

DEPARTMENT OF COMMERCE**National Oceanic and Atmospheric Administration****50 CFR Part 216**

[Docket No. 060629183-6289-02; I.D. 022106A]

RIN 0648-AT39

Taking and Importing Marine Mammals; Taking Marine Mammals Incidental to Conducting Precision Strike Weapons Testing and Training by Eglin Air Force Base in the Gulf of Mexico

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

ACTION: Final rule.

SUMMARY: NMFS, upon application from Eglin Air Force Base (Eglin AFB), is issuing regulations to govern the unintentional takings of marine mammals incidental to conducting Precision Strike Weapons (PSW) testing and training in the Gulf of Mexico (GOM). Issuance of regulations and Letters of Authorization (LOAs) under these regulations governing the unintentional incidental takes of marine mammals in connection with particular activities is required by the Marine Mammal Protection Act (MMPA) when the Secretary of Commerce (Secretary), after notice and opportunity for comment, finds, as here, that such takes will have a negligible impact on the species and stocks of marine mammals and will not have an unmitigable adverse impact on the availability of them for subsistence uses. These regulations do not authorize Eglin AFB's PSW activities as such authorization is not within the jurisdiction of the Secretary. Rather, NMFS' regulations together with a Letter of Authorization (LOA) authorize the unintentional incidental take of marine mammals in connection with this activity and prescribe methods of taking and other means of effecting the least practicable adverse impact on marine mammal species and their habitat, and on the availability of the species for subsistence uses.

DATES: Effective from December 26, 2006 through December 27, 2011.

ADDRESSES: A copy of the application containing a list of references used in this document may be obtained by writing to Mr. P. Michael Payne, Chief, Permits, Conservation and Education Division, Office of Protected Resources, National Marine Fisheries Service, 1315

East-West Highway, Silver Spring, MD 20910-3225, by telephoning the contact listed under **FOR FURTHER INFORMATION CONTACT**, or at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>

Documents cited in this rule may also be viewed, by appointment, during regular business hours at the above address or at the Department of the Air Force, AAC/EMSN, Natural Resources Branch, 501 DeLeon St., Suite 101, Eglin AFB, FL 32542-5133.

FOR FURTHER INFORMATION CONTACT: Kenneth R. Hollingshead, NMFS, 301-713-2289, ext 128.

SUPPLEMENTARY INFORMATION:**Background**

Section 101(a)(5)(A) of the Marine Mammal Protection Act (16 U.S.C. 1361 *et seq.*) (MMPA) directs the Secretary of Commerce (Secretary) to allow, upon request, the incidental, but not intentional taking of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and regulations are issued.

An authorization may be granted for periods of 5 years or less if the Secretary finds that the taking will have a negligible impact on the species or stock(s) and will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses, and if regulations are prescribed setting forth the permissible methods of taking and the requirements pertaining to the mitigation, monitoring and reporting of such taking.

NMFS has defined "negligible impact" in 50 CFR 216.103 as "an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival." With respect to military readiness activities, the MMPA defines "harassment" as:

(i) any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild [Level A harassment]; or (ii) any act that disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered [Level B harassment].

Summary of Request

On February 4, 2004, Eglin AFB submitted a request for a 1-year Incidental Harassment Authorization (IHA) under MMPA

section 101(a)(5)(D) and for an LOA (to take effect after the expiration of the IHA), for the incidental, but not intentional taking (in the form of noise-related harassment), of marine mammals incidental to PSW testing within the Eglin Gulf Test and Training Range (EGTTR) for the next five years, as authorized by section 101(a)(5) of the MMPA. The EGTTR is described as the airspace over the GOM that is controlled by Eglin AFB, and is also referred to as the "Eglin Water Range."

PSW missions involve air-to-surface impacts of two weapons, the Joint Air-to-Surface Stand-off Missile (JASSM) AGM-158 A and B and the small-diameter bomb (SDB) (GBU-39/B), that result in underwater detonations of up to approximately 300 lbs (136 kg) and 96 lbs (43.5 kg, double SDB) of net explosive weight (NEW), respectively.

The JASSM is a precision cruise missile designed for launch from outside area defenses to kill hard, medium-hard, soft, and area-type targets. The JASSM has a range of more than 200 nautical miles (nm) (370 kilometers (km)) and carries a 1,000-lb (453.6 kg) warhead. The JASSM has approximately 300 lbs (136 kg) of TNT equivalent NEW. The explosive used is AFX-757, a type of plastic bonded explosive (PBX) formulation with higher blast characteristics and less sensitivity to many physical effects that could trigger unwanted explosions. The JASSM would be launched from an aircraft at altitudes greater than 25,000 ft (7620 m). The JASSM would cruise at altitudes greater than 12,000 ft (3658 m) for the majority of the flight profile until it makes the terminal maneuver toward the target. The JASSM exercise involves a maximum of two live shots (single) and 4 inert shots (single) each year for the next 5 years. One live shot will detonate in water and one will detonate in air. Detonation of the JASSM would occur under one of three scenarios: (1) Detonation upon impact with the target (about 5 ft (1.5 m) above the GOM surface); (2) detonation upon impact with a barge target at the surface of the GOM; or (3) detonation at 120 milliseconds after contact with the surface of the GOM.

The SDB is a glide bomb. Because of its capabilities, the SDB system is an important element of the Air Force's Global Strike Task Force. The SDB has a range of up to 50 nm (92.6 km) and carries a 217.4-lb (98.6 kg) warhead. The SDB has approximately 48 lbs (21.7 kg) of TNT equivalent NEW. The explosive used is AFX-757. Launch from an aircraft would occur at altitudes greater than 15,000 ft (4572 m). The SDB would commence a non-powered glide

to the intended target. The SDB exercise involves a maximum of six live shots a year, with two of the shots occurring simultaneously, and a maximum of 12 inert shots with up to two occurring simultaneously. Detonation of the SDBs would occur under one of two scenarios: (1) Detonation of one or two bombs upon impact with the target (about 5 ft (1.5 m) above the GOM surface), or (2) a height of burst (HOB) test: detonation of one or two bombs 10 to 25 ft (3 to 7.6 m) above the GOM surface. No underwater detonations of the SDB are planned.

The JASSM and SDBs would be launched from B-1, B-2, B-52, F-15, F-16, F-18, or F-117 aircraft. Chase aircraft would include F-15, F-16, and T-38 aircraft. These aircraft would follow the test items during captive carry and free flight but would not follow either item below a predetermined altitude as directed by Flight Safety. Other assets on site may include an E-9 turboprop aircraft or MH-60/53 helicopters circling around the target location. Tanker aircraft including KC-10s and KC-135s would also be used. A second unmanned barge may also be on location to hold instrumentation. Targets include a platform of five containers strapped, braced, and welded together to form a single structure and a hopper barge, typical for transportation of grain. The Eglin AFB action would occur in the northern GOM in the EGTTR. Targets would be located in water less than 200 ft (61 m) deep and from 15 to 24 nm (27.8 to 44.5 km) offshore, south of Santa Rosa Island and south of Cape San Blas Site D3-A.

On November 24, 2003, the National Defense Authorization Act for Fiscal Year 2004 (NDAA; Public Law 108-136) became law. Included in the NDAA were amendments to Section 101(a)(5) of the MMPA that apply where a "military readiness activity" is concerned. The term "military readiness activity" is defined in Public Law 107-314 (16 U.S.C. 703 note) to include all training and operations of the Armed Forces that relate to combat; and the adequate and realistic testing of military equipment, vehicles, weapons and sensors for proper operation and suitability for combat use. Therefore, pursuant to section 315(b) of the NDAA, NMFS has determined that the test and training exercises proposed by Eglin AFB are considered to be a "military readiness activity."

Comments and Responses

On August 3, 2006 (71 FR 44001), NMFS published a proposed rule to authorize the taking of marine mammals

incidental to Eglin AFB's PSW activities. During the 30-day public comment period, comments were received from the Marine Mammal Commission (Commission), the Humane Society of the United States (HSUS) and a member of the public.

Comment 1: The member of the public is opposed "to the killing and murder of marine mammals for the testing of weapons." This person recommends that these weapons be tested in other places which have already been reduced to rubble by U.S. weapons.

Response: Section 101(a)(5)(A) of the MMPA authorizes the incidental, but not intentional, harassment, injury, or mortality of marine mammals provided the taking is having a negligible impact on affected species and stocks of marine mammals, is at the lowest level practicable (i.e., through mitigation), and monitoring and reporting of take is conducted. As provided in this document, Eglin AFB has shown that few or no marine mammals will be seriously injured or killed as a result of Eglin AFB's PSW activities. As NMFS has made a determination that this activity will have a negligible impact on marine mammals, promulgation of these regulations and issuance of the LOA is warranted. In addition, NMFS believes that implementation of the monitoring and mitigation measures required in the regulations and subsequent LOAs will be effective in minimizing or avoiding serious injury or mortality.

Comment 2: The HSUS noted that it would be extremely helpful if the **Federal Register** notice had contained a map indicating the location of the Eglin EGTTR.

Response: NMFS posted Eglin AFB's application on its web site (see **ADDRESSES**) and noted in the **Federal Register** how that document could be accessed. Figure 1-1 of Eglin's application is a map indicating the target areas proposed for PSW activities.

Comment 3: The HSUS does not understand why sperm whales are not included for potential taking since the range map for the species in the stock assessment report overlaps with that of both pygmy sperm whales and dwarf sperm whales. The NMFS needs to reconsider impacts to this endangered species.

Response: Sperm whales in the GOM are located in waters of the continental slope, not in shallow continental shelf waters. For Eglin AFB, the PSW targets would be located in water less than 200 ft (61 m) deep and from 15 to 24 nm (27.8 to 44.5 km) offshore. As a result, sperm whales will not be affected by PSW activities.

Comment 4: The HSUS notes that the FR notice does not specify the stock(s) of bottlenose dolphins that may be impacted by the PSW activity. The HSUS notes that given the location of the activity in water less than 200 ft (61 m) deep and from 15 to 24 nm (27.8 to 44.5 km) offshore, the stocks most likely affected are the Northern Gulf of Mexico Continental Shelf Stock and the Northern Gulf of Mexico Coastal Stock. Both stocks should be considered likely to be impacted.

Response: In the proposed **Federal Register** notice for Eglin's PSW activities, NMFS recommended readers reference Waring *et al.* (2006) for information on potentially impacted marine mammal stocks. Waring *et al.* (2006) notes that the GOM Continental Shelf Stock may overlap with the GOM coastal stocks and the GOM oceanic stock in some areas and may be genetically indistinguishable from those stocks. To develop an average abundance estimate, data were collected from 1998 to 2001, and survey effort was pooled across all years. The best abundance estimate of bottlenose dolphins for continental shelf waters was 25,320 (CV=0.26) (Fulling *et al.* 2003). This estimate is considered the best estimate because these surveys have the most complete coverage of the species' habitat (Waring *et al.*, 2006). The minimum population (p_{min}) for the northern GOM Continental Shelf stock is 20,414 bottlenose dolphins. Based on assumptions made by Waring *et al.* (2006), NMFS estimates that the potential biological removal (PBR) for the northern GOM Continental Shelf bottlenose dolphin stock is 204. Although no mortality has been observed in commercial fishing, this stock may be subject to incidental take resulting in serious injury or mortality (Waring *et al.*, 2006).

The northern GOM coastal stock has been divided into 3 stocks: eastern, northern and western. This stock is located from the shore (or bays) to the 20-m (66-ft) isobath. As the northern stock is distributed from 84° West to the Mississippi River delta, PSW activities would affect only the northern coastal stock. Portions of the coastal stocks may co-occur with the northern GOM continental shelf stock and the bay, sound and estuary stock, the 20-m (66-ft) isobath generally corresponds to survey strata. The northern stock has an estimated population abundance of 4,191 animals (CV=0.21) with a p_{min} of 3,518 (from estimates made in 1993). The PBR is unknown. A total of 1,377 bottlenose dolphins were found stranded in the northern GOM from 1999 through 2003. Of these, 73 or 5

percent showed evidence of human interactions as the cause of death (e.g., gear entanglement, mutilation, gunshot wounds).

Comment 5: The HSUS is concerned that there have been a high number of deaths of bottlenose dolphins along the Florida Panhandle (and the most heavily impacted stocks have not yet been identified). The relatively high number of bottlenose dolphin deaths that have occurred since 1990 raises a concern that not only are some of the stocks stressed, but they may even be in decline. Adding additional impacts from acoustic or physical trauma is something the stocks can ill afford.

Response: Waring *et al.* (2006) describe several potential causes for impacts to bottlenose dolphin stocks in the GOM. These include the potential for takes in commercial fishing, disease and shootings. However, because Eglin AFB's PSW activities will take place only a few times a year, with no serious injury or mortality expected, Eglin's activities are unlikely to add to existing mortality levels. In addition, NMFS believes that impacts to bottlenose dolphins, and other marine mammals, will be minimized or avoided through implementation of the required mitigation and monitoring requirements. As a result, NMFS does not believe that authorizing the taking of bottlenose dolphins by Level B harassment will have more than a negligible impact on the affected dolphin stocks.

Comment 6: The HSUS notes that NMFS has also considered a proposal by Eglin to conduct assault exercises that may also affect this bottlenose dolphin stock and cumulative impacts are not addressed.

Response: NMFS has made determinations of negligible impact and issued IHAs to Eglin AFB for the taking of marine mammals incidental to air-to-surface gunnery exercises (71 FR 27695, May 12, 2006), naval explosive ordnance exercises at Santa Rosa Island (70 FR 51341, August 30, 2005; 71 FR 35870, June 22, 2006) and previously for the PSW activity (70 FR 48675, August 19, 2005). Cumulative impacts from Eglin AFB's military activities on bottlenose dolphins (and other marine mammals) in addition to cumulative impacts from shipping, oil and gas exploration and production and commercial fishing on marine mammals have been addressed in several PEAs developed for Eglin AFB activities and adopted by NMFS for those IHAs mentioned above. Findings of No Significant Impact (FONSI) have been made by Eglin AFB and NMFS as a result of those environmental studies. In

contrast to the potential serious injury and mortality from commercial fishing and ship strikes, and Level B harassment from oil and gas seismic exploration, NMFS believes that the cumulative impact from Eglin AFB's PSW exercises is expected to be negligible. For Eglin AFB, cumulative impacts on marine mammals from all activities indicate that no marine mammals would be killed during a single year of activities, that 6 dolphins may be injured and 480 dolphins may be harassed annually. Additionally, NMFS anticipates that with the required mitigation measures, these numbers will be lower.

Comment 7: The Commission recommends NMFS grant the requested authorizations provided that Eglin AFB conduct all practicable monitoring and mitigation measures to afford the potentially affected marine mammal species adequate protection from serious and lethal injury.

Response: The monitoring effort for PSW is similar to that used in previous ship-shock actions wherein detonations of 10,000 lbs (4536 kg) were used without any serious injury or mortality being detected during extensive follow-up monitoring. Eglin AFB has calculated the potential for a marine mammal to be seriously injured or killed as a result of PSW activities (see Tables 2,3 and 4 later in this document). As noted, while it is unlikely that a marine mammal will be seriously injured or killed, a small potential exists that a marine mammal may be missed during the aerial and vessel monitoring program.

Comment 8: The HSUS notes that post-mission monitoring will be conducted by vessels only, which will roam the area for 2 hours. In order to determine impact from exercises, this post-exercise monitoring relies on animals floating immediately or resurfacing within a few days, if mortally wounded; and then being found by cooperating stranding networks. The HSUS notes that stranding networks do not regularly survey the coastline for carcasses and, when discovered, they are often in a state of decomposition such that the cause of death is not readily ascertained.

Response: While Eglin AFB does not routinely monitor Eglin AFB shoreline for strandings, they have a marine animal stranding program that responds to strandings when alerted by personnel. In addition, frequent offshore activity by Eglin AFB personnel will alert the network to any injured or dead marine mammals observed. However, NMFS believes that, if a marine mammal was seriously injured or killed

as a result of PSW activities, a mortality would occur very close to the detonation (see Table 1) and would be observed during the subsequent post-event monitoring. The HSUS is correct that often these animals are decomposed and the cause of death cannot be determined.

Currents and counter-currents both factor into where a marine mammal might eventually resurface if mortally wounded as a result of PSW activities and the animal sinks prior to detection. When decomposition advances, an animal that initially sank would resurface. Depending upon the amount of time between sinking and subsequent surfacing, the animal may be moved by surface and/or subsurface currents in a direction different from where one would surmise it would surface based solely on surface currents. Once the animal surfaces, wind and surface currents (which might not be the same direction) would affect where a marine mammal might eventually be located when a follow-up survey was initiated. As this could mean a very large area for accurate post-detonation surveying, this survey effort would require an aircraft. Also, a dolphin that surfaced a significant distance from the detonation site would be indistinguishable from a dolphin that died from other causes. To recover the animal for necropsy would require a support vessel. Considering the low probability of a marine mammal being seriously injured or killed as a result of Eglin AFB's PSW activities, the high cost of large scale aerial and vessel surveys, and the low likelihood that a link between the cause of the dolphin's death and PSW activities could be made after several days underwater, NMFS does not believe lengthy post-event monitoring is warranted.

Comment 9: The HSUS states that because this area has recently been subject to mortality events, carcasses seen along the beaches may not necessarily be linked to the Air Force activity unless necropsies are done. This is something that will not be possible for most carcasses. Thus, even if the cause of death is related to Air Force activities, it may remain undetected. However, the FR notice states that death is unlikely because of the precautionary nature of the mitigation measures. The HSUS does not agree that the mitigation measures are precautionary.

Response: While the stranding network monitoring the beaches of the Florida Panhandle or Eglin personnel monitoring Eglin AFB beaches may recover a deceased marine mammal, it is true that cause-and-effect may be difficult after an animal spends a significant time at sea. However,

animals sighted during the 2-hour post-event monitoring would be available for possible rescue and rehabilitation or euthanasia and/or necropsy by a qualified individual.

NMFS believes that the mitigation measures, which are designed to detect marine mammals prior to detonation and preventing subsequent potential injury or mortality are the best that can be successfully implemented in view of the need to also ensure the safety of the monitoring teams (see text for details). However, post-event activities, such as determining a cause of mortality are considered monitoring measures and do not affect the actual taking of marine mammals.

Comment 10: The HSUS notes that the **Federal Register** notice states there will be a buffer zone of 1.0 nm (1.8 km) established outside the zone of influence, which is stated to be 2.0 nm (3.7 km) for the JASSM or 5–10 nm (9.3–18.5 km) for the SDB with a buffer zone of 2.5 - 5 nm (4.6–9.3 km). However, the **Federal Register** notice acknowledges that marine mammal mitigation effectiveness may be reduced for some missions due to mandatory safety buffers which limit the time and type of marine mammal mitigation. This is not acceptable. Why bother having a mitigation plan if part of the plan is to obviate it if it seems impractical?

Response: Because visual observation is the primary mitigation technique for PSW tests, mitigation effectiveness is affected by the distance of observers from the target. Protected species observers will survey from inside the Zone of Influence (ZOI) until 1 to 1.5 hours before weapon launch, depending on the specific type of test. At this time, observers will be required to move outside the ZOI/safety zone. This is a mandatory requirement directed by Air Force safety policy, and applies to Air Force personnel as well as civilian contracted observers. Both the JASSM and SDB are precision-guided munitions. However, due in part to the long distance from which these weapons are potentially launched (40 to 200 nautical miles), slight errors in flight trajectory, though not expected, could jeopardize the life of anyone within the safety zone. In addition to Air Force safety policy, the MMPA as amended by the NDAA requires the Secretary of Commerce to consider personnel safety when making incidental take determinations for military readiness activities.

Aerial observers will leave the area 1 to 1.5 hours before weapon launch. However, ship-based observers will continue to monitor for protected species from the edge of the safety zone,

up to the time of impact. The safety zone is larger for the SDB due to differences in flight characteristics. Therefore, observers may be farther from the target during SDB tests than during JASSM tests.

Comment 11: The HSUS notes that there are two types of monitoring: aerial and shipboard. Aerial monitoring will occur using observers experienced in marine mammal surveying and familiar with the species that may occur in the area. It is not stated whether these personnel will be NMFS staff or how they might be “experienced” in survey methodology and marine mammal species identification, especially in light of the fact that identifying pygmy from dwarf sperm whales is difficult even for NMFS science center personnel.

Response: NMFS does not provide marine mammal scientists to Eglin AFB for this, or any other project. Eglin AFB uses biologically-trained marine mammal observers, who are either employees or contract personnel, that have been approved in advance by NMFS. This is standard practice for all authorizations under section 101(a)(5) of the MMPA. It should be recognized that using NMFS scientists would reduce our agency’s ability to conduct important marine mammal research. As a result, private companies have been established to train and provide trained biologists for activities such as this one.

Next, it is widely recognized that it is difficult to identify some marine mammal species, generally referred to as being cryptic species. Usually, unidentified species are listed as such and then, later, tallied based on known stock proportions for the geographic area. However, when marine mammal observers are monitoring a safety or buffer zone, it is less critical that they be able to identify an animal by species; rather it is more important at the time that they are able to actually see the marine mammal.

Comment 12: The HSUS notes that the **Federal Register** notice does not provide information on the type of aircraft used although the notice discusses turboprop craft, tanker aircraft and helicopters being involved in the exercise, none of which is well suited for this purpose.

Response: The application notes that Eglin AFB plans to use helicopters for monitoring marine mammal safety zones for this activity. Helicopters are an effective means to monitor the relatively small safety zones for PSW activities. Alternatively, Eglin AFB will be authorized to use types of aircraft that are often used by marine mammal observers. While other aircraft (turboprop and tankers) may be used

during the PSW exercise, they will not be used to monitor safety zones.

Comment 13: The HSUS notes that with regard to shipboard monitoring, the **Federal Register** notice states that it will be from the highest point possible on the mission ship. The notice discusses barges that will be on-site. The highest point possible, may or may not be effective depending upon the size of the vessel involved but that is not specified and should be.

Response: As barges are the target for PSW detonations, the target barge and nearby instrumentation barge (if one is used) are not an appropriate vessel for marine mammal observations. As a result of this comment, NMFS has clarified in the regulations that the marine mammal observation platform must provide observers a platform to see a major portion of the safety zone. It must also be mobile in order to observe the largest area possible. However, as this rule will be effective for a 5-year period, specifying the exact type of vessel Eglin AFB will use for the vessel monitoring program is not practical since it could preclude use of larger, more effective platforms.

Comment 14: The HSUS notes the **Federal Register** notice states that the onboard observers will be familiar with the marine life of the area. This is not sufficiently specific to be reassuring. The small size of the marine mammals and the long dive time of sperm whales and dwarf and pygmy sperm whales makes them particularly difficult to observe, as is referenced throughout stock assessments and published literature.

Response: As mentioned previously, sperm whales are unlikely to be encountered in the shallow, shelf waters off Eglin AFB. In this document, NMFS clarifies that Eglin AFB must use biologists trained in the at-sea detection of marine mammals.

Comment 15: The HSUS believes that the mitigation measures should also include acoustic monitoring techniques.

Response: NMFS does not believe that additional mitigation is warranted for this activity. Passive acoustic monitoring (PAM), which is designed to detect vocalizing marine mammals, can be effective when safety zones are significantly large so that visual monitoring effectiveness might be compromised. In this case, Eglin AFB has implemented an aerial monitoring program that is believed to be more effective than using PAM because of increased visibility of marine mammals in the shallow water areas. Additionally, when using PAM in shallow water areas with relatively small safety zones it is difficult to determine whether the

marine mammal is actually within the safety zone due to reflection and refraction of the acoustic signal.

Comment 16: The HSUS believes that extended monitoring (of the exercise) by skilled observers is critical in highly mobile species which often have long dive times.

Response: NMFS agrees that skilled marine mammal observers are critical for detecting marine mammals within a safety zone and delaying detonations (in this case the launch) until the marine mammal(s) depart from the safety zone. The length of time for marine mammal observations depends on the type and weight of the explosive which influences the size of the safety zone, as described later in this document. These observation times are sufficient to ensure that a marine mammal is detected prior to detonation.

Comment 17: The Commission recommends that NMFS cooperate with Eglin AFB to develop a long-term strategy to monitor the abundance and distribution of marine mammals in the subject activity area to ensure that the proposed activity is not having any population-level effects on marine mammals over the 5 years that the regulations are in effect. The Commission would be pleased to assist with the development of such a strategy.

Response: While NMFS and Eglin would be pleased to discuss such a monitoring strategy with the Commission, it is unclear whether a monitoring program could be designed that would be able to make a determination that the injury of approximately 6 dolphins and an additional 480 that may be harassed by all Eglin AFB activities was having population level impacts. As NMFS has been unable to identify mortality levels in the GOM from commercial fishing, shipping, and pollution (Waring *et al.*, 2006), it is unlikely that Level B harassment by Eglin's military-readiness activities can be empirically determined to be more than negligible, either individually or cumulatively. Finally, while monitoring the impacts that an activity might have on marine mammal stocks is the responsibility of an LOA applicant, undertaking studies on the distribution and abundance of these stocks is the responsibility of NMFS and other agencies. To the extent that these studies are underfunded does not mean that that responsibility should be transferred to LOA holders.

Description of Marine Mammals Affected by the Activity

There are 29 species of marine mammals documented as occurring in Federal waters of the GOM. Information

on those species that may be impacted by this activity are discussed in the Eglin AFB application and Eglin AFB's Final PEA. A summary of that information is provided in this section.

General information on these marine mammal species can be found in Wursig *et al.* (2000) and in the NMFS Stock Assessment Report (Waring, 2006). The NMFS Stock Assessment Report is available at: <http://www.nefsc.noaa.gov/nefsc/publications/tm/tm194/>.

Marine mammal species that potentially occur within the EGTTR include several species of cetaceans and one sirenian, the West Indian manatee. During winter months, manatee distribution in the GOM is generally confined to southern Florida. During summer months, a few may migrate north as far as Louisiana. However, manatees primarily inhabit coastal and inshore waters and rarely venture offshore. PSW missions would be conducted offshore. Therefore, effects on manatees are considered very unlikely.

Cetacean abundance estimates for the study area are derived from GulfCet II (Davis *et al.*, 2000) aerial surveys of the continental shelf within the Minerals Management Service Eastern Planning Area, an area of 70,470 km². Texas A&M University and NMFS conducted these surveys from 1996 to 1998. Abundance and density data from the aerial survey portion of the survey best reflect the occurrence of cetaceans within the EGTTR, given that the survey area overlaps approximately one-third of the EGTTR and nearly the entire continental shelf region of the EGTTR where military activity is highest. The GulfCet II aerial surveys identified different density estimates of marine mammals for the shelf and slope geographic locations. Only the shelf data is used because PSW missions will only be conducted on the shelf.

In order to maximize species conservation and protection, the species density estimate data were adjusted to reflect more realistic encounters of these animals in their natural environment. Refer to "*Conservative Estimates of Marine Mammal Densities*" in this document and Eglin AFB's application for more information on density estimates. The four marine mammal species observed during GulfCet II aerial surveys on the shelf that have the potential to be present in the PSW test area and thereby affected are: Atlantic bottlenose dolphins (*Tursiops truncatus*), Atlantic spotted dolphins (*Stenella frontalis*), dwarf sperm whales (*Kogia simus*), and pygmy sperm whales (*Kogia breviceps*). Brief descriptions of these species were provided in earlier

Federal Register notices (69 FR 21816, April 22, 2004; 70 FR 48675, August 19, 2005) and are not repeated here.

Impacts to Marine Mammals

Potential impacts to marine mammals from the detonation of the PSWs and SDBs include both mortality and serious injury, as well as Level B harassment in the form of a temporary shift in hearing sensitivity (called temporary threshold shift (TTS) and behavioral responses due to TTS. Although unlikely due to the extensive mitigation measures proposed herein, marine mammals have the potential to be killed or injured as a result of a blast due to the response of air cavities in the body, such as the lungs and bubbles in the intestines. Any effects would likely be most severe in near-surface waters where the reflected shock wave creates a region of negative pressure called "cavitation." This is a region of near total physical trauma within which no animals would be expected to survive. A second criterion used by NMFS for categorizing taking by mortality is the onset of extensive lung hemorrhage. Extensive lung hemorrhage is considered to be debilitating and thereby potentially fatal. Suffocation caused by lung hemorrhage would likely be the major cause of any marine mammal death from underwater shock waves.

For the acoustic analysis in this document, the exploding charge is characterized as a point source. The impact thresholds used for marine mammals relate to potential effects on hearing from underwater noise from detonations. For the explosives in question, actual detonation heights would range from 0 to 25 ft (7.6 m) above the water surface. Detonation depths would range from 0 to 80 ft (73.2 m) below the surface. To bracket the range of possibilities, detonation scenarios just above and below the surface were used by Eglin AFB to analyze bombs set to detonate on contact with the target barge. Potentially, the barge may interact with the propagation of noise into the water. However, barge effects on the propagation of noise into the water column cannot be determined without in-water noise monitoring at the time of detonation.

Potential exposure of a sensitive species to detonation noise could theoretically occur at the surface or at any number of depths with differing consequences. As a conservative measure, a mid-depth scenario was selected by Eglin AFB to ensure the greatest direct path for the harassment ranges, and to give the greatest impact range for the injury thresholds.

Explosive Criteria and Thresholds for Impact of Noise on Marine Mammals

Criteria and thresholds that are the basis of the analysis of PSW noise impacts to cetaceans were initially used in U.S. Navy's environmental impact statements (EISs) for ship shock trials of the SEAWOLF submarine and the USS WINSTON S. CHURCHILL vessel (DON, 1998; DON, 2001) and accepted by NMFS as representing the best science available (see 66 FR 22450, May 4, 2001). With a single exception mentioned in this document, NMFS believes that the criteria developed for the shock trials represent the best science available. The following sections summarize the information contained in those actions.

Criteria and Thresholds: Lethality

The criterion for mortality for marine mammals used in the CHURCHILL Final EIS is 'onset of severe lung injury.' This is conservative in that it corresponds to a 1 percent chance of mortal injury, and yet any animal experiencing onset severe lung injury is counted as a lethal take. The threshold is stated in terms of the Goertner (1982) modified positive impulse with value "indexed to 31 psi-ms." Since the Goertner approach depends on propagation, source/animal depths, and animal mass in a complex way, the actual impulse value corresponding to the 31-psi-ms index is a complicated calculation. The acoustic threshold is derived from:

$$1\% = 42.9 (M/34)^{1/3} \text{ psi-ms,}$$

where M is animal mass in kg. Again, to be conservative, CHURCHILL used the mass of a calf dolphin (at 12.2 kg), so that the threshold index is 30.5 psi-ms.

Criteria and Thresholds: Injury (Level A Harassment)

Non-lethal injurious impacts are defined in this document as eardrum rupture (i.e., tympanic-membrane (TM) rupture) and the onset of slight lung injury. These are considered indicative of the onset of injury. The threshold for TM rupture corresponds to a 50 percent rate of rupture (i.e., 50 percent of animals exposed to the level are expected to suffer TM rupture); this is stated in terms of an EFD value of 1.17 in-lb/in², which is about 205 dB re 1 microPa²-s. (Note: EFD is the time integral of the squared pressure divided by the impedance in values of dB re 1 microPa²-s.) This recognizes that TM rupture is not necessarily a life-threatening injury, but is a useful index of possible injury that is well-correlated with measures of permanent hearing impairment (e.g., Ketten (1998)

indicates a 30 percent incidence of permanent threshold shift (PTS) at the same threshold).

Criteria and Thresholds: Non-injurious Impacts (Level B Harassment)

Marine mammals may also be harassed due to noise from PSW missions involving high explosive detonations in the EGTTR. The CHURCHILL criterion for non-injurious harassment from detonations, as established through NMFS' incidental take rulemaking (see 66 FR 22450, May 4, 2001), is temporary (auditory) threshold shift (TTS), which is a slight, recoverable loss of hearing sensitivity (DoN, 2001). The criterion for TTS used in this document is 182 dB re 1 microPa²-s maximum EFD level in any 1/3-octave band at frequencies above 100 Hz for all toothed whales (e.g., sperm whales, beaked whales, dolphins). (Note: 1/3-octave band is the EFD in a 1/3-octave frequency band; the 1/3 octave selected is the hearing range at which the affected species' hearing is believed to be most sensitive.) A 1/3-octave band above 10 Hz is used for impact assessments on all baleen whales, but those species do not inhabit the affected environment of this project.

The CHURCHILL rulemaking also established a second criterion for estimating TTS threshold: 12 psi. The appropriate application of this second TTS criterion is currently under debate, as this 12-psi criterion was originally established for estimating the impact of a 10,000-lb (4536-kg) explosive to be employed for the Navy's shock trial. It was introduced to provide a more conservative safety zone for TTS when the explosive or the animal approaches the sea surface (for which cases the explosive energy is reduced but the peak pressure is not).

For large explosives (2000 to 10,000 lbs (907-4536 kg)) and the explosives and/or the mammals not too close to the surface, the TTS impact zones for these two TTS criteria are approximately the same. However, for small detonations, some acousticians contend the ranges for the two TTS thresholds may be quite different, with ranges for the peak pressure threshold several times greater than those for energy. In its application, Eglin AFB endorsed an approach, currently being developed by the Navy, for appropriately "scaling" the peak pressure threshold, in order to more accurately estimate TTS for small shots while preserving the safety feature provided by the peak pressure threshold. As such, in its application, Eglin AFB requested the energy-based criterion for TTS, 182 dB re 1 microPa²-s (maximum EFD level in any 1/3-

octave band), be used alone to conservatively estimate the zone in which non-injurious (Level B) harassment of marine mammals may occur. NMFS acousticians have reviewed the scientific basis for this proposal and agree, in part, with the statements made by Eglin AFB that the pressure criterion of 12 psi is not fully supportable for small charges or when either the charge or the recipient are at the surface. The model used in CHURCHILL assumed the detonation occurred in deep water with the charge placed below 318 ft (100 m) in depth, and that the bottom depth is at least 20 times the detonation depth. In contrast, in PSW missions, both the detonation and the recipient will be near the surface in relatively shallow water. Therefore, although this issue remains under review by NMFS and the Navy for future Navy actions involving small net weight explosives, as an interim criterion for this rule and LOAs, NMFS is adopting the experimental findings of Finneran *et al.* (2002) that TTS can be induced at a pressure level of 23 psi (at least in belugas). As explained here, this is considered conservative since a 23-psi pressure level was below the level that induced TTS in bottlenose dolphins.

Finneran *et al.* (2000; as described in Finneran *et al.* (2002)) conducted a study designed to measure masked TTS (MTTS) in bottlenose dolphins and belugas exposed to single underwater impulses. This study used an "explosion simulator" (ES) to generate impulsive sounds with pressure waveforms resembling those produced by distant underwater explosions. No substantial (i.e., 6 dB or larger) threshold shifts were observed in any of the subjects (two bottlenose dolphins and 1 beluga) at the highest received level produced by the ES: approximately 70 kPa (10 psi) peak pressure, 221 dB re re 1 micro Pa peak-to-peak (pk-pk) pressure, and 179 dB re 1 microPa²-s total EFD. In Finneran *et al.* (2002), a watergun was substituted for the ES because it is capable of producing impulses with higher peak pressures and total energy fluxes than the pressure waveforms produced using the ES. It was also preferable to other seismic sources because its impulses contain more energy at higher frequencies, where odontocete hearing thresholds are relatively low (i.e., more sensitive). Hearing thresholds were measured at 0.4, 4 and 30 kHz. MTTSs of 7 and 6 dB were observed in the beluga at 0.4 and 30 kHz, respectively, approximately 2 minutes following exposure to single impulses with peak

pressures of 160 kPa (23 psi), pk-pk pressures of 226 dB re 1 microPa, and total EFD of 186 dB re 1 microPa²-s. Thresholds returned to within 2 dB of the pre-exposure value approximately 4 minutes post exposure. No MTTs was observed in the single bottlenose dolphin tested at the highest exposure conditions: peak pressure of 207 kPa (30

psi), 228 dB re 1 microPa pk-pk pressure, and 188 dB re 1 microPa²-s total energy flux. Therefore, until more scientific information is obtained, NMFS has determined that the pressure criterion for small explosions can be amended from 12 psi to 23 psi. At this time, NMFS believes that setting the pressure metric of the dual explosive

criteria at 23 psi is conservative, while setting the pressure metric at a higher level has not been scientifically validated at this time. Table 1 illustrates estimated zones of impact for potential mortality (31 psi-ms), Level A harassment (injury; 205 dB EFDL) and Level B harassment (TTS; 182 dB EFDL/ 23 psi).

TABLE 1. ZONES OF IMPACT FOR UNDERWATER EXPLOSIONS (MID-DEPTH ANIMAL).

Ordnance	NEW (TNT in lb)	Depth or Height of Explosion (m)	Ranges for 31 psi -ms (m)	Ranges for EFDL >205 dB (m)	Ranges for 182 dB EFDL in 1/3-Octave Band/ 23 psi(m)
<i>Summer</i>					
Single SDB	48	1.5 7.6	n/a n/a	12 12	447 447
Double SDB	96	1.5 7.6	n/a n/a	16 17	550 550
Single JASSM	300	0.3 >6.1	75 320	170 550	770 2490
<i>Winter</i>					
Single SDB	48	1.5 7.6	n/a n/a	12 12	471 471
Double SDB	96	1.5 7.6	n/a n/a	16 16	594 594
Single JASSM	300	0.3 >6.1	75 320	170 590	871 3250

Criteria and Thresholds: Behavioral Modification (Sub-TTS)

No strictly sub-TTS behavioral responses (i.e., Level B harassment) are anticipated with the JASSM and SBD test activities because there are no successive detonations (the 2 SBD explosions occur almost simultaneously) which could provide causation for a behavioral disruption rising to the level of a significant alteration or abandonment of behavioral patterns without also causing TTS. Also, repetitive exposures (below TTS) to the same resident animals are highly unlikely due to the infrequent JASSM and SBD test events, the potential variability in target locations, and the continuous movement of marine mammals in the northern GOM.

Incidental Take Estimates

For Eglin AFB’s PSW exercises, three key sources of information are necessary for estimating potential take levels from noise on marine mammals: (1) The zones of influence (ZOIs) for noise exposure; (2) The number of distinct firing or test events; and (3) the density of animals that potentially reside within a ZOI.

Noise ZOIs were calculated for depth detonation scenarios of 1 ft (0.3 m) and 20 ft (6.1 m) for lethality and for harassment (both Level A and Level B). To estimate the number of potential “takes” or animals affected, the adjusted data on cetacean population information from ship and aerial surveys were applied to the various ZOIs.

Table 1 in this document gives the estimated ZOI ranges for various explosive weights for summer and wintertime scenarios for JASSM and SDB. For example, for JASSM, the range, in winter, extends to 320 m (1050 ft), 590 m (1936 ft) and 3250 m (10663 ft) for potential mortality (31 psi-ms), injury (205 dB re 1 microPa²-s) and TTS (182 dB re 1 microPa²-s/23 psi zones), respectively. SDB scenarios are for in-air detonations at heights of 1.5 m (5 ft) and 7.6 m (25 ft) during both seasons (whichever criterion provides the largest zone is used for calculating potential impacts). JASSM detonations were modeled for near- surface (i.e., 1-ft (0.3-m) depth) and below-surface (>20-ft depth (>6.1 m)). To account for “double” (2 nearly simultaneous) events, the charge weights are added (doubled) when modeling for the

determination of energy estimates (since energy is proportional to weight). Pressure estimates only utilize the single charge weights for these estimates.

Applying the lethality (31 psi) and harassment (205 and 182 dB EFDL) impact ranges shown in Table 1 to the calculated species densities (in Table 3–1 in Eglin AFB’s application), the number of animals potentially occurring within the various ZOIs without implementation of mitigation was estimated. These results are presented in Tables 2 and 3 in this document. In summary, without any mitigation, a small possibility exists for one bottlenose and one Atlantic spotted dolphin to be exposed to blast levels sufficient to cause mortality. Additionally, less than 2 cetaceans might be exposed to noise levels sufficient to induce Level A harassment (injury) (205 dB re 1 microPa²-s) annually, and as few as 31 or as many as 52 cetaceans (depending on the season and water depth) could potentially be exposed (annually) to noise levels sufficient to induce Level B harassment in the form of TTS (182 dB re 1 microPa²-s/23 psi). While none of

these impact estimates consider the proposed mitigation measures that will be employed by Eglin AFB to minimize potential impacts to protected species, NMFS proposes to authorize Eglin AFB

to lethally take one marine mammal, 2 marine mammals by Level A harassment, and up to 53 marine mammals by Level B harassment (TTS) annually. The proposed mitigation

measures described later in this document are anticipated to reduce potential impacts to marine mammals, in both numbers and degree of severity.

TABLE 2. MARINE MAMMAL DENSITIES AND RISK ESTIMATES FOR LETHALITY (31 PSI) NOISE EXPOSURE FOR ALL IN-WATER AND IN-AIR DETONATIONS

Species	Density	Number of Animals Exposed from All In-Air and In-Water Detonations	Adjusted Number Exposed Based on 30% Mitigation Effectiveness
Summer			
Dwarf/pygmy sperm whale	0.013	0.004	0.003
Bottlenose dolphin	0.81	0.262	0.183
<i>Atlantic spotted dolphin</i>	0.677	0.219	0.153
<i>T. truncatus/S. frontalis</i>	0.053	0.017	0.012
TOTAL		0.502	0.351
Winter			
Dwarf/pygmy sperm whale	0.013	0.004	0.003
Bottlenose dolphin	0.81	0.262	0.183
<i>Atlantic spotted dolphin</i>	0.677	0.219	0.153
<i>T. truncatus/S. frontalis</i>	0.053	0.017	0.012
TOTAL		0.502	0.351

TABLE 3. MARINE MAMMAL DENSITIES AND RISK ESTIMATES FOR LEVEL A HARASSMENT (205 DB EFD 1/3-OCTAVE BAND) NOISE EXPOSURE FOR ALL IN-WATER AND IN-AIR DETONATIONS

Species	Density	Number of Animals Exposed from All In-Air and In-Water Detonations	Adjusted Number Exposed Based on 30% Mitigation Effectiveness
Summer			
Dwarf/pygmy sperm whale	0.013	0.014	0.010
Bottlenose dolphin	0.81	0.893	0.625
<i>Atlantic spotted dolphin</i>	0.677	0.747	0.523
<i>T. truncatus/S. frontalis</i>	0.053	0.058	0.041
TOTAL		1.712	1.198
Winter			
Dwarf/pygmy sperm whale	0.013	0.014	0.010
Bottlenose dolphin	0.81	0.893	0.625
<i>Atlantic spotted dolphin</i>	0.677	0.747	0.523
<i>T. truncatus/S. frontalis</i>	0.053	0.058	0.041
TOTAL		1.712	1.198

TABLE 4. MARINE MAMMAL DENSITIES AND COMBINED RISK ESTIMATES FOR THE 23 PSI PEAK PRESSURE AND THE 182 DB EFD 1/3-OCTAVE BAND LEVEL B HARASSMENT METRICS FOR ALL IN-WATER AND IN-AIR DETONATIONS

Species	Density	Number of Animals Exposed from All In-Air and In-Water Detonations	Adjusted Number Exposed Based on 30% Mitigation Effectiveness
Summer			
Dwarf/pygmy sperm whale	0.013	0.26	0.182
Bottlenose dolphin	0.81	16.209	11.3463
<i>Atlantic spotted dolphin</i>	0.677	13.547	9.4829
<i>T. truncatus/S. frontalis</i>	0.053	1.061	0.7427
TOTAL		31.076	21.7532
Winter			
Dwarf/pygmy sperm whale	0.013	0.44	0.308
Bottlenose dolphin	0.81	27.387	19.1709
<i>Atlantic spotted dolphin</i>	0.677	22.89	16.023
<i>T. truncatus/S. frontalis</i>	0.053	1.792	1.2544
TOTAL		52.509	36.7563

Mitigation and Monitoring

Eglin AFB is required to establish and survey relevant ZOI and buffer zones around a planned detonation site. The ZOI for the JASSM will be a radius of 2.0 nm (3.7 km) around the detonation site and the buffer zone will be established at a 1.0-nm (1.85-km) radius outside the safety zone. The ZOI for the SDB will be a radius of 5–10 nm (9.3–18.5 km) depending upon weight of the explosive and the buffer zone will be established at a 2.5 - 5 nm (4.6 -18.5 km) radius outside the SDB ZOI. Prior to the planned detonation, trained marine mammal observers (MMOs) aboard aircraft will survey (visually monitor) the ZOI and buffer area, a very effective method for detecting cetaceans. The aircraft/helicopters will fly approximately 500 ft (152 m) above the sea surface to allow observers to scan a large distance. In addition, trained MMOs aboard surface support vessels will conduct ship-based monitoring for non-participating vessels as well as protected species. Using 25X power “Big-eye” binoculars, surface observation would be effective out to several kilometers.

Weather that supports the ability to sight marine life is required to effectively mitigate impacts on marine life (DON, 1998). Wind, visibility, and surface conditions in the GOM are the most critical factors affecting mitigation operations. Higher winds typically increase wave height and create “white

cap” conditions, both of which limit an MMO’s ability to locate surfacing marine mammals. Therefore, PSW missions would be delayed if the Beaufort scale sea state is greater than 3.5.

Visibility is also a critical factor for flight safety issues. A minimum ceiling of 305 m (1000 ft) and visibility of 5.6 km (3 nm) is required to support mitigation and safety-of-flight concerns (DON, 2001).

Aerial Survey/Monitoring Team

Eglin AFB will complete an aerial survey before each mission and train personnel to conduct aerial surveys for protected species. The aerial survey/monitoring team would consist of two MMOs. Aircraft provide a preferable viewing platform for detection of protected marine species. Each aerial MMO will be experienced in marine mammal surveying and familiar with species that may occur in the area. Each aircraft would have a data recorder who would be responsible for relaying the location, the species if possible, the direction of movement, and the number of animals sighted. Standard line transect aerial surveying methods, as developed by NMFS (Blaylock and Hoggard, 1994; Buckland *et al.*, 1993) would be used. Aerial MMOs are expected to have above average to excellent sighting conditions at sunrise to 1.85 km (1 nm) on either side of the aircraft within the weather limitation noted previously. Observed marine

mammals would be identified to the species or the lowest possible taxonomic level and the relative position recorded. In order to ensure adequate daylight for pre- and post-mission monitoring, the mission activity would occur no earlier than 2 hours after sunrise and no later than 2 hours prior to sunset.

Shipboard Monitoring Team

Eglin AFB will conduct shipboard monitoring to reduce impacts to protected species. The monitoring would be staged from the highest point possible on a mission ship. MMOs would be familiar with the protected resources (marine mammals/sea turtles) of the area. The MMOs on the vessel must be equipped with optical equipment with sufficient magnification (e.g., 25X power “Big-Eye” binoculars, as these have been successfully used in monitoring activities from ships), which should allow the observer to sight surfacing mammals from as far as 11.6 km (6.3 nm) and provide overlapping coverage from the aerial team. A team leader would be responsible for reporting sighting locations, which would be based on bearing and distance.

The aerial and shipboard monitoring teams will have proper lines of communication to avoid communication deficiencies. The MMOs from the aerial team and operations vessel will have direct communication with the lead scientist aboard the operations vessel. The lead

scientist will be a qualified marine biologist familiar with marine mammal surveys. The lead scientist reviews the range conditions and recommends a Go/No-Go decision to the test director. The test director makes the final Go/No-Go decision.

Mitigation Procedures Plan

All zones (injury, ZOI and buffer zones) are monitored by trained MMOs. Although unexpected, any mission may be delayed or aborted due to technical reasons. Actual delay times depend on the aircraft supporting the test, test assets, and range time. Should a technical delay occur, all mitigation

procedures would continue and remain in place until either the test takes place or is canceled. The ZOI and buffer zone around JASSM missions will be monitored by shipboard observers from the highest point of the vessel. Vessels will be positioned as close to the safety zone as allowed without infringing on the missile flight corridor. The SDB has many mission profiles and does not have a flight termination system; therefore, the safety buffer zone may be quite large (5–10 nm radius (9.3–18.5 km)).

PSW mitigation must be regulated by Air Force safety parameters (pers. comm. Monteith and Nowers, 2004) to

ensure personnel safety. Therefore, in compliance with AF safety parameters and the constraints on mitigation under the MMPA, as amended by the NDAA, marine mammal mitigation effectiveness may be reduced for some missions due to mandatory safety buffers which limit the time and type of marine mammal mitigation. Even though mitigation may be limited for PSW and SDB missions, all SDB detonations are above the water surface (5–25 ft (1.5–7.6 m) above the surface) and of much smaller net explosive weight than JASSM. Table 5 describes safety zones and clearance times for JASSM and SDB missions (time in minutes).

TABLE 5. SAFETY ZONE MONITORING TIME FRAMES AND EFFECTIVENESS

	Flight Time	Safety Clearance Time for Vessels before Launch	Safety Clearance Time for Aircraft before Launch	Total Time of Vessel Safety Clearance before Detonation	Total Time of Aircraft Safety Clearance before Detonation	Human Safety Area
JASSM	:30 - 1 hr	:30	:15	1:30	1:15	2 NM
SDB	:20	:60	:30	1:20	:50	5-10 NM

Stepwise mitigation and monitoring procedures for PSW missions are outlined here.

Pre-mission Monitoring

The purposes of pre-mission monitoring are to (1) evaluate the test site for environmental suitability of the mission (e.g., relatively low numbers of marine mammals and turtles, few or no patches of *Sargassum*, etc.) and (2) verify that the ZOI is free of visually detectable marine mammals. On the morning of the test, the lead scientist would confirm that the test sites can still support the mission and that the weather is adequate to support mitigation.

Five Hours Prior to Mission Launch:

Approximately 5 hours prior to mission launch, or at daybreak, the appropriate vessel(s) would be on-site in the primary test site near the location of the earliest planned mission point. MMOs onboard the vessel will assess the suitability of the test site, based on visual observation of marine mammals, and overall environmental conditions (visibility, sea state, etc.). This information will be relayed to the lead scientist.

Three Hours Prior to Mission Launch:

Approximately three hours prior to mission launch, aerial monitoring would commence within the test site to evaluate the test site for environmental suitability. Evaluation of the entire test

site would take approximately 1 to 1.5 hours. Shipboard MMOs would monitor the "ZOI" and buffer zone, and the lead scientist would enter all marine mammals sightings, including the time of sighting and the direction of travel, into a marine animal tracking and sighting database. The aerial monitoring team would begin monitoring the ZOI and buffer zone around the target area. The shipboard monitoring team would combine with the aerial team to monitor the area immediately around the mission area including both the ZOI and buffer zone.

One to 1.5 Hours Prior to Mission Launch

As noted in Table 5 and depending upon the mission, aerial and shipboard viewers would be instructed to leave the area and remain outside the human personnel safety area (over 2 nm (3.7 km) from impact for JASSM and 5–10 nm (9.3–18.5 km) for SDB). The aerial team would report all marine animals spotted and their directions of travel to the lead scientist onboard the vessel. The shipboard monitoring team would continue searching the buffer zone for protected species as it leaves. The aircraft will leave the area and land on base. The surface vessels will stay on the outside of the human personnel safety area (5–10 nm for SDB and 2 nm for JASSM) until after detonation.

Fifteen Minutes Prior to Launch and Go/No-Go Decision Process

Visual monitoring from surface vessels outside the human personnel safety zone would continue to document any animals that may have gone undetected during the past two hours and track animals moving in the direction of the detonation area.

The lead scientist would plot and record sightings and bearing for all marine animals detected. This would depict animal sightings relative to the mission area. The lead scientist would have the authority to declare the range fouled and recommend a hold until monitoring indicates that the ZOI is and will remain clear of detectable animals.

The mission would be postponed if:

(1) Any marine mammal is visually detected within the relevant ZOI (see Table 1) prior to mission launch. The delay would continue until the marine mammal that caused the postponement is confirmed to be outside of the ZOI due to the animal moving out of the range, and

(2) Any marine mammal is detected in the buffer zone and cannot be subsequently re-sighted. The mission would not continue until the last verified location is outside of the ZOI and the animal is moving away from the mission area.

In the event of a postponement, pre-mission monitoring would continue as long as weather and daylight hours allow. Aerial monitoring is limited by

fuel and the on-station time of the monitoring aircraft. If a live warhead failed to explode operations would attempt to recognize and solve the problem while continuing with all mitigation measures in place. The probability of this occurring is very remote but does exist. Should a weapon fail to explode, the activity sponsor would attempt to identify the problem and detonate the charge with all marine mammal mitigation measures in place as described. If a live warhead fails to explode the weapon is rendered safe after 15 minutes. The feasibility and practicality of recovering the warhead will be evaluated on a case-by-case basis. If at all feasible, the warhead will be recovered.

Launch to Impact

Visual monitoring from vessels would continue to survey the ZOI and surrounding buffer zone and track animals moving in the direction of the impact area. The lead scientist would continue to plot and record sightings and bearing for all marine animals detected. This will depict animal sightings relative to the impact area. Due to economic costs of testing (\$2 million per test) and the practical considerations (in-air destruction of the missile), NMFS is not proposing to require Eglin AFB to terminate an in-flight missile or bomb due to sighting of a protected species.

Post-mission monitoring

Post-mission monitoring is designed to gauge the effectiveness of pre-mission mitigation by reporting any sightings of dead or injured marine mammals. Post-detonation monitoring via shipboard surveyors would commence immediately following each detonation; no aerial surveys would be conducted during this monitoring stage. The vessels will move into the ZOI from outside the safety zone and continue monitoring for at least two hours, concentrating on the area down current of the test site.

Although it is highly unlikely that marine mammals will be killed or seriously injured by this activity, any marine mammals killed by an explosion would likely suffer lung rupture, which would cause them to float to the surface immediately due to air in the blood stream. Any animals that are not killed instantly but are mortally wounded would likely resurface within a few days, though this would depend on the size and type of animal, fat stores, depth, and water temperature (DON, 2001). The monitoring team would attempt to document any marine mammals or turtles that are killed or

injured as a result of the test and, if practicable, recover and examine any dead animals. The species, number, location, and behavior of any animals observed by the observation teams would be documented and reported to the lead scientist.

Post-mission monitoring activities include coordination with marine animal stranding networks. NMFS maintains stranding networks along coasts to collect and circulate information about marine mammal strandings. Local coordinators report stranding data to state and regional coordinators. Any observed dead or injured marine mammals would be reported to the appropriate coordinator.

Summary of Mitigation Plan

The PSW test will be postponed if any human safety concerns arise, protected species are sighted within the ZOI, any protected species is detected in the buffer zone and subsequently cannot be reacquired, or a marine mammal is moving into the ZOI from the buffer zone. The delay would continue until the marine mammal that caused the postponement is confirmed to be outside of the ZOI due to the animal swimming out of the range.

Avoidance of impacts to pods of cetaceans will most likely be realized through these measures since groups of dolphins are relatively easy to spot with the survey distances and methods that will be employed. Typically solitary marine mammals such as dwarf/pygmy sperm whales, while more challenging to detect, will also be afforded substantial protection through pre-test monitoring.

The safety vessels would conduct post-mission monitoring for two hours after each mission. The monitoring team would document any marine mammals or turtles observed dead or injured and, if practicable, recover and examine any dead animals.

Conservative Estimates of Marine Mammal Densities

Conservative mathematical calculations and conservative density estimates can serve as a technique for making conservative "take" estimates. Marine mammal densities used to calculate takes were based on the most current and comprehensive GOM surveys available (GulfCet II). The densities are adjusted for the time the animals are submerged, and further adjusted by applying standard deviations to provide an approximately 99 percent confidence level. As an example, the density estimates for bottlenose dolphins range from 0.06 to 0.15 animals/km² in GulfCet II aerial

surveys of the shelf and slope. However, the final adjusted density used in take calculations is 0.81 animals/km².

Reporting

NMFS is requiring Eglin AFB to submit an annual report on the results of the monitoring requirements. This annual report will be due within 30 days prior to the expiration of the current LOA. This report will then be used by NMFS to determine whether incidental takings by Eglin AFB from this activity continue to have a negligible impact on affected species and stocks of marine mammals. This report will include a discussion on the effectiveness of the mitigation in addition to the following information: (1) date and time of each of the detonations; (2) a detailed description of the pre-test and post-test activities related to mitigating and monitoring the effects of explosives detonation on marine mammals and marine mammal populations; (3) the results of the monitoring program, including numbers by species/stock of any marine mammals noted injured or dead, presumably as a result of the detonation and numbers that may have been harassed due to undetected presence within the ZOI (NMFS and Eglin AFB presume that if an area is determined to be clear of marine mammals and later, during post-event monitoring, marine mammals are found in the area, those marine mammals will be considered "taken"); and (4) results of coordination with coastal marine mammal stranding networks.

Research

Although Eglin AFB does not currently conduct independent Air Force monitoring efforts, Eglin AFB's Natural Resources Branch does participate in marine animal tagging and monitoring programs led by other agencies. The Natural Resources Branch also supports participation in annual surveys of marine mammals in the GOM with NMFS. From 1999 to 2002, Eglin AFB's Natural Resources Branch participated in summer cetacean monitoring and research opportunities through a contract representative. The contractor participated in visual surveys in 1999 for cetaceans in GOM, photographic identification of sperm whales in the northeastern Gulf in 2001, and served as a visual observer during the 2000 Sperm Whale Pilot Study and the 2002 sperm whale Satellite-tag (S-tag) cruise. Support for these research efforts is anticipated to continue.

Eglin AFB utilizes marine mammal stranding information to ascertain the effectiveness of its mitigation measures

for offshore activities. Stranding data is collected and maintained for the Florida panhandle and Gulf-wide areas. This is undertaken through the establishment and maintenance of contacts with local, state, and regional stranding networks. Eglin AFB assists with stranding data collection by maintaining its own team of stranding personnel. In addition to simply collecting stranding data, various analyses are performed. Stranding events are tracked by year, season, and NMFS statistical zone, both Gulf-wide and on the coastline in proximity to Eglin AFB. Stranding data is combined with records of EGTTR mission activity in each water range and analyzed for any possible correlation. In addition to being used as a measure of the effectiveness of mission mitigation, stranding data can yield insight into the species composition of cetaceans in the region.

Endangered Species Act (ESA)

NMFS issued a biological opinion regarding the effects of Eglin AFB's PSW activity on ESA-listed species and critical habitat under the jurisdiction of NMFS. That biological opinion concluded that Eglin AFB's PSW activity is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. On August 11, 2005, NMFS determined that issuance of an annual authorization under section 101(a)(5) of the MMPA to Eglin AFB for this activity will not have effects beyond what was analyzed in 2004 in the Biological Opinion. NMFS has also determined that the issuance of up to 5 LOAs to Eglin AFB under these regulations (if implemented) would not have effects beyond what was analyzed in the 2004 Biological Opinion. A copy of the Biological Opinion is available upon request (see **ADDRESSES**).

National Environmental Policy Act (NEPA)

In December, 2003, Eglin AFB released a Draft PEA on the PSW activity. On April 22, 2004 (69 FR 21816), NMFS noted that Eglin AFB had prepared a Draft PEA for PSW activities and made this PEA available upon request. Eglin AFB updated the information in that PEA and issued a Final PEA and a Finding of No Significant Impact (FONSI) on the PSW activities.

In accordance with NOAA Administrative Order 216-6 (Environmental Review Procedures for Implementing the National Environmental Policy Act, May 20, 1999), NMFS has reviewed the information contained in Eglin AFB's

Final PEA and determined that the Eglin AFB's PEA accurately and completely describes the preferred action alternative, a reasonable range of alternatives, and the potential impacts on marine mammals, endangered species, and other marine life that could be impacted by the preferred and non-preferred alternatives. Based on this review and analysis, NMFS adopted Eglin AFB's PEA under 40 CFR 1506.3 and, on July 25, 2005, made its own FONSI statement on issuance of an annual authorization under section 101(a)(5) of the MMPA. As the impacts on the human environment by issuance of this rulemaking and annual LOAs to Eglin AFB are not substantially different from the action analyzed in Eglin's PEA and NMFS' July 25, 2005 FONSI and as no incremental change would occur under this new authority, NMFS has determined that it is not necessary to issue a new EA, a supplemental EA or an environmental impact statement for the issuance of an LOA to Eglin AFB to take marine mammals incidental to this activity. A copy of NMFS' July 25, 2006, FONSI for this activity is available upon request (see **ADDRESSES**). A paper copy of the Eglin AFB Programmatic EA for this activity is available by contacting either Eglin AFB or NMFS (see **ADDRESSES**).

Determinations

NMFS has determined that, based on the information provided in Eglin AFB's application, the Final PEA and this document, the total taking of marine mammals by PSW activities will have a negligible impact on the affected species or stocks over the 5-year period of take authorizations. While no take by serious injury or death is anticipated during this period, limited mortality is proposed to be authorized in the event that the extensive mitigation measures are not totally successful. However, even if serious injury or mortality were to occur, the total taking still would have no more than a negligible impact on the affected marine mammal species or stocks.

In addition, the potential for temporary or permanent hearing impairment is low and will have the least practicable adverse impact on the affected species or stocks through the incorporation of the mitigation measures mentioned in this document. The information contained in Eglin AFB's EA and incidental take application support NMFS' finding that impacts will be mitigated by: (1) implementation of a conservative safety range for marine mammal exclusion; (2) incorporation of aerial and shipboard survey monitoring efforts

in the program both prior to and after detonation of explosives; and (3) delay/postponement/cancellation of detonations whenever marine mammals or other specified protected resources are either detected within the safety zone or may enter the safety zone at the time of detonation or if weather and sea conditions preclude adequate aerial surveillance. Since the taking will not result in more than the incidental harassment of certain species of marine mammals, will have only a negligible impact on these stocks, will not have an unmitigable adverse impact on the availability of these stocks for subsistence uses (as there are no known subsistence uses of marine mammal stocks in the GOM), and, through implementation of required mitigation and monitoring measures, will result in the least practicable adverse impact on the affected marine mammal stocks, NMFS has determined that the requirements of section 101(a)(5)(A) of the MMPA have been met and this final rule can be issued.

Changes from the Proposed Rule

Based on a public comment, these regulations require the marine mammal observation platform to provide observers a platform to see a major portion of the safety zone.

Classification

This action has been determined to be not significant for purposes of Executive Order 12866.

The Chief Counsel for Regulation of the Department of Commerce certified to the Chief Counsel for Advocacy of the Small Business Administration during the proposed rule stage that this action would not have a significant economic impact on a substantial number of small entities. The factual basis for the certification was published in the proposed rule and is not repeated here. No comments were received regarding this certification. As a result, a regulatory flexibility analysis was not required and none was prepared.

List of Subjects in 50 CFR Part 216

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

Dated: November 15, 2006.

John Oliver,

Deputy Assistant Administrator for Operations, National Marine Fisheries Service.

■ For reasons set forth in the preamble, 50 CFR part 216 is amended as follows:

**PART 216—REGULATIONS
GOVERNING THE TAKING AND
IMPORTING OF MARINE MAMMALS**

■ 1. The authority citation for part 216 continues to read as follows:

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

■ 2. Subpart V is reserved.

■ 3. Subpart W is added to part 216 to read as follows:

**Subpart W—Taking Marine Mammals
Incidental to Conducting Precision
Strike Weapon Missions in the Gulf of
Mexico**

Sec.

- 216.250 Specified activity and specified geographical region.
- 216.251 Effective dates.
- 216.252 Permissible methods of taking.
- 216.253 Prohibitions.
- 216.254 Mitigation.
- 216.255 Requirements for monitoring and reporting.
- 216.256 Applications for Letters of Authorization.
- 216.257 Letters of Authorization.
- 216.258 Renewal of Letters of Authorization.
- 216.259 Modifications to Letters of Authorization.

**Subpart W—Taking Marine Mammals
Incidental to Conducting Precision
Strike Weapon Missions in the Gulf of
Mexico**

§ 216.250 Specified activity and specified geographical region.

(a) Regulations in this subpart apply only to the incidental taking of those marine mammal species specified in paragraph (b) of this section by U.S. citizens engaged in U.S. Air Force Precision Strike Weapon missions within the Eglin Air Force Base Gulf Test and Training Range within the northern Gulf of Mexico. The authorized activities as specified in a Letter of Authorization issued under §§ 216.106 and 216.257 include, but are not limited to, activities associated with (1) the Joint Air-to-Surface Stand-off Missile (JASSM) exercise for a maximum of two live shots (single) and 4 inert shots (single) annually and (2) the small-diameter bomb (SDB) exercise for a maximum of six live shots a year, with two of the shots occurring simultaneously and a maximum of 12 inert shots, with up to two occurring simultaneously.

(b) The incidental take by Level A harassment, Level B harassment, or mortality of marine mammals under the activity identified in this section is limited to the following species: Atlantic bottlenose dolphins (*Tursiops truncatus*), Atlantic spotted dolphins (*Stenella frontalis*), dwarf sperm whales

(*Kogia simus*) and pygmy sperm whale (*Kogia breviceps*).

§ 216.251 Effective dates.

Regulations in this subpart are effective from December 26, 2006 until December 27, 2011.

§ 216.252 Permissible methods of taking.

(a) Under Letters of Authorization issued pursuant to §§ 216.106 and 216.257, the Holder of the Letter of Authorization may incidentally, but not intentionally, take marine mammals by Level A and Level B harassment, including lethal take within the area described in § 216.250(a), provided the activity is in compliance with all terms, conditions, and requirements of these regulations and the appropriate Letter of Authorization.

(b) The taking of marine mammals under a Letter of Authorization is limited to the species listed in § 216.250(b) and is limited to a total of 1 mortality, 2 takes by Level A harassment, and 53 takes by Level B harassment annually.

§ 216.253 Prohibitions.

Notwithstanding takings contemplated in § 216.250 and authorized by a Letter of Authorization issued under §§ 216.106 and 216.257, no person in connection with the activities described in § 216.250 shall:

(a) Take any marine mammal not specified in § 216.250(b);

(b) Take any marine mammal specified in § 216.250(b) other than by incidental, unintentional Level A or Level B harassment or mortality;

(c) Take a marine mammal specified in § 216.250(b) if such taking results in more than a negligible impact on the species or stocks of such marine mammal; or

(d) Violate, or fail to comply with, the terms, conditions, and requirements of these regulations or a Letter of Authorization issued under §§ 216.106 and 216.257.

§ 216.254 Mitigation.

The activity identified in § 216.250(a) must be conducted in a manner that minimizes, to the greatest extent practicable, adverse impacts on marine mammal species and stocks and their habitats. When conducting operations identified in § 216.250(a) under a Letter of Authorization, the following mitigation measures must be implemented:

(a)(1) For the JASSM, the holder of the Letter of Authorization must establish and monitor a safety zone for marine mammals with a radius of 2.0 nm (3.7 km) from the center of the detonation

and a buffer zone with a radius of 1.0 nm (1.85 km) radius from the outer edge of the safety zone.

(2) For the SDB, the holder of the Letter of Authorization must establish and monitor a safety for marine mammals with a radius of no less than 5 nm (9.3 km) for single bombs and 10 nm (18.5 km) for double bombs and a buffer zone from the outer edge of the safety zone with a radius of at least 2.5 nm (4.6 km) for single bombs and 5 nm (18.5 km) for double bombs.

(b) Prior to a JASSM or SDB launch:

(1) If any marine mammals are observed within the designated safety zone prescribed in condition (a)(1) above, or within the buffer zone prescribed in condition (a)(2) above and it/they are on a course that will put them within the safety zone prior to an JASSM or SDB launch, the launch must be delayed until all marine mammals are no longer within the designated safety zone.

(2) If any marine mammals are detected in the buffer zone and subsequently cannot be reacquired, the mission launch will not continue until the next verified location is outside of the safety zone and the animal is moving away from the mission area.

(3) If weather and/or sea conditions preclude adequate aerial surveillance for detecting marine mammals, detonation must be delayed until adequate sea conditions exist for aerial surveillance to be undertaken. Adequate sea conditions means the sea state does not exceed Beaufort sea state 3.5 (i.e., whitecaps on 33 to 50 percent of surface; 0.6 m (2 ft) to 0.9 m (3 ft) waves), the visibility is 5.6 km (3 nm) or greater, and the ceiling is 305 m (1,000 ft) or greater.

(4) To ensure adequate daylight for pre- and post-detonation monitoring, mission launches may not take place earlier than 2 hours after sunrise, and detonations may not take place later than 2 hours prior to sunset, or whenever darkness or weather conditions will preclude completion of the post-test survey effort described in § 216.255.

(5) If post-detonation surveys determine that a serious injury or lethal take of a marine mammal has occurred, the test procedure and the monitoring methods must be reviewed with the National Marine Fisheries Service and appropriate changes must be made prior to conducting the next mission detonation.

(6) Mission launches must be delayed if aerial or vessel monitoring programs described under § 216.255 cannot be carried out fully.

§ 216.255 Requirements for monitoring and reporting.

(a) The Holder of the Letter of Authorization issued pursuant to §§ 216.106 and 216.257 for activities described in § 216.250(a) is required to conduct the monitoring and reporting measures specified in this section and any additional monitoring measures contained in the Letter of Authorization.

(b) The Holder of the Letter of Authorization is required to cooperate with the National Marine Fisheries Service, and any other Federal, state or local agency authorized to monitor the impacts of the activity on marine mammals. Unless specified otherwise in the Letter of Authorization, the Holder of the Letter of Authorization must notify the Director, Office of Protected Resources, National Marine Fisheries Service, or designee, by letter or telephone (301-713-2289), at least 2 weeks prior to any modification to the activity identified in § 216.250(a) that has the potential to result in the mortality or Level A or Level B harassment of marine mammals that was not identified and addressed previously.

(c) The Holder of this Authorization must:

(1) Designate qualified on-site marine mammal observers to record the effects of mission launches on marine mammals that inhabit the northern Gulf of Mexico;

(2) Have on-site marine mammal observers approved in advance by the National Marine Fisheries Service to conduct the mitigation, monitoring and reporting activities specified in these regulations and in the Letter of Authorization issued pursuant to § 216.106 and § 216.257.

(3) Conduct aerial surveys to reduce impacts on protected species. The aerial survey/monitoring team will consist of two experienced marine mammal observers, approved in advance by the Southeast Region, National Marine Fisheries Service. The aircraft will also have a data recorder who would be responsible for relaying the location, the species if possible, the direction of movement, and the number of animals sighted.

(4) Conduct shipboard monitoring to reduce impacts to protected species. Trained marine mammal observers will conduct monitoring from the highest point possible on each mission or support vessel(s). The observer on the vessel must be equipped with optical equipment with sufficient magnification (e.g., 25X power "Big-Eye" binoculars). The marine mammal observation platform must be of sufficient height to

provide observers a platform to see a major portion of the safety zone.

(d) The aerial and shipboard monitoring teams will maintain proper lines of communication to avoid communication deficiencies. The observers from the aerial team and operations vessel will have direct communication with the lead scientist aboard the operations vessel.

(e) Pre-mission Monitoring: Approximately 5 hours prior to the mission, or at daybreak, the appropriate vessel(s) would be on-site in the primary test site near the location of the earliest planned mission point. Observers onboard the vessel will assess the suitability of the test site, based on visual observation of marine mammals and overall environmental conditions (visibility, sea state, etc.). This information will be relayed to the lead scientist.

(f) Three Hours Prior to Mission:

(1) Approximately three hours prior to the mission launch, aerial monitoring will commence within the test site to evaluate the test site for environmental suitability. Evaluation of the entire test site would take approximately 1 to 1.5 hours. The aerial monitoring team will begin monitoring the safety zone and buffer zone around the target area.

(2) Shipboard observers will monitor the safety and buffer zone, and the lead scientist will enter all marine mammal sightings, including the time of sighting and the direction of travel, into a marine animal tracking and sighting database.

(g) One to 1.5 Hours Prior to Mission Launch:

(1) Depending upon the mission, aerial and shipboard viewers will be instructed to leave the area and remain outside the safety area. The aerial team will report all marine animals spotted and their directions of travel to the lead scientist onboard the vessel.

(2) The shipboard monitoring team will continue searching the buffer zone for protected species as it leaves the safety zone. The surface vessels will continue to monitor from outside of the safety area until after impact.

(h) Post-mission monitoring:

(1) The vessels will move into the safety zone from outside the safety zone and continue monitoring for at least two hours, concentrating on the area down current of the test site.

(2) The Holder of the Letter of Authorization will closely coordinate mission launches with marine animal stranding networks. Coordination shall include:

(i) Pre-activity notification of a PSW exercise; and

(ii) Post-event surveying of the Eglin AFB shore-line in the vicinity of the PSW exercise.

(3) The monitoring team will document any dead or injured marine mammals and, if practicable, recover and examine any dead animals.

(i) Activities related to the monitoring described in this section may include retention of marine mammals without the need for a separate scientific research permit.

(j) The Holder of the Letter of Authorization must conduct any marine mammal research required under the Letter of Authorization.

(k) *Reporting.* (1) Unless specified otherwise in the Letter of Authorization, the Holder of the Letter of Authorization must submit an annual report to the Director, Office of Protected Resources, National Marine Fisheries Service, no later than 30 days prior to the date of expiration of the Letter of Authorization. This report must contain all information required by these regulations and the Letter of Authorization.

(2) The final comprehensive report on all marine mammal monitoring and research conducted during the period of these regulations must be submitted to the Director, Office of Protected Resources, National Marine Fisheries Service at least 240 days prior to expiration of these regulations or 240 days after the expiration of these regulations if new regulations will not be requested.

§ 216.256 Applications for Letters of Authorization.

To incidentally take marine mammals pursuant to these regulations, the U.S. citizen (as defined at § 216.103) conducting the activity identified in § 216.250(a) must apply for and obtain either an initial Letter of Authorization in accordance with §§ 216.106 and 216.257 or a renewal under § 216.258.

§ 216.257 Letter of Authorization.

(a) A Letter of Authorization, unless suspended or revoked, will be valid for a period of time specified in the Letter of Authorization, but may not to exceed the period of validity of this subpart, and must be renewed annually subject to annual renewal conditions in § 216.258.

(b) A Letter of Authorization with a period of validity less than the period of this subpart may be renewed subject to renewal conditions in § 216.258.

(c) Each Letter of Authorization will set forth:

(1) Permissible methods of incidental taking;

(2) Means of effecting the least practicable adverse impact on the species, its habitat, and on the availability of the species for subsistence uses; and

(3) Requirements for monitoring and reporting incidental takes.

(d) Issuance and renewal of the Letter of Authorization will be based on a determination that the total number of marine mammals taken by the activity as a whole will have no more than a negligible impact on the species or stock of affected marine mammals.

(e) Except for the initial Letter of Authorization, notice of issuance or denial of subsequent Letters of Authorization will be published in the **Federal Register** within 30 days of a determination.

§ 216.258 Renewal of Letters of Authorization.

(a) A Letter of Authorization issued under § 216.106 and § 216.257 for the activity identified in § 216.250(a) will be renewed annually upon:

(1) Notification to the National Marine Fisheries Service that the activity described in the application submitted under § 216.256 will be undertaken and that there will not be a substantial modification to the described work,

mitigation or monitoring undertaken during the upcoming 12 months;

(2) Timely receipt of the monitoring report required under § 216.255(k), and the Letter of Authorization, which has been reviewed and accepted by the National Marine Fisheries Service; and

(3) A determination by the National Marine Fisheries Service that the mitigation, monitoring and reporting measures required under § 216.254, § 216.255, and the Letter of Authorization issued under §§ 216.106 and 216.257, were undertaken and will be undertaken during the upcoming annual period of validity of a renewed Letter of Authorization.

(b) If a request for a renewal of a Letter of Authorization issued under §§ 216.106 and 216.258 indicates that a substantial modification to the described work, mitigation, monitoring or research undertaken during the upcoming season will occur, the National Marine Fisheries Service will provide the public a period of 30 days for review and seek comment on:

(1) New cited information and data that indicates that the determinations made for promulgating these regulations are in need of reconsideration, and

(2) Proposed changes to the mitigation, monitoring and research

requirements contained in these regulations or in the current Letter of Authorization.

§ 216.259 Modifications to Letters of Authorization.

(a) Except as provided in paragraph (b) of this section, no substantive modification (including withdrawal or suspension) to a Letter of Authorization issued pursuant to §§ 216.106 shall be made until after notification and an opportunity for public comment has been provided. For purposes of this paragraph, a renewal of a Letter of Authorization under § 216.258, without modification (except for the period of validity), is not considered a substantive modification.

(b) If the Assistant Administrator determines that an emergency exists that poses a significant risk to the well-being of the species or stocks of marine mammals specified in § 216.250(b), a Letter of Authorization issued pursuant to §§ 216.106 and 216.257 may be substantively modified without prior notification and an opportunity for public comment. Notification will be published in the **Federal Register** within 30 days subsequent to the action.

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