surface Warfare Center Panama City Division  
110 Vernon Avenue  
Panama City, FL 32407-7001

Dear Captain Brovarone:

Enclosed is a Letter of Authorization (LOA) issued to the Commander, U.S. Naval Surface Warfare Center Panama City Division (NSWC PCD), under the authority of Section 101(a)(5)(A) of the Marine Mammal Protection Act (16 U.S.C. 1361 et seq.) and the regulations governing the take of marine mammals incidental to Navy's research, development, test and evaluation (RDT&E) activities at the NSWC PCD. This authorization is effective for one year and covers the taking of marine mammals incidental to the Navy RDT&E activities identified in the final rule, which include the use of active sonar sources and underwater explosives, provided the mitigation, monitoring and reporting requirements are undertaken as required by the regulations (75 FR 3395, January 21, 2010) and the LOA.

If you have any questions concerning the LOA or its requirements, please contact Shane Guan, Office of Protected Resources, National Marine Fisheries Service at 301-713-2289.

Sincerely,

  
James H. Lecky, Director  
Office of Protected Resources

Enclosure



**UNITED STATES DEPARTMENT OF COMMERCE**  
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DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL MARINE FISHERIES SERVICE

Letter of Authorization

The Commander, U.S. Naval Surface Warfare Center Panama City Division, 110 Vernon Avenue, Panama City, FL 32407-7001 and persons operating under his authority (i.e., Navy), are authorized to take marine mammals incidental to the U.S. Navy (Navy) Research, Development, Test, and Evaluation (RDT&E) activities conducted in the Naval Surface Warfare Center Panama City Division (NSWC PCD) Study Area in the Gulf of Mexico (GOM) in accordance with 50 CFR Part 218, Subpart S -- Taking Marine Mammals Incidental to U.S. Naval Surface Warfare Center Panama City Division Mission Activities subject to the provisions of the Marine Mammal Protection Act (16 U.S.C. 1361 *et seq.*; MMPA) and the following conditions:

1. This Authorization is valid for the period January 21, 2011, through January 20, 2012.

2. This Authorization is valid only for the unintentional taking of the species of marine mammals and methods of take identified in 50 CFR § 218.181(b) and Condition 5 of this Authorization incidental to the activities specified in 50 CFR § 218.180(c) and Condition 4(a) of this Authorization and occurring within the NSWC PCD Study Area, which includes St. Andrew Bay (SAB) and military warning areas (areas within the GOM subject to military operations) W-151 (includes Panama City Operating Area), W-155 (includes Pensacola Operating Area), and W-470, as described in Figures 2-1 and 2-2 of the Navy's application for the Letter of Authorization (LOA). The coordinates of the NSWC PCD Study Area are: 88°01'29.89" W, 30°10'55.21" N; 88°01'29.97" W, 28°51'21.21" N; 83°59'59.13" W, 29°43'00.31" N; and 83°30'59.93" W, 28°05'00.20" N.

3. This Authorization is valid only if the Holder of the Authorization or any person(s) operating under his authority implements the mitigation, monitoring, and reporting required pursuant to 50 CFR §§ 218.183 & 218.184 and implements the Terms and Conditions of this Authorization.

4. (a) The taking of marine mammals by the Navy is only authorized if it occurs incidental to the use of high frequency active sonar (HFAS), mid-frequency active sonar (MFAS), ordnance operations, and projectile firing operation in the amounts indicated below:

(i) The use of the following HFAS and MFAS or similar sources for U.S. Navy mission activities in territorial waters in the amounts indicated below:



- (A) AN/SQS-53/56 Kingfisher – up to 3 hours per year;
- (B) Sub-bottom profiler (2-9 kHz) - up to 21 hours per year;
- (C) REMUS SAS-LF - up to 12 hours per year;
- (D) REMUS Modem - up to 25 hours per year;
- (E) Sub-bottom profiler (2-16 kHz) - up to 24 hours per year;
- (F) AN/SQQ-32 - up to 30 hours per year;
- (G) REMUS-SAS-LF - up to 20 hours per year;
- (H) SAS-LF - up to 35 hours per year;
- (I) AN/WLD-1 RMS-ACL - up to 33.5 hours per year;
- (J) BPAUV Sidescan - up to 25 hours per year;
- (K) TVSS - up to 15 hours per year;
- (L) F84Y - up to 15 hours per year;
- (M) BPAUV Sidescan - up to 25 hours per year;
- (N) REMUS-SAS-HF - up to 10 hours per year;
- (O) SAS-HF - up to 11.5 hours per year;
- (P) AN/AQS-20 - up to 545 hours per year;
- (Q) AN/WLD-11 RMS Navigation - up to 15 hours per year; and
- (R) BPAUV Sidescan - up to 30 hours per year.

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

- (A) AN/SQS-53/56 Kingfisher - up to 1 hour per year;
- (B) Sub-bottom profiler (2-9 kHz) - up to 1 hour per year;
- (C) REMUS Modem - up to 12 hours per year;
- (D) Sub-bottom profiler (2-16 kHz) - up to 1 hour per year;
- (E) AN/SQQ-32 - up to 1 hour per year;
- (F) SAS-LF - up to 15 hours per year;
- (G) AN/WLD-1 RMS-ACL - up to 5 hours per year;
- (H) BPAUV Sidescan - up to 38 hours per year;
- (I) TVSS - up to 16.5 hours per year;
- (J) F84Y - up to 15 hours per year;
- (K) REMUS-SAS-HF - up to 25 hours per year;
- (L) SAS-HF - up to 15 hours per year;
- (M) AN/AQS-20 - up to 15 hours per year; and
- (N) BPAUV Sidescan - up to 25 hours per year.

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

- (A) Range 1 (0-10 lb) - up to 51 detonations per year;
- (B) Range 2 (11-75 lb) - up to 3 detonations per year; and
- (C) Line charges - up to 3 detonations per year.

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

(A) Range 3 (76-600 lb) - up to 16 detonations per year.

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

- (A) 5 in. Naval gunfire - up to 60 rounds per year;
- (B) 40 mm rounds - up to 480 rounds per year;
- (C) 30 mm rounds - up to 600 rounds per year;
- (D) 20 mm rounds - up to 2,967 rounds per year;
- (E) 76 mm rounds - up to 240 rounds per year;
- (F) 25 mm rounds - up to 525 rounds per year; and
- (G) Small arms - up to 6,000 rounds per year.

(b) If the number of sonar operating hours or number of explosive detonations indicated in Condition 4(a) are exceeded by the upper limit, subsequent LOAs issued under the NSWC PCD RDT&E final rule shall ensure that the total over five years does not exceed the amount indicated in 50 CFR § 218.180(c) and Condition 4(a) of the Letter of Authorization.

5. This authorization is valid only for the incidental take of the following marine mammal species, and only by the indicated method and amount of take:

(a) Level B Harassment:

- (i) Sperm whale (*Physeter macrocephalus*) - 2;
- (ii) Risso's dolphin (*Grampus griseus*) - 2;
- (iii) Bottlenose dolphin (*Tursiops truncatus*) - 614;
- (iv) Atlantic spotted dolphin (*Stenella frontalis*) - 471;
- (v) Pantropical spotted dolphin (*S. attenuata*) - 23;
- (vi) Striped dolphin (*S. coeruleoalba*) - 5;
- (vii) Spinner dolphin (*S. longirostris*) - 23;
- (viii) Melon-headed whale (*Peponocephala electra*) - 2;
- (ix) Short-finned pilot whale (*Globicephala macrorhynchus*) - 1;
- (x) Clymene dolphin (*S. clymene*) - 5;

(b) Level A Harassment:

- (i) Bottlenose dolphin (*Tursiops truncatus*) - 2;
- (ii) Atlantic spotted dolphin (*Stenella frontalis*) - 2;
- (iii) Pantropical spotted dolphin (*S. attenuata*) - 1;
- (iv) Spinner dolphin (*S. longirostris*) - 1.

6. Mitigation - The Holder of this Authorization, and any person(s) operating under his authority, must implement the following mitigation measures when conducting activities identified in 50 CFR § 218.180(c) and Condition 4(a) of the Letter of Authorization:

(a) Mitigation Measures for HFAS/MFAS Operations

(i) Personnel Training:

(A) All marine observers onboard platforms involved in NSW PCD RDT&E activities shall complete Marine Species Awareness Training (MSAT).

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

(ii) Marine Observer Responsibilities:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(iii) Operating Procedures:

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

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

(C) Test Directors shall make use of marine species detection cues and information to limit interaction with marine species to the maximum extent possible consistent with safety of the vessel.

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

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

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

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

(H) Safety Zones—When marine mammals are detected by any means (aircraft, shipboard marine observer, or acoustically) the Navy will ensure that HFAS/MFAS transmission levels are limited to at least 6 dB below normal operating levels if any detected marine mammals are within 1,000 yards (914 m) of the sonar source (the bow).

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

(2) The Navy shall ensure that HFAS/MFAS transmissions will be limited to at least 10 dB below the equipment's normal operating level if any detected animals are within 500 yards (457 m) of the sonar source. Vessels will continue to limit maximum ping levels by this 10-dB factor until the marine mammal has been seen to

leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yards (1,828 m) beyond the location of the last detection.

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

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

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

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

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

(b) Mitigation Measures for Ordnance and Projectile Firing

(i) No detonations over 34 kg (75 lb) shall be conducted in territorial waters, except the line charge detonation.

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

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

(iv) Visual surveys and aerial surveys of the clearance zones specified in 50 CFR § 218.183(b)(6)(i)-(iii) and Condition 6(b)(vi)(A)-(C) of this Authorization shall



be conducted in accordance with 50 CFR § 218.184(c) and Condition 7(c) of this Authorization for all test operations that involve detonation events with large net explosive weight (NEW). Any protected species sighted will be reported.

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

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

- (A) NEW between 76 – 600 lb: clearance zone is 2,863 m (9,393 ft);
- (B) NEW between 11 – 75 lb: clearance zone is 997 m (2,865 ft); and
- (C) NEW less than 11 lb – clearance zone is 345 m (1,132 ft).

(c) Mitigation Measures for Surface Operations:

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

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

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

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

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

(iii) While in transit, naval vessels shall be alert at all times, use extreme caution, and proceed at a "safe speed" (the minimum speed at which mission goals or safety will not be compromised) so that the vessel can take proper and effective action to avoid a collision with any marine animal and can be stopped within a distance appropriate to the prevailing circumstances and conditions.

(iv) When marine mammals have been sighted in the area, Navy vessels shall increase vigilance and shall implement measures to avoid collisions with marine

mammals and avoid activities that might result in close interaction of naval assets and marine mammals. Actions shall include changing speed and/or direction and are dictated by environmental and other conditions (e.g., safety, weather).

(v) Naval vessels shall maneuver to keep at least 500 yd (457 m) away from any observed whale and avoid approaching whales head-on. This requirement does not apply if a vessel's safety is threatened, such as when change of course will create an imminent and serious threat to a person, vessel, or aircraft, and to the extent vessels are restricted in their ability to maneuver. Vessels shall take reasonable steps to alert other Navy vessels in the vicinity of the whale.

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

7. Monitoring and Reporting – When conducting operations identified in 50 CFR § 218.180(c) and Condition 4(a) of the Letter of Authorization, the Holder of the Authorization and any person(s) operating under his authority must implement the following monitoring and reporting measures. All reports should be submitted to the Director, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring MD 20910 and copies provided to the Assistant Regional Administrator for Protected Resources, Southeast Regional Office, National Marine Fisheries Service, 263 13<sup>th</sup> Avenue South, Saint Petersburg, Florida, 33701.

(a) The Holder of the Letter of Authorization issued pursuant to 50 CFR §§ 216.106 and 218.186 for activities described in 50 CFR § 218.180(c) and Condition 4(a) of this Authorization 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 50 CFR § 218.180(c) and Condition 4(a) of this Authorization is thought to have resulted in the mortality of any marine mammals, or in any take of marine mammals not identified or authorized in 50 CFR § 218.181(b) and Condition 5 of this Authorization.

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

(i) Visual Surveys – Vessel, Aerial and Shore-based: The Holder of this Authorization shall visually survey a minimum of 2 HFAS/MFAS activities and 2 explosive events per year. If the 53C sonar was being operated, such activity must be monitored as one of the HFAS/MFAS activities. For explosive events, one of the monitoring measures shall be focused on a multiple detonation event.

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

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

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

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

- (1) location of sighting;
- (2) species (or to the lowest taxa possible);
- (3) number of individuals;
- (4) number of calves present, if any;
- (5) duration of sighting;
- (6) behavior of marine animals sighted;
- (7) direction of travel;
- (8) environmental information associated with sighting event including Beaufort sea state, wave height, swell direction, wind direction, wind speed, glare, percentage of glare, percentage of cloud cover; and
- (9) when in relation to Navy exercises did the sighting occur (before, during or after detonations/exercise).

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

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

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

(1) Aerial surveys:

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

(ii) The aerial survey team shall collect both visual sightings and behavioral observations of marine animals.

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

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

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

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

(1) Vessel Surveys:

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

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

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

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

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

### (3) Shore-based Surveys:

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

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

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

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

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

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

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

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

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

(iii) Marine Mammal Observers on Navy vessels:

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

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

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

(D) MMOs shall inform the Navy marine observer of any marine mammal sighting so that appropriate action may be taken by the chain of command. For less biased data, it is recommended that MMOs schedule their daily observations to duplicate the marine observers' schedule.

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

- (1) location of sighting;
- (2) species;
- (3) number of individuals;
- (4) number of calves present, if any;
- (5) duration of sighting;
- (6) behavior of marine animals sighted;
- (7) direction of travel;
- (8) environmental information associated with sighting event including Beaufort sea state, wave height, swell direction, wind direction, wind speed, glare, percentage of glare, percentage of cloud cover; and
- (9) when in relation to navy RDT&E activities did the sighting occur (before, during or after detonations/exercise).

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

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

(f) Annual NSWC PCD Report – The Navy shall submit a report annually on October 1 describing the RDT&E activities conducted and implementation and results of the NSWC

PCD Monitoring Plan (through August 1 of the same year) and RDT&E activities. Although additional information will also be gathered, the MMOs collecting marine mammal data pursuant to the NSW PCD Monitoring Plan shall, at a minimum, provide the same marine mammal observation data listed below.

(i) RDT&E Information:

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

(ii) Individual Marine Mammal Sighting Info:

- (A) Location of sighting;
- (B) Species;
- (C) Number of individuals;
- (D) Calves observed (y/n);
- (E) Initial detection sensor;
- (F) Indication of specific type of platform observation made from;
- (G) Length of time observers maintained visual contact with marine mammal(s);
- (H) Wave height (in feet);



(I) Visibility;

(J) Sonar source in use (y/n);

(K) Indication of whether animal is <200 yd, 200-500 yd, 500-1,000 yd, 1,000-2,000 yd, or >2,000 yd from sonar source above;

(L) Mitigation implementation – Whether operation of sonar sensor was delayed, or sonar was powered or shut down, and how long the delay was;

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

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

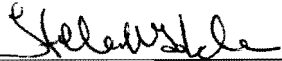
(O) An evaluation of the effectiveness of mitigation measures designed to avoid exposing marine mammals to HFAS/MFAS. This evaluation shall identify the specific observations that support any conclusions the Navy reaches about the effectiveness of the mitigation.

(g) The Navy shall respond to NMFS comments and requests for additional information or clarification on the NSWC PCD Annual NSWC PCD Report if submitted within 3 months of receipt. The report will be considered final after the Navy has addressed NMFS' comments or provided the requested information, or three months after the submittal of the draft if NMFS does not comment by then.

8. Prohibitions - Notwithstanding takings identified in 50 CFR § 218.181 and authorized in Condition 5 of this Letter of Authorization, no person in connection with the activities described in 50 CFR § 218.180 and Condition 4(a) may violate, or fail to comply with, the terms, conditions, and requirements of 50 CFR Subpart S or this Letter of Authorization.

9. This Authorization may be modified, suspended or withdrawn (pursuant to 50 CFR § 216.106(e)(1 or 2)) if the Holder or any person operating under his authority fails to abide by the conditions prescribed herein or if the authorized taking is having more than a negligible impact on the species or stock of affected marine mammals.

10. A copy of this Authorization and the attached Subpart S of the regulations, or a document containing the equivalent requirements specified in this Authorization or 50 CFR Subpart S, must be in the possession of the on-site Commanding Officer in order to take marine mammals under the authority of this Letter of Authorization while conducting the specified activity(ies).



*for* \_\_\_\_\_  
James H. Lecky, Director  
Office of Protected Resources  
National Marine Fisheries Service

*Jan 13, 2011*  
Date