DEPARTMENT OF COMMERCE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NATIONAL MARINE FISHERIES SERVICE

Letter of Authorization

The Commander, U.S. Pacific Fleet, 250 Makalapa Drive, Pearl Harbor, HI 96860-7000, and persons operating under his authority (i.e., Navy), are authorized to take marine mammals incidental to Navy exercises conducted in the Mariana Islands Range Complex in accordance with 50 CFR Part 218, Subpart L--Taking Marine Mammals Incidental to U.S. Navy Training in the Mariana Islands Range Complex (MIRC) 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 August 12, 2012, through August 3, 2015.

2. This Authorization is valid only for the unintentional taking of the species of marine mammals and methods of take identified in 50 CFR § 218.102(c) and Condition (5) of this Authorization incidental to the activities specified in 50 CFR § 218.100(c) and Condition (4)(a) of this Authorization and occurring within the MIRC, (as depicted in Figure 1-1 in the Navy's Final Environmental Impact Statement for the MIRC), which is bounded by a pentagon with the following five corners: 16°46'29.3376" N. lat., 138°00'59.835" E. long.; 20°02'24.8094" N. lat., 140°10'13.8642" E. long.; 20° 3' 27.5538" N. lat., 149° 17' 41.0388" E. long.; 7° 0' 30.0702" N. lat., 149° 16' 14.8542"E. long; and 6° 59' 24.633" N. lat, 138° 1' 29.7228" E. long.

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 §§ 218.104 & 218.105 and implements the Terms and Conditions of this Authorization.

4. (a) This Authorization is valid for the activities identified below within the estimated amounts annually:

(1) The use of the following mid-frequency active sonar (MFAS) and high frequency active sonar (HFAS) sources for U.S. Navy anti-submarine warfare (ASW) training, maintenance, and research, development, testing and evaluation (RDT&E):

(i) AN/SQS-53 (hull-mounted sonar) – 2173 hours per year;
(ii) AN/SQS-56 (hull-mounted sonar) – 141 hours per year;
(iii) SSQ-62 (sonobuoys) – 1654 sonobuoys per year;
(iv) AN/AQS-22 (helicopter dipping sonar) – 592 dips per year;
(v) AN/BQQ-10 (submarine hull-mounted sonar) - 12 hours per year;
(vi) MK-48, MK-46, or MK-54 (torpedoes) – 40 per year;
(vii) AN/SSQ-110 (IEER) – 106 per year;
(viii) AN/SSQ-125 (AEER) – 106 per year;
(ix) Range Pingers - 280 hours per year; and
(x) PUTR Transponder - 280 hours per year.

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

(i) Underwater Explosives (Net Explosive Weight):
(A) 5" Naval Gunfire (9.5 lbs NEW)
(B) 76 mm rounds (1.6 lbs NEW)
(C) Maverick (78.5 lbs NEW)
(D) Harpoon (448 lbs NEW)
(E) MK-82 (238 lbs NEW)
(F) MK-83 (574 lbs NEW);
(G) MK-84 (945 lbs NEW);
(H) MK-48 (851 lbs NEW)
(I) Demolition Charges (10 lbs NEW);
(J) AN/SSQ-110A (IEER explosive sonobuoy - 5 lbs NEW);
(K) Hellfire (16.5lbs NEW);
(L) GBU 38/32/31.

(ii) Training Events:
(A) Gunnery Exercises (S-S GUNEX) – up to12 per year;
(B) Bombing Exercises (BOMBEX) – up to 4 per year;
(C) Sinking Exercises (SINKEX) – up to 2 per year;
(D) Extended Echo Ranging and Improved Extended Echo Ranging (EER/IEER) Systems – up to 106 per year;
(E) Demolitions – up to 50 per year; and
(F) Missile exercises (A-S MISSILEX) – up to 2 per year.

(b) This authorization is also valid for the activities and sources listed in 4(a) should the amounts (i.e., hours, dips, number of exercises) vary from those estimated in 4(a), provided that the variation does not result in exceeding the amount of take indicated in 5(b), below.

5. (a) The incidental take of marine mammals under the activities identified in 4, above, and § 218.100(c) is limited to the species listed in 5(b) and 5(c) below, by the indicated method of take and the indicated number of times (estimated based on the authorized amounts of sound source operation), but with the following allowances for annual variation in activities:

(1) The take, by harassment, that occurs during the year covered by this LOA (a post-calculation/estimation of which must be provided in the annual report) of any species of marine mammal may not exceed the amount identified in 5(b) and 5(c), below, for that species by more than 25%.

(2) The take, by harassment, total of all marine mammal species combined that occurs during the years covered by this LOA may not exceed the estimated total, indicated in 5(b) and 5(c), by more than 10%.

(3) The total take, by harassment, of any species over the course of the five years covered by the regulations may not exceed the amounts indicated in 50 CFR 218.102(c)(1), which is 10% above the numbers indicated in 5(b) and 5(c) below multiplied by 5 for each year of the rule. A running calculation/estimation of takes of each species over the course of the years covered by the rule must be maintained.

(b) Level B Harassment:

(1) Mysticetes:

(i) Humpback whale (Megaptera novaeangliae) – 335 per year
(ii) Fin whale (Balaenoptera physalus) – 15 per year
(iii) Blue whale (Balaenoptera musculus) – 5 per year
(iv) Minke whale (Balaenoptera acutorostrata) – 445 per year
(v) Bryde's whale (Balaenoptera edeni) – 457 per year
(vi) Sei whale (Balaenoptera borealis) – 14 per year

(2) Odontocetes:

(i) Sperm whales (Physeter macrocephalus) – 381 per year
(ii) Killer whale (Orcinus orca) – 230 per year
(iii) Pygmy or dwarf sperm whales (Kogia breviceps or K. sima) – 6706 per year
(iv) Blainville's beaked whales (Mesoplodon densirostris) – 770 per year
(v) Cuvier's beaked whales (Ziphius cavirostris) – 3628 per year
(vi) Ginkgo-toothed beaked whales (Mesoplodon ginkgodens) – 430 per year
(vii) Longman's beaked whale (Indopacetus pacificus) – 206 per year
(viii) Short-finned pilot whale (Globicephala macrorynchus) – 2274 per year
(ix) Melon-headed whale (Peponocephala electra) – 2863 per year
(x) Pygmy killer whale (Feresa attenuata) – 160 per year
(xi) False killer whale (Pseudorca crassidens) – 1289 per year
(xii) Striped dolphin (Stenella coeruleoalba) - 8858 per year
(xiii) Short-beaked common dolphin (Delphinus delphis) – 943 per year
(xiv) Risso's dolphin (Grampus griseus) – 6773 per year
(xv) Bottlenose dolphin (Tursiops truncates) – 171 per year
(xvi) Fraser's dolphin (Lagenodelphis hosei) – 4615 per year
(xvii) Pantropical spotted dolphin (Stenella attenuata) – 32499 per year
(xviii) Rough-toothed dolphin (Steno bredanensis) – 241 per year
(xix) Spinner dolphin (Stenella longirostris) – 2144 per year
(xx) Unidentified delphinid – 1538 per year

(c) Level A Harassment:

(1) Sperm whale – 1 per year;
(2) Pantropical spotted dolphin – 1 per year.

(d) Level A Harassment and/or mortality of no more than 10 beaked whales (total), of any of the species listed in 5(b)(2)(iv, v, vi, and vii) over the course of the 5-year regulations.

6. Mitigation - The Holder of this Authorization, and any individuals operating under his authority, must implement the following mitigation measures when conducting activities identified in 50 CFR § 218.100(c) and Condition 4(a) of this Authorization:

(a) Personnel Training:

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

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

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

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

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

(6) All COs, XOs, and officers standing watch on the bridge will have reviewed the Marine Species Awareness Training material prior to a training event employing the use of MFAS/HFAS.

(b) General Operating Procedures (for all training types):

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

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

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

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

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

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

(7) While in transit, naval vessels shall be alert at all times, use extreme caution, and proceed at a "safe speed", which means the speed at which the CO can maintain crew safety and effectiveness of current operational directives, so that the vessel can take action to avoid a collision with any marine mammal.

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

(9) Navy aircraft participating in exercises at-sea shall conduct and maintain surveillance for marine mammals as long as it does not violate safety constraints or interfere with the accomplishment of primary operational duties.

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

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

(c) Operating Procedures (for Anti-submarine Warfare Operations):

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

(2) All surface ships participating in ASW training events shall have, in addition to the three personnel on watch noted in (1), at least two additional personnel on watch as lookouts at all times during the exercise.

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

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

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

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

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

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

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

(10) Safety Zones— When marine mammals are detected by any means (aircraft, shipboard lookout, or acoustically) the Navy shall ensure that sonar transmission levels are limited to at least 6 dB below normal operating levels if any detected marine mammals are within 1000 yards (914 m) of the sonar window or dome (i.e., limit to at most 229 dB for AN/SQS-53 and 219 for AN/SQS-56, etc.).

(i) Ships and submarines shall continue to limit maximum transmission levels by this 6-dB factor until the animal has been seen to leave the 1000-yd safety zone, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yds (1829 m) beyond the location of the last detection.

(ii) When marine mammals are detected by any means (aircraft, shipboard lookout, or acoustically) the Navy shall ensure that sonar transmission levels are limited to at least 10 dB below normal operating levels if any detected marine mammals are within 500 yards (914 m) of the sonar window or dome. Ships and submarines shall continue to limit maximum ping levels by this 10-dB factor until the animal has been seen to leave the 500-yd safety zone, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yds (1829 m) beyond the location of the last detection.

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

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

(v) If the need for power-down should arise (as detailed in 218.114(a)(3)(x)) when the Navy was operating a hull-mounted or sub-mounted source above 235 dB (infrequent), the Navy shall follow the requirements as though they were operating at 235 dB—the normal operating level (i.e., the first power-down will be to 229 dB, regardless of at what level above 235 dB active sonar was being operated).

(11) 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.

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

(13) Submarine sonar operators will review detection indicators of close-aboard marine mammals prior to the commencement of ASW training events involving MFAS.

(d) Operating Procedures for Underwater Detonations (up to 10-lb charges):

(1) Exclusion Zones – Explosive charges shall not be detonated if a marine mammal is detected within 700 yards (640 m) of the detonation site.

(2) Underwater detonations using Time-delay firing devices (TDFDs) shall only be conducted during daylight hours.

(3) Time-delays longer than 10 minutes shall not be used.

(4) Initiation of the firing device shall not start until the mitigation zone is clear for a full 30 min prior to initiation of the timer.

(5) A monitoring and mitigation zone shall be established around each underwater detonation location, as indicated in Table 1 based on charge weight and length of time-delay used.

Table 1. Buffer Zone Radius (yd) for TDFDs Based on Size of Charge and Length of Time-Delay, with Additional Buffer Added to Account for Faster Swim Speeds

		Time-delay					
		5 min	6 min	7min	8 min	9 min	10 min
Charge Size	5lb	1,000 yd	1,000 yd	1,000 yd	1,000 yd	1,400 yd	1,400 yd
	10 lb	1,000 yd	1,000 yd	1,000 yd	1,400 yd	1,400 yd	1,400 yd

(i) When conducting surveys, boats shall position themselves near the mid-point of the mitigation zone radius (but always outside the detonation plume/human safety zone) and travel in a circular pattern around the detonation location, surveying both the inner and outer areas.

(ii) To the best extent practical, boats shall maintain a 10-knot search speed to ensure adequate coverage of the mitigation zone.

(6) TDFD detonations with a mitigation zone of less than or equal to1,400 yd:

(i) A minimum of two boats shall be used to survey for marine mammals.

(ii) Each boat shall be positioned on opposite sides of the detonation location, separated by 180 degrees.

(7) TDFD detonations with a mitigation zone of greater than or equal to 1,400 yd:

(i) A minimum of three boats or two boats and one helicopter shall be used to survey for marine mammals.

(ii) When using at least three boats, each boat would be positioned equidistant from one another (120 degrees separation for three boats, 90 degrees separation for four boats, etc.)

(iii) A helicopter, if available, can be used in lieu of one of the required boats.

(8) Two dedicated observers in each boat would conduct continuous visual surveys of the monitoring zone for the duration of the training event.

(9) Monitoring zones would be surveyed beginning 30 min prior to detonation and for 30 min after detonation. The survey may be conducted from the surface, by divers, and/or from the air.

(i) Divers placing the charges on mines shall observe the immediate underwater area around a detonation site for marine mammals and report sightings to surface observers. The survey may be conducted from the surface, by divers, and/or from the air.

(ii) If a marine mammal is sighted within an established mitigation zone or moving towards it, underwater detonation events would be suspended until the marine mammal voluntarily leaves the area and the area is clear of marine mammals for at least 30 min.

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

(11) Mine Laying Training – Though mine laying training operations involve aerial drops of inert training shapes on floating targets, measures (1) and (9) above will

apply to mine laying training. To the maximum extent feasible, the Navy shall retrieve inert mine shapes dropped during mine laying training.

(e) Sinking Exercise:

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

(2) An exclusion zone with a radius of 1.0 nm (1.9 km) will be established around each target. An additional buffer of 0.5 nm (0.9 km) will be added to account for errors, target drift, and animal movements. Additionally, a safety zone, which will extend beyond the buffer zone by an additional 0.5 nm (0.9 km), would be surveyed. Together, the zones extend out 2 nm (3.7 km) from the target.

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

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

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

(iii) In addition to the overflights, the 2-nm zone around the target shall be monitored by passive acoustic means, when assets are available. This passive acoustic monitoring would be maintained throughout the exercise. Additionally, passive sonar onboard submarines may be utilized to detect any vocalizing marine mammals in the area. The OCE will be informed of any aural detection of marine mammals and will include this information in the determination of when it is safe to commence the exercise.

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

(v) The results of all visual, aerial, and acoustic searches shall be reported immediately to the OCE. No weapons launches or firing may commence until the OCE declares the safety and exclusion zones free of marine mammals.

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

(vii) During breaks in the exercise of 30 minutes or more, the 2-nmzone around the target shall again be surveyed for any marine mammal. If marine mammals are sighted within 2-nm around the target zone or buffer zone, the OCE shall be notified, and the procedure described above shall be followed.

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

(4) Aerial surveillance shall be conducted using helicopters or other aircraft based on necessity and availability. The Navy has several types of aircraft capable of performing this task; however, not all types are available for every exercise. For each exercise, the available asset best suited for identifying objects on and near the surface of the ocean shall be used. These aircraft shall be capable of flying at the slow safe speeds necessary to enable viewing of marine vertebrates with unobstructed, or minimally obstructed, downward and outward visibility. The 2-nm zone around the target surveys may be cancelled in the event that a mechanical problem, emergency search and rescue, or other similar and unexpected event preempts the use of one of the aircraft onsite for the exercise.

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

(6) The exercise shall not be conducted unless the 2-nm zone around the target can be adequately monitored visually. Should low cloud cover or surface visibility prevent adequate visual monitoring as described previously, the exercise shall be delayed until conditions improved, and all of the above monitoring criteria could be met.

(7) In the event that any marine mammals are observed to be harmed in the area, a detailed description of the animal shall be taken, the location noted, and if possible, photos taken of the marine mammal. This information shall be provided to NMFS via the Navy's regional environmental coordinator for purposes of identification (see the Stranding Plan for detail).

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

(f) Surface-to-Surface Gunnery (up to 5-inch Explosive Rounds)

(1) For exercises using targets towed by a vessel, target-towing vessels shall maintain a trained lookout for marine mammals when feasible. If a marine mammal is sighted in the vicinity, the tow vessel will immediately notify the firing vessel, which will suspend the exercise until the area is clear.

(2) A 600-yard (585 m) radius buffer zone will be established around the intended target.

(3) From the intended firing position, trained lookouts will survey the buffer zone for marine mammals prior to commencement and during the exercise as long as practicable. 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) The exercise will be conducted only when the buffer zone is visible and marine mammals are not detected within it.

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

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

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

(3) If available, target towing vessels shall maintain a lookout (unmanned towing vessels will not have a lookout available). If a marine mammal is sighted in the vicinity of the exercise, the tow vessel shall immediately notify the firing vessel in order to secure gunnery firing until the area is clear.

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

(h) Surface-to-Air Gunnery (Explosive and Non-explosive Rounds)

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

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

(3) Target towing aircraft shall maintain a lookout if feasible. If a marine mammal is sighted in the vicinity of the exercise, the tow aircraft will immediately notify the firing vessel in order to secure gunnery firing until the area is clear.

(i) Air-to-Surface Gunnery (Explosive and Non-explosive Rounds)

(1) A 200-yard (183 m) radius buffer zone will be established around the intended target.

(2) If surface vessels are involved, lookout(s) will visually survey the buffer zone for marine mammals to and during the exercise.

(3) Aerial surveillance of the buffer zone for marine mammals will be conducted prior to commencement of the exercise. Aerial surveillance altitude of 500 feet to 1,500 feet (152 – 456 m) is optimum. Aircraft crew/pilot will maintain visual watch during exercises. Release of ordnance through cloud cover is prohibited; aircraft must be able to actually see ordnance impact areas.

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

(j) Small Arms Training (Grenades, Explosive and Non-explosive Rounds) - Lookouts will visually survey for marine mammals. Weapons will not be fired in the direction of known or observed marine mammals.

(k) Air-to-Surface At-sea Bombing Exercises (explosive bombs and rockets):

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

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

(3) 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 (152 m) or lower, if safe to do so, and at the slowest safe speed. When safety or other considerations require the release of weapons without the releasing pilot having visual sight of the target area, a second aircraft, the "wingman," will clear the target area and perform the clearance and observation functions required before the dropping plane may release its weapons. Both planes must have direct communication to assure

immediate notification to the dropping plane that the target area may have been fouled by encroaching animals or people. The clearing aircraft will assure it has visual site of the target area at a maximum height of 1500 ft. The clearing plane will remain within visual sight of the target until required to clear the area for safety reasons. Survey aircraft shall employ most effective search tactics and capabilities.

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

(l) Air-to-Surface At-Sea Bombing Exercises (Non-explosive Bombs and Rockets)

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

(2) A 1,000 yard (914 m) radius buffer zone will be established around the intended target.

(3) Aircraft will visually survey the target and buffer zone for marine mammals prior to and during the exercise. The survey of the impact area will be made by flying at 1,500 feet (457 m) or lower, if safe to do so, and at the slowest safe speed. When safety or other considerations require the release of weapons without the releasing pilot having visual sight of the target area, a second aircraft, the "wingman," will clear the target area and perform the clearance and observation functions required before the dropping plane may release its weapons. Both planes must have direct communication to assure immediate notification to the dropping plane that the target area may have been fouled by encroaching animals or people. The clearing aircraft will assure it has visual site of the target area at a maximum height of 1,500 ft. The clearing plane will remain within visual sight of the target until required to clear the area for safety reasons. Survey aircraft shall employ most effective search tactics and capabilities.

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

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

(1) Aircraft will visually survey the target area for marine mammals. Visual inspection of the target area will be made by flying at 1,500 (457 m) feet 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.

(2) Explosive ordnance shall not be targeted to impact within 1,800 yds (1646 m) of sighted marine mammals.

(n) Aircraft Training Activities Involving Non-Explosive Devices:

An exclusion zone of 200 yd around the target location shall be clear of marine mammals. Pre- and post-surveillance and reporting requirements outlined for underwater detonations shall be implemented during Mining Training Activities.

(o) Extended Echo Ranging/Improved Extended Echo Ranging and Advanced Extended Echo-ranging (EER/IEER/AEER) - The following mitigation measures shall be used with the employment of IEER/AEER sonobuoys:

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

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

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

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

(5) Aural Detection - If the presence of marine mammals is detected aurally, then that shall cue the Navy aircrew to increase the diligence of their visual surveillance. Subsequently, if no marine mammals are visually detected, then the crew may continue multi-static active search.

(6) Visual Detection - If marine mammals are visually detected within 1,000 yd (914 m) of the explosive source sonobuoy (AN/SSQ-110A/SSQ-125) intended for use, then that payload shall not be activated. Aircrews may utilize this post once the marine mammals have not been re-sighted for 30 minutes, or are observed to have moved outside the 1,000 yd (914 m) safety buffer. Aircrews may shift their multi-static active search to another post, where marine mammals are outside the 914 m (1,000 yd) safety buffer.

(7) For IEER (AN/SSQ-110A), aircrews shall make every attempt to manually detonate the unexploded charges at each post in the pattern prior to departing the operations area by using the "Payload 1 Release" command followed by the "Payload 2 Release" command. Aircrews shall refrain from using the "Scuttle" command when two

payloads remain at a given post. Aircrews shall ensure that a 1,000 yd (914 m) safety buffer, visually clear of marine mammals, is maintained around each post as is done during active search operations.

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

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

(10) Marine mammal monitoring shall continue until out of own-aircraft sensor range.

(p) The Navy shall abide by the letter of the "Stranding Response Plan for Major Navy Training Exercises in the MIRC" (available at: http://www.nmfs.noaa.gov/pr/permits/incidental.htm), which is incorporated herein by reference, to include the following measures:

(1) Shutdown Procedures – When an Uncommon Stranding Event (USE – defined in § 216.271) occurs during a Major Training Exercise (MTE) (as defined in the Stranding Plan, meaning including Multi-strike group exercises, Joint Expeditionary exercises, and Marine Air Ground Task Force exercises in the MIRC), the Navy shall implement the procedures described below.

(i) The Navy shall implement a Shutdown (as defined in the Stranding Response Plan for MIRC) when advised by a NMFS Office of Protected Resources Headquarters Senior Official designated in the MIRC Stranding Communication Protocol that a USE (as defined in the Stranding Response Plan for MIRC) involving live animals has been identified and that at least one live animal is located in the water. NMFS and Navy shall communicate, as needed, regarding the identification of the USE and the potential need to implement shutdown procedures.

(ii) Any shutdown in a given area shall remain in effect in that area until NMFS advises the Navy that the subject(s) of the USE at that area die or are euthanized, or that all live animals involved in the USE at that area have left the area (either of their own volition or herded).

(iii) If the Navy finds an injured or dead marine mammal floating at sea during an MTE, the Navy shall notify NMFS immediately or as soon as operational security considerations allow. 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(s) is/are dead), location, time of first discovery, observed behaviors (if alive), and photo or video of the animals (if available). Based on the information provided, NMFS shall determine if, and advise the Navy whether a modified shutdown is appropriate on a case-by-case basis.

(iv) In the event, following a USE, that: a) qualified individuals are attempting to herd animals back out to the open ocean and animals are not willing to leave, or b) animals are seen repeatedly heading for the open ocean but turning back to shore, NMFS and the Navy shall coordinate (including an investigation of other potential anthropogenic stressors in the area) to determine if the proximity of MFAS/HFAS activities or explosive detonations, though farther than 14 nm from the distressed animal(s), is likely decreasing the likelihood that the animals return to the open water. If so, NMFS and the Navy shall further coordinate to determine what measures are necessary to further minimize that likelihood and implement those measures as appropriate.

(2) Within 72 hours of NMFS notifying the Navy of the presence of a USE, the Navy shall provide available information to NMFS (per the MIRC Communication Protocol) regarding the location, number and types of acoustic/explosive sources, direction and speed of units using MFAS/HFAS, and marine mammal sightings information associated with training activities occurring within 80 nm (148 km) and 72 hours prior to the USE event. Information not initially available regarding the 80 nm (148 km), 72 hours, period prior to the event shall be provided as soon as it becomes available. The Navy shall provide NMFS investigative teams with additional relevant unclassified information as requested, if available.

7. Monitoring and Reporting – When conducting operations identified in 50 CFR § 218.100(c) and Condition 4(a), 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 a copy provided to the Assistant Regional Administrator for Protected Resources, Pacific Islands Regional Office, National Marine Fisheries Service,1601 Kapiolani Boulevard, Suite 1110, Honolulu, HI 96814.

(a) General Notification of Injured or Dead Marine Mammals - Navy personnel shall ensure that NMFS is notified immediately (see Communication Plan) or as soon as clearance procedures allow) if an injured, stranded, or dead marine mammal is found during or shortly after, and in the vicinity of, any Navy training exercise utilizing MFAS, HFAS, or underwater explosive detonations. The Navy will provide NMFS with the name of species or description of the animal (s), the condition of the animal(s) (including carcass condition if the animal is dead), location, time of first discovery, observed behaviors (if alive), and photo or video (if available). In the event that an injured, stranded, or dead marine mammal is found by the Navy that is not in the vicinity of, or during or shortly after, MFAS, HFAS, or underwater explosive detonations, the Navy will report the same information as listed above as soon as operationally feasible and

clearance procedures allow.

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

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

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

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

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

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(c) The Navy must conduct all monitoring and/or research required under the Letter of Authorization, including abiding by the annual MIRC Monitoring Plan, which may be found athttp://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications.

(d) Report on Monitoring required in paragraph (c) of this section – The Navy shall submit a annual report on April 15 of each year covered by this LOA (e.g., 2013, 2014, and 2015) describing the implementation and results of the monitoring required in paragraph (d) of this section. Required submission date will be identified each year in the LOA. Navy will standardize data collection methods across ranges to allow for comparison in different geographic locations.

(e) Sonar Exercise Notification - The Navy shall submit to the NMFS Office of Protected Resources either an electronic (preferably) or verbal report within fifteen calendar days after the completion of any Major Training Exercise for Reporting (MTER) indicating:

(1) Location of the exercise;
(2) Beginning and end dates of the exercise; and
(3) Type of exercise.

(f) Annual MIRC Report - The Navy will submit an Annual Exercise MIRC Report on April 15 of each year covered by this LOA (e.g., 2013, 2014, and 2015). This report shall contain the subsections and information indicated below.

(1) MFAS/HFAS Major Training Exercises - This section shall contain the following information for the following Coordinated and Strike Group exercises, which for simplicity will be referred to as MTERs: Joint Multi-strike Group Exercises; Joint Expeditionary Exercises; and Marine Air Ground Task Force MIRC:

(i) Exercise Information (for each MTER):

(A) Exercise designator;

(B) Date that exercise began and ended;
(C) Location;
(D) Number and types of active sources used in the exercise;
(E) Number and types of passive acoustic sources used in exercise;
(F) Number and types of vessels, aircraft, etc., participating in exercise;
(G) Total hours of observation by watchstanders;
(H) Total hours of all active sonar source operation;
(I) Total hours of each active sonar source (along with explanation of how hours are calculated for sources typically quantified in alternate way (buoys, torpedoes, etc.)); and
(J) Wave height (high, low, and average during exercise).

(ii) Individual marine mammal sighting info (for each sighting in each MTER):
(A) Location of sighting;
(B) Species (if not possible – indication of whale/dolphin/pinniped);
(C) Number of individuals;
(D) Calves observed (y/n);
(E) Initial Detection Sensor;
(F) Indication of specific type of platform observation made from (including, for example, what type of surface vessel, i.e., FFG, DDG, or CG);
(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 <200yd, 200-500yd, 500-1000yd, 1000-2000yd, or >2000yd from sonar source in (x) 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 source in use (x) 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); and
(N) Observed behavior – Watchstanders 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.).

(iii) An evaluation (based on data gathered during all of the MTERs) of the effectiveness of mitigation measures designed to avoid exposing marine mammals to MFAS. This evaluation shall identify the specific observations that

support any conclusions the Navy reaches about the effectiveness of the mitigation.

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

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

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

(3) Sinking Exercises (SINKEXs) - This section shall include the following information for each SINKEX completed that year:

(i) Exercise Info:

(A) Location;
(B) Date and time exercise began and ended;
(C) Total hours of observation by watchstanders before, during, and after exercise;
(D) Total number and types of rounds expended / explosives detonated;
(E) Number and types of passive acoustic sources used in exercise;
(F) Total hours of passive acoustic search time;
(G) Number and types of vessels, aircraft, etc., participating in exercise;
(H) Wave height in feet (high, low and average during exercise); and
(I) Narrative description of sensors and platforms utilized for marine mammal detection and timeline illustrating how marine mammal detection was conducted.

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

(A) Location of sighting;

(B) Species (if not possible – indication of whale/dolphin/pinniped);

(C) Number of individuals;

(D) Calves observed (y/n);

(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) – use four categories to define distance:

(1) the modeled injury threshold radius for the largest explosive used in that exercise type in that OPAREA (TBD m for SINKEX in MIRC);

(2) the required exclusion zone (1 nm for SINKEX in MIRC);

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

(4) greater than the required observed distance. For example, in this case, the observer shall indicate if < 426 m, from 426 m – 1 nm, from 1 nm – 2 nm, and > 2 nm.

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

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

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

(4) Improved Extended Echo-Ranging System (IEER)/Advanced Extended Echo-Ranging (AEER) Summary:

(i) Total number of IEER and AEER events conducted in MIRC;
(ii) Total expended/detonated rounds (buoys); and
(iii) Total number of self-scuttled IEER rounds.

(5) Explosives Summary - The Navy is in the process of improving the methods used to track explosive use to provide increased granularity. To the extent practicable,

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

(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 MIRC; and

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

(g) MIRC 5-Yr Comprehensive Report - The Navy shall submit to NMFS a draft report that analyzes and summarizes all of the multi-year marine mammal information gathered during ASW and explosive exercises for which annual reports are required (Annual MIRC Exercise Reports and MIRC Monitoring Plan Reports). This report will be submitted at the end of the fourth year of the rule (November 2014), covering activities that have occurred through July 15, 2014.

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

(i) The Navy shall comply with the Integrated Comprehensive Monitoring Program (ICMP) Plan and continue to improve the program in consultation with NMFS.

8. Prohibitions - Notwithstanding takings contemplated in § 218.102 and authorized by a Letter of Authorization issued under §§ 216.106 and 218.107, no person in connection with the activities described in § 218.100 may violate, or fail to comply with, the terms, conditions, and requirements of these regulations or a Letter of Authorization issued under §§ 216.106 and 218.107.

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 L of the regulations, or a document containing the equivalent requirements specified in this Authorization or 50 CFR Subpart L, 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).

11. The Holder of this Authorization and any person operating under his authority is required to comply with the Terms and Conditions of the Incidental Take Statement corresponding to NMFS' Biological Opinion as they pertain to listed marine mammals.

JUL 3 1 2012

Helen M. Golde, Acting Director
Office of Protected Resources
National Marine Fisheries Service

Date