

LIST OF PETITIONS RECEIVED BY EDA FOR CERTIFICATION OF ELIGIBILITY TO APPLY FOR TRADE ADJUSTMENT—
Continued

[9/1/2009 through 10/9/2009]

Firm	Address	Date accepted for filing	Products
Innovative Coatings, Inc	24 Jayar Road, Medway, MA 02053.	9/25/2009	Custom molded grips, caps, sleeves and covers.
Champion Bus, Inc./General Coach America.	331 Graham Rd., Imlay City, MI 48444.	9/25/2009	Passenger busses and coaches for public transportation.
CAB Footwear LP	2100 Wyoming Ave., El Paso, TX 79903.	9/25/2009	Leather footwear, custom boots.
S & S Cycle, Inc	14025 County Highway G, Viola, WI 54664-8892.	9/10/2009	Complete engines, performance parts, and stock replacement parts.
ThyssenKrupp Bilstein of America, Inc.	8685 Berk Blvd, Hamilton, OH 45015.	9/25/2009	Shock absorbers.
Montana Sundown dba Rocky Mountain.	1883 Highway 93 S, Hamilton, MT 59840.	10/9/2009	Custom notched logs for log home kits.
Precision Metalcraft, LLC	2853 S. Hillaide St., Wichita, KS 67216-2546.	9/16/2009	High precision stainless steel, titanium & aluminum structural components for the aerospace industry.
Klune Industries, Inc	1800 North 300 West, Spanish Fork, UT 84660.	9/22/2009	Precision machined aircraft components and assemblies.
White Electronic Designs Corporation.	3601 E. University Drive, Phoenix, AZ 85034-7217.	9/23/2009	Semiconductors and related devices.
Turning Solutions, Inc	34 East Harmer Street, Warren, PA 16365.	9/10/2009	Turning Solutions, Inc. specializes in metal and nonmetal turned CNC precision products such as bolts, nuts, rivets, valves, pipe fittings and washers.

Any party having a substantial interest in these proceedings may request a public hearing on the matter. A written request for a hearing must be submitted to the Office of Performance Evaluation, Room 7009, Economic Development Administration, U.S. Department of Commerce, Washington, DC 20230, no later than ten (10) calendar days following publication of this notice. Please follow the procedures set forth in Section 315.9 of EDA's final rule (71 FR 56704) for procedures for requesting a public hearing. The Catalog of Federal Domestic Assistance official program number and title of the program under which these petitions are submitted is 11.313, Trade Adjustment Assistance.

Dated: October 13, 2009.

Bryan Borlik,

Program Director, TAA for Firms.

[FR Doc. E9-25036 Filed 10-16-09; 8:45 am]

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648-XS20

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Conducting Air-to-Surface Gunnery Missions in the Gulf of Mexico

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and

Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; proposed incidental harassment authorization; request for comments.

SUMMARY: NMFS received an application from the U.S. Air Force (USAF), Eglin Air Force Base (Eglin AFB), for renewal of an Incidental Harassment Authorization (IHA) to take marine mammals, by harassment, incidental to conducting air-to-surface (A-S) gunnery missions in the Gulf of Mexico (GOM). The USAF's activities are considered military readiness activities. Pursuant to the MMPA, NMFS is requesting comments on its proposal to issue an IHA to Eglin AFB to take, by Level B harassment only, several species of marine mammal during the specified activity for a period of 1 year.

DATES: Comments and information must be received no later than November 18, 2009.

ADDRESSES: Comments on the application should be addressed to Michael Payne, Chief, Permits, Conservation and Education Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910-3225. The mailbox address for providing e-mail comments is PR1.0648-XS20@noaa.gov. NMFS is not responsible for e-mail comments sent to addresses other than the one provided here. Comments sent via e-mail,

including all attachments, must not exceed a 10-megabyte file size.

Instructions: All comments received are a part of the public record and will generally be posted to <http://www.nmfs.noaa.gov/pr/permits/incidental.htm> without change. All Personal Identifying Information (for example, name, address, etc.) voluntarily submitted by the commenter may be publicly accessible. Do not submit Confidential Business Information or otherwise sensitive or protected information.

A copy of the application containing a list of the references used in this document and NMFS' 2008 Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) may be obtained by writing to the address specified above, telephoning the contact listed below (**FOR FURTHER INFORMATION CONTACT**), or visiting the Internet at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>. Documents cited in this notice may also be viewed, by appointment, during regular business hours, at the aforementioned address. **FOR FURTHER INFORMATION CONTACT:** Candace Nachman, Office of Protected Resources, NMFS, (301) 713-2289, ext 156.

SUPPLEMENTARY INFORMATION:

Background

Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce to allow, upon request, the incidental, but not

intentional, taking of small numbers 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 either regulations are issued or, if the taking is limited to harassment, a notice of a proposed authorization is provided to the public for review.

Authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (where relevant), and if the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such takings are set forth. NMFS has defined "negligible impact" in 50 CFR 216.103 as "an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival."

Section 101(a)(5)(D) of the MMPA established an expedited process by which citizens of the U.S. can apply for an authorization to incidentally take small numbers of marine mammals by harassment. Section 101(a)(5)(D) establishes a 45-day time limit for NMFS review of an application followed by a 30-day public notice and comment period on any proposed authorizations for the incidental harassment of marine mammals. Within 45 days of the close of the comment period, NMFS must either issue or deny the authorization.

The National Defense Authorization Act (NDAA) (Pub. L. 108-136) removed the "small numbers" and "specified geographical region" provisions and amended the definition of "harassment" as it applies to a "military readiness activity" to read as follows (Section 3(18)(B) of the MMPA):

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

Summary of Request

NMFS originally received an application on February 13, 2003, from Eglin AFB for the taking, by harassment, of marine mammals incidental to

programmatic mission activities within the Eglin Gulf Test and Training Range (EGTTR). The EGTTR is described as the airspace over the GOM that is controlled by Eglin AFB. A notice of receipt of Eglin AFB's application and Notice of Proposed IHA and request for 30-day public comment published on January 23, 2006 (71 FR 3474). A 1-year IHA was subsequently issued to Eglin AFB for this activity on May 3, 2006 (71 FR 27695, May 12, 2006).

On January 29, 2007, NMFS received a request from Eglin AFB for a renewal of its IHA, which expired on May 2, 2007. This application addendum requested revisions to three components of the IHA requirements: Protected species surveys, ramp-up procedures, and sea state restrictions. A Notice of Proposed IHA and request for 30-day public comment published on May 30, 2007 (72 FR 29974). A 1-year IHA was subsequently issued to Eglin AFB for this activity on December 11, 2008 (73 FR 78318, December 22, 2008) and is effective through December 10, 2009.

On February 17, 2009, NMFS received a request from Eglin AFB for a renewal of its IHA, which is valid through December 10, 2009. No modifications to the activity location, the mission activities, or the mitigation and monitoring measures that are required under the 2008-2009 IHA have been requested by Eglin AFB. Therefore, these activities are identical to what has been described previously (73 FR 78318, December 22, 2008). A-S gunnery operations may potentially impact marine mammals at or near the water surface. Marine mammals could potentially be harassed, injured, or killed by exploding and non-exploding projectiles, and falling debris (USAF, 2002). However, based on analyses provided in the USAF's 2002 Final Programmatic EA (PEA), Eglin's Supplemental Information Request (2003), and NMFS' 2008 EA, as well as for reasons discussed later in this document, NMFS concurs with Eglin that gunnery exercises are not likely to result in any injury or mortality to marine mammals. Potential impacts resulting from A-S test operations include direct physical impacts (DPI) resulting from ordnance. Sixteen marine mammal species or stocks are considered for taking by Level B harassment incidental to Eglin AFB's A-S activities and include: Bryde's whale (*Balaenoptera brydei*); sperm whale (*Physeter macrocephalus*); dwarf sperm whale (*Kogia simus*); pygmy sperm whale (*K. breviceps*); Atlantic bottlenose dolphin (*Tursiops truncatus*); Atlantic spotted dolphin (*Stenella frontalis*); pantropical spotted dolphin

(*S. attenuata*); Cuvier's beaked whale (*Ziphius cavirostris*); Clymene dolphin (*S. clymene*); spinner dolphin (*S. longirostris*); striped dolphin (*S. coeruleoalba*); false killer whale (*Pseudorca crassidens*); pygmy killer whale (*Feresa attenuata*); Risso's dolphin (*Grampus griseus*); rough-toothed dolphin (*Steno bredanensis*); and short-finned pilot whale (*Globicephala macrorhynchus*).

Description of the Specified Activity

A-S gunnery missions, a "military readiness activity" as defined under 16 U.S.C. 703 note, involve surface impacts of projectiles and small underwater detonations with the potential to affect cetaceans that may occur within the EGTTR. These missions typically involve the use of 25-mm (0.98-in), 40-mm (1.57-in), and 105-mm (4.13-in) gunnery rounds containing, 0.0662 lb (30 g), 0.865 lb (392 g), and 4.7 lbs (2.1 kg) of explosive, respectively. Live rounds must be used to produce a visible surface splash that must be used to "score" the round (the impact of inert rounds on the sea surface would not be detected). The USAF has developed a 105-mm training round (TR) that contains less than 10 percent of the amount of explosive material (0.35 lb; 0.16 kg) as compared to the "Full-Up" (FU) 105-mm (4.13 in) round. The TR was developed as one method to mitigate effects on marine life during nighttime A-S gunnery exercises when visibility at the water surface is poor. However, the TR cannot be used in the daytime since the amount of explosive material is insufficient to be detected from the aircraft.

Water ranges within the EGTTR that are typically used for the gunnery operations are located in the GOM offshore from the Florida Panhandle (areas W-151A, W-151B, W-151C, and W-151D as shown in Figure 1-2 in Eglin's 2003 application). Data indicate that W-151A (Figure 1-3 in Eglin's application) is the most frequently used water range due to its proximity to Hurlburt Field, but activities may occur anywhere within the EGTTR.

Eglin AFB proposes to conduct these mission activities year round during both daytime and nighttime hours. Therefore, NMFS proposes to make the IHA effective for an entire year from December 11, 2009 (after expiration of the current IHA) through December 10, 2010.

As required under the 2006 IHA, the AC-130 gunship aircraft was to conduct at least two complete orbits at a minimum safe airspeed around a prospective target area at a maximum altitude of 1,500 ft (457 m). Based on an

amendment requested by Eglin AFB, NMFS required an operational altitude of approximately 4,500 to 10,000 ft (1,372–3,048 m) in the 2008 IHA. Ascent occurs over a 10–15 minute period. Eglin AFB has noted that the search area for these orbits ensures that no vessels (or protected species) are within an area of 5 nm (9.3 km) of the target. The AC–130 continues orbiting the selected target point as it climbs to the mission-testing altitude. During the low altitude orbits and the climb to testing altitude, aircraft crew visually scan the sea surface within the aircraft’s orbit circle for the presence of vessels and protected species. Primary responsibility for the surface scan is on the flight crew in the cockpit and personnel stationed in the tail observer bubble and starboard viewing window. The AC–130’s optical and electronic sensors are also employed for target clearance. If any marine mammals are detected within the AC–130’s orbit circle, either during initial clearance or after commencement of live firing, the aircraft will relocate to another target area and repeat the clearance procedures. A typical distance from the coast for this activity is at least 15 mi (24 km).

When offshore, the crews can scan a 5-nm (9.3-km) radius around the potential impact area to ensure it is clear of surface craft, marine mammals, and sea turtles. Scanning is accomplished using radar, all-light television (TV), infrared sensors (IR), and visual means. An alternative area would be selected if any cetaceans or vessels were detected within a 5-nm (9.3 km) search area. Once the scan is completed, Mk-25 flares are dropped and the firing sequence is initiated.

A typical gunship mission lasts approximately 5 hr without refueling and 6 hr when air-to-air refueling is accomplished. A typical mission includes the following sequence of events: (1) 30 min for take-off and to perform airborne sensor alignment, align electro-optical sensors (IR and TV) to heads-up display; (2) 1.5 to 2 hr of dry fire (no ordnance expended) and

includes transition time; (3) 1.5 to 2 hr of live fire, and includes clearing the area and transiting to and from the range (actual firing activities typically do not exceed 30 min); (4) 1 hr air-to-air refueling, if and when performed; and (5) 30 min of transition work (take-offs, approaches, and landings-pattern work).

The guns are fired during the live-fire phase of the mission. The actual firing can last from 30 min to 1.5 hr but is typically completed in 30 min. The number and type of A–S gunnery munitions deployed during a mission varies with each type of mission flown. In addition to the 25-, 40-, and 105-mm rounds, marking flares are also deployed as targets. All guns are fired at a specific target in the water, usually an Mk-25 flare, starting with the lowest caliber ordnance or action with the least impact and proceeding to greater caliber sizes. To establish the test target area, two Mk-25 flares are deployed into the center of the 5-nm (9.3-km) radius cleared area (visually clear of aircraft, ships, and surface marine species) on the water’s surface. The flare’s burn time normally lasts 10 to 20 min but could be much less if actually hit with one of the ordnance projectiles; however, some flares have burned as long as 40 min. Live fires are a continuous event with pauses during the firing usually well under a minute and rarely from 2 to 5 min. Firing pauses would only exceed 10 min if surface boat traffic or marine protected species caused the mission to relocate; if aircraft, gun, or targeting system problems existed; or if more flares needed to be deployed. The Eglin Safety Office has described the gunnery missions as having 95-percent containment with a 99-percent confidence level within a 5-m (16.4-ft) area around the established flare target test area.

Live-Fire Event: 25-mm Round

The 25-mm (0.98-in) firing event in a typical mission includes approximately 500 to 1,000 rounds. These rounds are fired in short bursts. These bursts last approximately 2–3 s with approximately 100 rounds per burst. Based on the very tight target area and extremely small

“miss” distance, these bursts of rounds all enter the water within a 5-m (16.4-ft) area. Therefore, when calculations of the marine mammal Zone of Impact (ZOI) and take estimates are made later in this document for the 25-mm rounds, calculations will be based on the total number of rounds fired per year divided by 100.

Live-Fire Event: 40-mm Round

The 40-mm (1.57 in) firing event of a typical mission includes approximately 10 s with approximately 20 rounds per burst. Based on the very tight target area and extremely small “miss” distance, these bursts of rounds all enter the water within a 5-m (16.4 ft) area. Therefore, when calculations of the marine mammal ZOI and take estimates are made later in this document for the 40-mm rounds, calculations will be based on the total number of rounds fired per year divided by 20.

Live-Fire Event: 105-mm Round

The 105-mm firing event of a typical mission includes approximately 20 rounds. These rounds are not fired in bursts but as single shots. The 105-mm firing event lasts approximately 5 min with approximately two rounds per minute. Due to the single firing event of the 105-mm round, the peak pressure of each single 105-mm round is measured at a given distance (90 m (295 ft) for the 105-mm TR and 216 m (709 ft) for the 105-mm FU).

As described in Eglin’s 2003 application, gunnery testing in this request includes historical baseline yearly amounts in addition to proposed nighttime gunnery missions. Daytime gunnery testing uses the 105-mm FU round and nighttime gunnery training is proposed using the 105-mm TR. The number of 105-mm rounds including nighttime operations would amount to 1,742. As shown in detail in Tables 1 and 2, Eglin proposes to conduct a total of 28 daytime missions and 263 nighttime missions annually, expending 3,832 rounds in the daytime and 30,802 rounds at night (242 105-mm FU and 1,500 rounds would be the 105-mm TR).

TABLE 1—SUMMARY OF DAYTIME GUNNERY TESTING OPERATIONS IN THE EGTR

Test area	Category	Expendable	Condition	Baseline quantity of expendables	Number of missions	Number of events
W-151A	GUN	105 mm HE	LIVE	128	6	18
		25 mm HEI	LIVE	1,275	1	1
		40 mm HEI	LIVE	536	6	18
W-151B	GUN	105 mm HE	LIVE	46	2	6
		25 mm HEI	LIVE	294	1	1
		40 mm HEI	LIVE	146	1	3
W-151C	GUN	105 mm HE	LIVE	10	1	3

TABLE 1—SUMMARY OF DAYTIME GUNNERY TESTING OPERATIONS IN THE EGTTT—Continued

Test area	Category	Expendable	Condition	Baseline quantity of expendables	Number of missions	Number of events
W-151D	GUN	25 mm HEI	LIVE	142	1	1
		40 mm HEI	LIVE	50	1	3
		105 mm HE	LIVE	39	2	6
W-151S	GUN	25 mm HEI	LIVE	567	1	1
		40 mm HEI	LIVE	198	2	6
		105 mm HE	LIVE	19	1	3
		25 mm HEI	LIVE	283	1	1
		40 mm HEI	LIVE	99	1	3
Total				3,832	28	74

TABLE 2—SUMMARY OF NIGHTTIME GUNNERY TRAINING OPERATIONS IN THE EGTTT

Test area	Category	Expendable	Condition	Alt. 3 quantity	Number of missions	Number of events
W-151A	GUN	105 mm TR	LIVE	902	45	135
		25 mm HEI	LIVE	7,864	8	8
		40 mm HEI	LIVE	9,811	102	306
W-151B	GUN	105 mm TR	LIVE	255	13	39
		25 mm HEI	LIVE	1,452	2	2
		40 mm HEI	LIVE	3,023	31	93
W-151C	GUN	105 mm TR	LIVE	197	9	36
		25 mm HEI	LIVE	2,301	2	2
		40 mm HEI	LIVE	2,302	24	72
W-151D	GUN	105 mm TR	LIVE	133	7	21
		25 mm HEI	LIVE	830	1	1
		40 mm HEI	LIVE	1,583	16	48
W-151S	GUN	105 mm TR	LIVE	13	1	3
		25 mm HEI	LIVE	54	1	1
		40 mm HEI	LIVE	82	1	3
Total				30,802	263	770

Description of Marine Mammals in the Area of the Specified Activity

There are 29 species of marine mammals documented as occurring in Federal waters of the GOM. Of these 29 species of marine mammals, approximately 21 may be found within the proposed action area, the EGTTT. These species are the Bryde’s whale, sperm whale, dwarf sperm whale, pygmy sperm whale, Atlantic bottlenose dolphin, Atlantic spotted dolphin, pantropical spotted dolphin, Blainville’s beaked whale (*Mesoplodon densirostris*), Cuvier’s beaked whale, Gervais’ beaked whale (*M. europaeus*), Clymene dolphin, spinner dolphin, striped dolphin, killer whale (*Orcinus orca*), false killer whale, pygmy killer whale, Risso’s dolphin, Fraser’s dolphin (*Lagenodelphis hosei*), melon-headed whale (*Peponocephala electra*), rough-toothed dolphin, and short-finned pilot whale. Of these species, only the sperm whale is listed as endangered under the Endangered Species Act (ESA) and as depleted throughout its range under the MMPA. While some of the other species listed here have depleted status under the MMPA, none of the GOM stocks of

those species are considered depleted. More detailed information on these species can be found in Wursig *et al.* (2000), NMFS’ 2008 EA (*see ADDRESSES*), and in the NMFS U.S. Atlantic and GOM Stock Assessment Reports (Waring *et al.*, 2009). This latter document is available at: <http://www.nefsc.noaa.gov/publications/tm/tm210/>. The West Indian manatee (*Trichechus manatus*) is managed by the U.S. Fish and Wildlife Service and is not considered further in this proposed IHA **Federal Register** notice.

The species most likely to occur in the area of Eglin AFB’s proposed activities include: Atlantic bottlenose dolphin; Atlantic spotted dolphin; pantropical spotted dolphin; spinner dolphin; striped dolphin; Risso’s dolphin; Clymene dolphin; and dwarf and pygmy sperm whales. Blainville’s beaked whale, Gervais’ beaked whale, killer whale, Fraser’s dolphin, and melon-headed whales are rare in the project area and are not anticipated to be impacted by the A–S gunnery mission activities. Therefore, these five species are not considered further in

this proposed IHA **Federal Register** notice.

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 (MMS) Eastern Planning Area, an area of 70,470 km². Texas A&M University and NMFS conducted the 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 EGTTT, given that the survey area overlaps approximately one-third of the EGTTT and nearly the entire continental shelf region of the EGTTT where military activity is highest. Cetaceans inhabiting the study area may be grouped as odontocetes (toothed whales, including dolphins) or mysticetes (baleen whales). Most of the cetaceans occurring in the Gulf are odontocetes. Very few baleen whales exist in the Gulf and most would not be expected to occur within the study area given the known distribution of these species. Table 3–5 in the USAF 2002 PEA lists the abundance and density of cetacean populations in the northern

GOM, as estimated from NMFS aerial surveys. However, in order to provide better species conservation and protection, the species density estimate data were adjusted by incorporating: (1) Temporal and spatial variations; (2) surfaced and submerged variations; and (3) overall density estimate confidence (Table 3–1 in Eglin AFB’s 2003 application; see ADDRESSES).

The GulfCet II aerial surveys identified different density estimates of marine mammals for the shelf and slope geographic locations. Accordingly, the greatest species density estimate available for any given location was utilized for conservative impact assessments. The final adjusted density incorporates marine mammal submergence factors and a confidence level of the density estimates. The GulfCet II surveys focus on enumerating animals detected at the ocean surface and therefore do not account for submerged animals. The percent time that an animal is submerged versus at the surface was obtained from Moore and Clarke (1998), and the density estimates were adjusted accordingly. Additionally, the standard deviations of the densities were calculated, and the information was used to provide an approximately 99 percent confidence level for the adjusted densities. The adjusted densities are outlined in Table 3–1 in Eglin AFB’s 2003 application.

Potential Effects of the Specified Activity on Marine Mammals

A–S gunnery operations may potentially impact marine mammals at or near the water surface. Marine mammals could potentially be harassed, injured or killed by exploding and non-exploding projectiles, and falling debris (USAF, 2002). However, based on analyses provided in the USAF’s Final PEA, Eglin’s Supplemental Information Request (2003), and NMFS’ 2008 EA, NMFS concurs with Eglin that gunnery exercises are not likely to result in any injury or mortality to marine mammals.

Explosive criteria and thresholds for assessing impacts of explosions on marine mammals were discussed by NMFS in detail in its issuance of an IHA for Eglin’s Precision Strike Weapon testing activity (70 FR 48675, August 19, 2005) and are not repeated here. Please refer to that document for this

background information. However, one part of the analysis has changed. That information is provided here.

Subsequent to the issuance of the USAF 2002 PEA, NMFS updated one of the dual criteria related to the onset level for temporary threshold shift (TTS; a Level B harassment). The USAF 2002 PEA describes the onset of TTS by a single explosion (impulse) based on the criterion in use at that time. Newly available information based on lab controlled experiments that used a seismic watergun to induce TTS in one beluga whale and one bottlenose dolphin (Finneran *et al.*, 2002) showed measured TTS₂ (TTS level 2 min after exposure) was 7 and 6 dB in the beluga at 0.4 and 30 kHz, respectively, after exposure to intense single pulses at 226 dB re: 1 µPa p-p (peak to peak). This sound pressure level (SPL) is equivalent to 23 pounds per square inch (psi). Hearing threshold returned to within 2 dB of the pre-exposure value within 4 min of exposure. No TTS was observed in the bottlenose dolphin at the highest exposure condition (228 dB re 1 µPa p-p). Therefore, NMFS updated the SPL from impulse sound that could induce TTS to 23 psi, from the previous 12 psi. Table 3 in this document outlines the acoustic criteria used by NMFS when addressing noise impacts from explosives. These criteria remain consistent with criteria established for other activities in the EGTTR and other acoustic activities authorized under sections 101(a)(5)(A) and (D) of the MMPA. The 23 psi criterion is used in this document and NMFS’ 2008 EA for evaluating the potential for the onset of TTS (Level B harassment) in marine mammals. Additional information on the derivation of the 23 psi criterion can be found in the *Final Environmental Impact Statement/Overseas Environmental Impact Statement for the Shock Trial of the Mesa Verde (LPD 19)* (Department of the Navy, 2008).

TABLE 3—CURRENT NMFS ACOUSTIC CRITERIA WHEN ADDRESSING HARASSMENT FROM EXPLOSIVES

Level B Behavior	176 dB 1/3 Octave SEL (sound energy level).
Level B TTS Dual Criterion.	182 dB 1/3 Octave SEL.

TABLE 3—CURRENT NMFS ACOUSTIC CRITERIA WHEN ADDRESSING HARASSMENT FROM EXPLOSIVES—Continued

Level A PTS (permanent threshold shift).	205 dB SEL.
Level B Dual Criteria	23 psi.
Level A Injury	13 psi-msec.
Mortality	30.5 psi-msec.

Direct Physical Impacts (DPI)

Potential impacts resulting from A–S test operations include DPI resulting from ordnance. DPI could result from inert bombs, gunnery ammunition, and shrapnel from live missiles falling into the water. Marine mammals swimming at the surface could potentially be injured or killed by projectiles and falling debris if not sighted and firing discontinued. Mainly due to the comparatively large number of rounds expended, small arms gunnery operations offers a worst-case scenario for evaluating DPI of EGTTR operations. Some small-arms gunnery rounds contain small amounts of explosives, but the majority do not. However, the possibility of DPI to marine mammals is considered highly unlikely. Therefore, the risk of injury or mortality is low. The assumptions made by Eglin AFB for DPI calculations can be found in the USAF 2002 Final PEA under the analysis for Alternative 1. Approximately 606 small-arms gunnery firing events comprise the baseline level of potential DPI events, as shown here in Table 4. DPI impacts are only anticipated to affect marine species at or very near the ocean surface.

Mortality resulting from DPI or the resulting sounds generated into the water column from detonations was determined to be highly unlikely and was not considered further by Eglin AFB or NMFS because of the small amounts of net explosive weight for each of the rounds fired in the EGTTR and the proposed mitigation measures discussed later in this document (see “Proposed Mitigation” section). Impacts to marine mammals are anticipated to be limited to Level B harassment in the form of temporary changes in behavior or temporary changes in hearing thresholds (*i.e.*, TTS).

TABLE 4—EGTTR AIR-TO-SURFACE GUNNERY/SMALL ARMS OPERATIONS AS EVENTS

Activity/EGTTR event	Percentage of events	Number of events
Small Arms 50 Cal Ball Events	16.3	99
Small Arms 5.56 Linked Events	0.8	5
Small Arms 7.62 mm Ball Events	82.8	502

TABLE 4—EGTTR AIR-TO-SURFACE GUNNERY/SMALL ARMS OPERATIONS AS EVENTS—Continued

Activity/EGTTR event	Percentage of events	Number of events
Total Baseline—Small Caliber Events	100	606

Anticipated Effects on Habitat

The primary source of marine mammal habitat impact is noise resulting from gunnery missions. However, the noise does not constitute a long-term physical alteration of the water column or bottom topography, as the occurrences are of limited duration and are intermittent in time. The target flare's burn time normally lasts 10 to 20 min. Given this short time of a lighted environment and the variable locations they are dropped, no increases in density of phytoplankton or other organisms introducing primary productivity into the waters are expected to affect marine mammal habitat or populations. Also, live fires are a continuous event with pauses during the firing usually well under a minute and rarely from 2 to 5 min. Likewise, surface vessels associated with the missions are present in limited duration and are intermittent as well.

Other sources that may affect marine mammal habitat were considered and potentially include the introduction of fuel, chaff, debris, ordnance, and chemical residues into the water column. Chemical residues can enter the water through ammunition, flares, drones, missiles, and smoke. However, the small quantities of chemical compounds that may potentially be introduced into the marine waters of the eastern GOM would rapidly disperse. These additions would be too small to adversely impact the GOM waters.

Based on this information, NMFS has preliminarily determined that the proposed A-S gunnery mission activities will not have any impact on the food or feeding success of marine mammals in the northern GOM. Additionally, no loss or modification of the habitat used by cetaceans in the GOM is expected. Marine mammals are anticipated to temporarily vacate the area of live fire events. However, these events usually do not last more than 90 to 120 min at a time, and animals are anticipated to return to the activity area during periods of non-activity. Thus, the proposed activity is not expected to have any habitat-related effects that could cause significant or long-term consequences for individual marine mammals or on the food sources that they utilize.

Proposed Mitigation

In order to issue an incidental take authorization (ITA) under Section 101(a)(5)(A) and (D) of the MMPA, NMFS must, where applicable, set forth the permissible methods of taking pursuant to such activity and other means of effecting the least practicable impact on such species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of such species or stock for taking for certain subsistence uses (where relevant). The NDAA of 2004 amended the MMPA as it relates to military readiness activities and the ITA process such that "least practicable impact" shall include consideration of personnel safety, practicality of implementation, and impact on the effectiveness of the "military readiness activity". The training activities described in Eglin AFB's application are considered military readiness activities.

The mitigation measures proposed for inclusion in the IHA are the same as those required in the current IHA (73 FR 78318, December 22, 2008). These measures are virtually identical to the mitigation measures that were required in the 2006 IHA (71 FR 27695, May 12, 2006). There were only three differences in the mitigation and monitoring measures between the 2006 and 2008 IHAs. Eglin AFB's 2007 application addendum requested revisions to three components of the IHA requirements: Protected species surveys, ramp-up procedures, and sea state restrictions. A discussion of the differences in the requirements can be found in the 2008 IHA Notice of Issuance (73 FR 78318, December 22, 2008) and NMFS' 2008 EA. The revisions to those three requirements are also included in this proposed IHA. However, the explanations as to why Eglin AFB requested the changes and NMFS' determinations specific to those three requirements are not repeated in this document. Readers should refer to either the 2008 IHA notice or NMFS' 2008 EA (*see ADDRESSES*) for the full explanation.

Development of the Training Round

The largest type of ammunition used during typical gunnery missions is the 105-mm (4.13-in) round containing 4.7

lbs (2.1 kg) of high explosive (HE). This is several times more HE than that found in the next largest round (40 mm/1.57 in). As a mitigation technique, the USAF developed a 105-mm TR that contains only 0.35 lb (0.16 kg) of HE. The TR was developed to dramatically reduce the risk of harassment at night and Eglin AFB anticipates a 96 percent reduction in impact by using the 105-mm TR.

Visual Mitigation

Areas to be used in gunnery missions are visually monitored for marine mammal presence from the AC-130 aircraft prior to commencement of the mission. If the presence of one or more marine mammals is detected, the target area will be avoided. In addition, monitoring will continue during the mission. If marine mammals are detected at any time, the mission will halt immediately and relocate as necessary or suspended until the marine mammal has left the area. Daytime and nighttime visual monitoring will be supplemented with IR and TV monitoring. As nighttime visual monitoring is generally considered to be ineffective at any height, the EGTTR missions will incorporate the TR.

Ramp-Up Procedures

The rationale for requiring ramp-up procedures is that this process may allow animals to perceive steadily increasing noise levels and to react, if necessary, before the noise reaches a threshold of significance. The AC-130 gunship's weapons are used in two activity phases. First, the guns are checked for functionality and calibrated. This step requires an abbreviated period of live fire. After the guns are determined to be ready for use, the mission proceeds under various test and training scenarios. This second phase involves a more extended period of live fire and can incorporate use of one or any combination of the munitions available (25-, 40-, and 105-mm rounds). The ramp-up procedure shall be required for the initial gun calibration, and, after this phase, the guns may be fired in any order. Eglin and NMFS believe this process will allow marine species the opportunity to respond to increasing noise levels. If an animal leaves the area during ramp-up, it is unlikely to return while the live-fire

mission is proceeding. This protocol allows a more realistic training experience. In combat situations, gunship crews would not likely fire the complete ammunition load of a given caliber gun before proceeding to another gun. Rather, a combination of guns would likely be used as required by an evolving situation. An additional benefit of this protocol is that mechanical or ammunition problems on an individual gun can be resolved while live fire continues with functioning weapons. This also diminishes the possibility of a lengthy pause in live fire, which, if greater than 10 min, would necessitate Eglin's re-initiation of protected species surveys (described next).

Other Mitigation

In addition to the development of the TR, the visual mitigation, and the ramp-up procedures already described in this document, additional mitigation measures to protect marine life were included in the 2006 and 2008 IHAs and are proposed for inclusion in this proposed IHA. These requirements include:

(1) If daytime weather and/or sea conditions preclude adequate aerial surveillance for detecting marine mammals and other marine life, A-S gunnery exercises must be delayed until adequate sea conditions exist for aerial surveillance to be undertaken. Daytime test firing will be conducted only when sea surface conditions are sea state 4 or less on the Beaufort scale.

(2) Prior to each firing event, the aircraft crew will conduct a visual survey of the 5-nm (9.3-km) wide prospective target area to attempt to sight any marine mammals that may be present (the crew will do the same for sea turtles and Sargassum rafts). The AC-130 gunship will conduct at least two complete orbits at a minimum safe airspeed around a prospective target area at a maximum altitude of 6,000 ft (1,829 m). Provided marine mammals (and other protected species) are not detected, the AC-130 can then continue orbiting the selected target point as it climbs to the mission testing altitude. During the low altitude orbits and the climb to testing altitude, the aircraft crew will visually scan the sea surface within the aircraft's orbit circle for the presence of marine mammals. Primary emphasis for the surface scan will be upon the flight crew in the cockpit and personnel stationed in the tail observer bubble and starboard viewing window. The AC-130's optical and electronic sensors will also be employed for target clearance. If any marine mammals are detected within the AC-130's orbit circle, either during initial clearance or

after commencement of live firing, the aircraft will relocate to another target and repeat the clearance procedures. If multiple firing events occur within the same flight, these clearance procedures will precede each event.

(3) The aircrews of the A-S gunnery missions will initiate location and surveillance of a suitable firing site immediately after exiting U.S. territorial waters (less than or equal to 12 nm (22 km)). This would potentially restrict most gunnery activities to the shallower continental shelf waters of the GOM where marine mammal densities are typically lower, and thus potentially avoid the slope waters where the more sensitive species (e.g., endangered sperm whales) typically reside.

(4) Observations will be accomplished using all-light TV, IR sensors, and visual means for at least 60 min prior to each exercise.

(5) Aircrews will utilize visual, night vision goggles, and other onboard sensors to search for marine mammals while performing area clearance procedures during night-time pre-mission activities.

(6) If any marine mammals are sighted during pre-mission surveys or during the mission, activities will be immediately halted until the area is clear of all marine mammals for 60 min or the mission location relocated and resumed.

(7) If post-detonation surveys determine that an injury or lethal take of a marine mammal has occurred, the test procedure and the monitoring methods must be reviewed with NMFS and appropriate changes must be made, prior to conducting the next air-to-surface gunnery exercise.

NMFS has carefully evaluated the applicant's proposed mitigation measures and considered a range of other measures in the context of ensuring that NMFS prescribes the means of effecting the least practicable impact on the affected marine mammal species and stocks and their habitat. Our evaluation of potential measures included consideration of the following factors in relation to one another:

- The manner in which, and the degree to which, the successful implementation of the measure is expected to minimize adverse impacts to marine mammals;
- The proven or likely efficacy of the specific measure to minimize adverse impacts as planned; and
- The practicability of the measure for applicant implementation, including consideration of personnel safety, practicability of implementation, and impact on the effectiveness of the military-readiness activity.

Based on our evaluation of the applicant's proposed measures, as well as other measures considered by NMFS, NMFS has preliminarily determined that the proposed mitigation measures provide the means of effecting the least practicable impact on marine mammal species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, while also considering personnel safety, practicability of implementation, and impact on the effectiveness of the military-readiness activity.

Proposed Monitoring and Reporting

In order to issue an ITA for an activity, Section 101(a)(5)(D) of the MMPA states that NMFS must, where applicable, set forth "requirements pertaining to the monitoring and reporting of such taking". The MMPA implementing regulations at 50 CFR 216.104(a)(13) indicate that requests for ITAs must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of taking or impacts on populations of marine mammals that are expected to be present in the proposed action area.

The Incidental Take Statement in NMFS' Biological Opinion on this action required certain monitoring measures to protect marine life. NMFS also imposed these same requirements, as well as additional ones, under Eglin AFB's 2006 and 2008 IHAs as they related to marine mammals. NMFS is proposing to include these same measures in the 2009 IHA (if issued). They are:

(1) The A-S gunnery mission aircrews will participate in the marine mammal species observation training. Designated crew members will be selected to receive training as protected species observers. Observers will receive training in protected species survey and identification techniques.

(2) Aircrews will initiate the post-mission clearance procedures beginning at the operational altitude of approximately 15,000 to 20,000 ft (4,572 to 6,096 m) elevation, and then initiate a spiraling descent down to an observation altitude of approximately 6,000 ft (1,829 m) elevation. Rates of descent will occur over a 3 to 5 min time frame.

(3) Eglin will track their use of the EGTR for test firing missions and protected species observations, through the use of mission reporting forms.

(4) A-S gunnery missions will coordinate with next-day flight activities to provide supplemental post-

mission observations for marine mammals in the operations area of the previous day.

(5) A summary annual report of marine mammal observations and A-S activities will be submitted to the NMFS Southeast Regional Office (SERO) and the Office of Protected Resources either at the time of a request for renewal of an IHA or 90 days after expiration of the current IHA if a new IHA is not requested. This annual report must include the following information:

(i) Date and time of each air-to-surface gunnery exercise; (ii) a complete description of the pre-exercise and post-exercise activities related to mitigating and monitoring the effects of A-S gunnery exercises on marine mammal populations; (iii) results of the monitoring program, including numbers by species/stock of any marine mammals noted injured or killed as a result of the gunnery exercises and number of marine mammals (by species if possible) that may have been harassed due to presence within the 5-nm activity zone; and (iv) a detailed assessment of the effectiveness of sensor-based monitoring in detecting marine mammals in the area of A-S gunnery operations.

(6) If any dead or injured marine mammals are observed or detected prior to testing, or injured or killed during live fire, a report must be made to NMFS by the following business day.

(7) Any unauthorized takes of marine mammals (*i.e.*, injury or mortality) must be immediately reported to NMFS and to the respective stranding network representative.

Estimated Take by Incidental Harassment

As it applies to a “military readiness activity”, the definition of harassment is (Section 3(18)(B) of the MMPA):

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

Only take by Level B harassment is anticipated as a result of the A-S gunnery mission activities. The exercises are expected to only affect animals at or very near the surface of the water. Cetaceans in the vicinity of the exercises may incur temporary changes in behavior and/or temporary changes in their hearing thresholds. Based on the mitigation and monitoring measures described earlier in this document, no injury or mortality of marine mammals is anticipated as a result of the A-S gunnery mission activities.

DPI impacts are only anticipated to affect marine species at or very near the ocean surface. As a result, in order to calculate impacts, Eglin used corrected species densities (*see* Table 4–23 in the USAF’s Final PEA) to reflect the surface interval population, which is approximately 10 percent of densities calculated for distribution in the total water column. As shown in Table 5 in this document (and thereby correcting PEA Table 4–23), the impacts to marine mammals swimming at the surface that

could potentially be injured or killed by projectiles and falling debris was determined to be an average of 0.2059 marine mammals per year. However, NMFS believes that the mitigation measures that Eglin proposes under this action would significantly reduce even these low levels.

In addition to small arms, Eglin calculated the potential for other non-explosive items (bombs, missiles, and drones) to impact marine mammals. The number of annual events expected are 551 bombs, 1,183 missiles, and 99 drones. As shown in the 2002 Final PEA and Table 6 in this document, the potential for any non-small arms/non-gunnery DPI to marine mammals is extremely remote and can, therefore, be discounted.

Similar to non-small arms/non-gunnery DPI impacts, DPI impacts from gunnery activities may also affect marine mammals in the surface zone. Again, DPI impacts are anticipated to affect only marine mammals at or near the ocean surface and not animals that are submerged at the time. Accordingly, the density estimates have been adjusted to indicate surface animals only being potentially affected. Using the firing methodology explained earlier in this document, Tables 7 and 8 demonstrate that the potential for any DPI from gunnery activities are extremely remote and can be discounted. Using the largest round (105 mm), it would take approximately 120 yr to impact a marine mammal from daytime gunnery activities and approximately 27 yr to impact a marine mammal from nighttime gunnery activities.

TABLE 5—POTENTIAL SMALL ARMS DPI IMPACTS (ANNUAL) TO MARINE MAMMAL SPECIES

Species	Density (#/km ²)	Adjusted density (#/km ²)	Impact zone area (km ²)	Animals in impact zone (#)	Years to impact 1 animal
Cetaceans	4.381	0.4381	0.047874	2.10E-02	48
Threatened and Endangered Cetaceans	0.011	0.0011	0.047874	5.27E-05	18,989

TABLE 6—POTENTIAL NON-SMALL ARMS/NON-GUNNERY DPI IMPACTS (ANNUAL) TO MARINE MAMMAL SPECIES

Species	Density (#/km ²)	Adjusted density (#/km ²)	Impact zone area (km ²)	Animals in impact zone (#)	Years to impact 1 animal
Cetaceans	4.381	0.4381	0.00688	0.003014128	332
Threatened and Endangered Cetaceans	0.011	0.0011	0.00688	0.000007568	132,135

TABLE 7—POTENTIAL DAYTIME GUNNERY DPI IMPACTS (ANNUAL) TO MARINE CETACEANS

Species/shell size	Density (#/km)	Adjusted density (#/km ²)	Impact zone area (km ²)	Number of events (#)	Animals in impact zone (#)	Years to impact 1 animal (#)
Cetacea (25 mm)	4.381	0.4381	.00007854	26	.000881198	1,135
Cetacea (40 mm)	4.381	0.4381	.00007854	51	.001770311	565
Cetacea (105mm)	4.381	0.4381	.00007854	242	.008326827	120

TABLE 8—POTENTIAL NIGHTTIME GUNNERY DPI IMPACTS (ANNUAL) TO MARINE CETACEANS

Species/shell size	Density (#/km)	Adjusted density (#/km ²)	Impact zone area (km ²)	Number of events (#)	Animals in impact zone (#)	Years to impact 1 animal (#)
Cetacea (25 mm)	4.381	0.4381	.00007854	125	.004287972	233
Cetacea (40 mm)	4.381	0.4381	.00007854	723	.024873814	40
Cetacea (105mm)	4.381	0.4381	.00007854	1061	.036507285	27

Estimating the impacts to marine mammals from underwater detonations is difficult due to complexities of the physics of explosive sound under water and the limited understanding with respect to hearing in marine mammals. Detailed assessments were made in the notice for the 2006 and 2008 IHAs on this action (71 FR 27695, May 12, 2006; 73 FR 78318, December 22, 2008) and are repeated in this **Federal Register** notice. These assessments used, and improved upon, the criteria and thresholds for marine mammal impacts that were developed for the shock trials of the *USS SEAWOLF* and the *USS Winston S. Churchill* (DDG-81) (Navy, 1998; 2001). The criteria and thresholds used in those actions were adopted by NMFS for use in calculating incidental takes from explosives. Criteria for assessing impacts from Eglin AFB's A-S gunnery exercises include: (1) Mortality, as determined by exposure to a certain level of positive impulse pressure (expressed as pounds per square inch per millisecond or psi-msec); (2) injury, both hearing-related and non-hearing related; and (3) harassment, as determined by a temporary loss of some hearing ability and behavioral reactions. Similar to the effects from DPI, due to the small amounts of net explosive weight (NEW) for each of the rounds fired in the EGTR and the mitigation measures proposed by NMFS for implementation, mortality resulting from either DPI or the resulting sounds generated into the water column from detonations was determined to be highly unlikely and was not considered further by Eglin AFB or NMFS.

Permanent hearing loss is considered an injury and is termed permanent

threshold shift (PTS). NMFS, therefore, categorizes PTS as Level A harassment. Temporary loss of hearing ability is termed TTS, meaning a temporary reduction of hearing sensitivity which abates following noise exposure. TTS is considered non-injurious and is categorized as Level B harassment. NMFS recognizes dual criteria for TTS, one based on peak pressure and one based on the greatest $\frac{1}{3}$ octave sound exposure level (SEL) or energy flux density level (EFDL), with the more conservative (*i.e.*, larger) of the two criteria being selected for impacts analysis (note: SEL and EFDL are used interchangeably, but with increasing scientific preference for SEL). The peak pressure metric used in previous shock trials to represent TTS was 12 pounds per square inch (psi) which, for the NEW used, resulted in a zone of possible Level B harassment approximately equal to that obtained by using a 182 decibel (dB) re 1 microPa²-s, total EFDL/SEL metric. The 12-psi metric is largely based on anatomical studies and extrapolations from terrestrial mammal data (*see* Ketten, 1995; Navy, 1999 (Appendix E, *Churchill* FEIS; and 70 FR 48675 (August 19, 2005)) for background information). However, the results of a more recent investigation involving marine mammals suggest that, for small charges, the 12-psi metric is not an adequate predictor of the onset of TTS but that one should use 23 psi. This explanation is provided earlier in this document.

Documented behavioral reactions occur at noise levels below those considered to cause TTS in marine mammals (Finneran *et al.*, 2002; Schlundt *et al.*, 2000; Finneran and

Schlundt, 2004). In controlled experimental situations, behavioral effects are typically defined as alterations of trained behaviors. Behavioral effects in wild animals are more difficult to define but may include decreased ability to feed, communicate, migrate, or reproduce. Abandonment of an area due to repeated noise exposure is also considered a behavioral effect. Analyses in other sections of this document refer to such behavioral effects as "sub-TTS Level B harassment." Schlundt *et al.* (2000) exposed bottlenose dolphins and beluga whales to various pure-tone sound frequencies and intensities in order to measure underwater hearing thresholds. Masking is considered to have occurred because of ambient noise environment in which the experiments took place. Sound levels were progressively increased until behavioral alterations were noted (at which point the onset of TTS was presumed). It was found that decreasing the sound intensity by 4 to 6 dB greatly decreased the occurrence of anomalous behaviors. The lowest sound pressure levels, over all frequencies, at which altered behaviors were observed, ranged from 178 to 193 dB re 1 μ Pa for the bottlenose dolphins and from 180 to 196 dB re 1 μ Pa for the beluga whales. Thus, it is reasonable to consider that sub-TTS (behavioral) effects occur at approximately 6 dB below the TTS-inducing sound level, or at approximately 176 dB in the greatest $\frac{1}{3}$ octave band EFDL/SEL.

Table 3 (earlier in this document) summarizes the relevant thresholds for levels of noise that may result in Level A harassment (injury) or Level B harassment via TTS or behavioral disturbance to marine mammals.

Mortality and injury thresholds are designed to be conservative by considering the impacts that would occur to the most sensitive life stage

(e.g., a dolphin calf). Table 9 provides the estimated ZOI radii for the EGTTT ordnance. At this time, there are no empirical data or information that

would allow NMFS to establish a peak pressure criterion for sub-TTS behavioral disruption.

TABLE 9—ESTIMATED RANGE FOR A ZONE OF IMPACT (ZOI) DISTANCE FOR THE EGTTT ORDNANCE

Expendable	Level A harassment-injurious(205 dB) EFD (m)	Level B harassment non-injurious (182 dB) EFD for TTS (m)	Level B harassment non-injurious (23 psi) for TTS (m)	Level B harassment non-injurious (176 dB) EFD for behavior (m)
105 mm FU	0.79	11.1	216	22.1
105-mm TR	0.22	3.0	90	6.0
40-mm HE	0.33	4.7	122	9.4
25-mm HE	0.11	1.3	49	2.6

FU=Full-up; TR=Training Round; HE=High Explosive

As mentioned previously, the EGTTT live fire events are continuous events with pauses during the firing usually well under a minute and rarely from 2 to 5 min. Live fire typically occurs within a 30 min time frame, including all ordnance fired: 25 mm (Phase I), 40 mm (Phase II), and 10 mm (Phase III), and where the 105-mm ordnance are fired as separate rounds with up to 30-s intervals, the 25-mm and the 40-mm are often fired in multiple bursts. These bursts include multiple rounds (25 to 100) within a 10- to 20-s time frame. Eglin notes that even if animal avoidance once firing commences is not considered, the average swim speed (1.5 m/s) of an animal would not allow sufficient time for new animals to re-enter the Level B harassment ZOI (23 psi) within the time frame of a single burst. As such, only the peak pressure of a single round is measured per burst and experienced at a given distance (49 m (161 ft; Phase I), 122 m (400 ft; Phase II)).

For daytime firing, it is assumed that the average swim speed per cetacean is approximately 3 knots or 1.5 m/sec. As a conservative scenario, Eglin assumes that there is one animal present within or near the 216-m Level B harassment (TTS) ZOI (FU 105-mm round ZOI) which may be potentially ensounded within the 23-psi TTS exposure at the time that the 105-mm live firing begins. Density distributions have assumed an even distribution of approximately 4.38 animals/km² or approximately 500 m (1640 ft) apart (all species) for the take estimate analysis. At this density distribution and typical swim speed, the next available cetacean would approach the perimeter of the 216-m (709 ft) ZOI (23-psi TTS ZOI) in approximately 5.5 min, assuming a straight line path. With live-fire events for the 105-mm occurring at a rate of approximately 2 rounds/min, nearly one half (or 10 rounds) of the total 105-mm rounds (20 rounds) would potentially be expended

within this 5.5 min time frame. If the concept of marine mammal avoidance of an area once firing commences is not considered, an average swim speed of 1.5 m/s (4.9 ft/s) would allow sufficient time for new animals to re-enter the 23-psi TTS impact area. Allowing for a potential 2 min break in firing after 10 rounds are expended, it is, therefore, conservative and reasonable to assume that nearly 3 to 4 individual animals could be exposed to the 23-psi TTS sound level during a typical 20 round firing event. Therefore, the ZOI and Level B harassment take estimate calculations are based on the total number of rounds fired per year divided by 5, or approximately 20 percent. This approach assumes that although single animals may be ensounded more than once due to the time required to exit the 23 psi TTS ZOI, animals are not considered to be “taken” more than once for the purposes of estimating take levels.

Similarly, as a conservative approach for nighttime firing, Eglin assumes that there is one animal present within or near the 90-m (295-ft) ZOI (105-mm TR ZOI) which may be potentially ensounded within the 23-psi TTS exposure zone at the time that the 105-mm round live firing phase begins. Density distributions have assumed an even distribution of approximately 4.38 animals/km² (all species) for the approach of impact analyses for estimation of take. At this density distribution and typical swim speed, the next available cetacean would approach the perimeter of the 90-m (295-ft) ZOI (23-psi TTS ZOI) in approximately 5.5 min or the same time as with the 216-m ZOI (used for the 105-mm FU). The difference is the amount of time it takes the animal to exit the ZOI, or, in other words, how long the animal resides within the ZOI on a straight line path. With live fire events of the 105-mm round occurring at a rate of approximately 2 rounds per min, nearly

one half (or 10 rounds) of the total 105-mm rounds (20 rounds) would potentially be expended within this 5.5-min time frame. If the concept of marine mammal avoidance of an area once firing commences is not considered, an average swim speed (1.5 m/s) of animals would allow sufficient time for new animals to re-enter the 23-psi TTS impact area. Allowing for a potential 2-min break in firing after 10 rounds are expended, it is conservative and reasonable to assume that nearly 3 to 4 individual animals may be potentially exposed to the 23–23-psi TTS sound level during a typical 20 round firing event. Therefore, the ZOI and take estimate calculations are based on the total number of rounds fired per year divided by 5, or approximately 20 percent. This approach assumes that, although single animals may be ensounded more than once due to the time required to exit the 23-psi TTS ZOI, individual animals are not considered to be “taken” more than once for the purposes of estimating take levels.

Based on this discussion, Table 10 in this **Federal Register** document provides Eglin AFB’s estimates of the annual number of marine mammals, by species, potentially taken by Level B harassment, by the gunnery mission noise. It should be noted that these estimates are derived without consideration of the effectiveness of Eglin AFB’s proposed mitigation measures (except use of the TR), which are discussed earlier in this document. As indicated in Table 10, Eglin AFB and NMFS estimate that up to 271 marine mammals may incur Level B (TTS) harassment annually. Because these gunnery exercises result in multiple detonations, they have the potential to also result in a temporary modification in behavior by marine mammals at levels below TTS. Based on NMFS’ estimates, up to 25 marine mammals may experience a behavioral response to

these exercises during the time frame of an IHA (see Table 10). Finally, while one would generally expect the threshold for behavioral modification to be lower than that causing TTS, due to a lack of empirical information and data, a dual criteria for Level B behavioral harassment cannot be developed. However, to ensure that takings are covered by this IHA, NMFS estimates that approximately 1,000 marine mammals of 16 stocks may incur Level B (harassment) takes during the 1-

year period of an IHA. NMFS has preliminarily determined that this number will be significantly lower due to the expected high effectiveness of the mitigation measures proposed for inclusion in the IHA (if issued).

Negligible Impact and Preliminary Determination

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.” In making a negligible impact determination, NMFS considers: (1) The number of anticipated mortalities; (2) the number and nature of anticipated injuries; (3) the number, nature, and intensity, and duration of Level B harassment; and (4) the context in which the takes occur.

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Table 10. Yearly Estimated Number of Marine Mammals Affected by the Gunnery Mission Noise

Species	Adjusted Density (#/km ²)	Level A Harassment Injurious 205 dB* EFD For Ear Rupture	Level B Harassment Injurious 182 dB* EFD For TTS	Level B Harassment Non-Injurious 23 psi For TTS	Level B Harassment Non-Injurious 176 dB* EFD For Behavior
Bryde's whale	0.007	<0.001	0.010	0.4	0.041
Sperm whale	0.011	<0.001	0.016	0.0	0.064
Dwarf/pygmy sperm whale	0.024	<0.001	0.035	1.5	0.139
Cuvier's beaked whale	0.10	<0.001	0.015	0.6	0.058
Mesoplodon spp.	0.019	<0.001	0.028	1.2	0.110
Pygmy killer whale	0.030	<0.001	0.044	1.9	0.174
False killer whale	0.026	<0.001	0.038	1.6	0.151
Short-finned pilot whale	0.027	<0.001	0.039	1.7	0.157
Rough-toothed dolphin	0.028	<0.001	0.041	1.7	0.163
Bottlenose dolphin	0.810	0.006	1.177	50.1	4.706
Risso's dolphin	0.113	0.001	0.164	7.0	0.657
Atlantic spotted dolphin	0.677	0.005	0.984	41.9	3.934
Pantropical spotted dolphin	1.077	0.008	1.565	66.7	6.258
Striped dolphin	0.237	0.002	0.344	14.7	1.377
Spinner dolphin	0.915	0.007	1.330	56.6	5.316
Clymene dolphin	0.253	0.002	0.368	15.7	1.470
Unidentified dolphin**	0.053	<0.001	0.077	3.3	0.308
Unidentified whale	0.008	<0.001	0.012	0.5	0.046
All marine mammals	4.325	0.032	6.29	271.1	25.13

km² = square kilometers; N/A = not applicable
 *dB = dB re 1 μPa²-s
 **Bottlenose dolphin/Atlantic spotted dolphin

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No injuries or mortalities are anticipated to occur as a result of Eglin AFB's A-S gunnery mission activities, and none are proposed to be authorized by NMFS. Takes will be limited to Level B harassment in the form of behavioral disturbance and TTS. Although activities would be permitted to occur year-round and can last for approximately 5 to 6 hours at a time, the

actual live-fire portion of the exercise usually only lasts for 90 to 120 min. It is possible that some individuals may be taken more than once if those individuals are located in the exercise area on two different days when exercises are occurring. However, multiple exposures are not anticipated to have effects beyond Level B harassment.

Of the 16 marine mammal species or stocks that may be impacted by Eglin AFB's A-S gunnery mission activities, only the sperm whale is listed as endangered under the ESA and as depleted under the MMPA. While animals may be impacted in the immediate vicinity of the activity, because of the small ZOIs (compared to the vast size of the GOM ecosystem where these species live) and the small

amounts of explosives used in the A–S gunnery exercises, NMFS has preliminarily determined that there will not be a substantial impact on marine mammals or on the normal functioning of the nearshore or offshore GOM ecosystems. The proposed activity is not expected to impact rates of recruitment or survival of marine mammals since no mortality (which would remove individuals from the population) or injury are anticipated to occur. Although the proposed activity is anticipated to result in Level B harassment of marine mammals (both by behavioral disturbance and TTS), the level of harassment is not anticipated to impact rates of recruitment or survival of marine mammals.

Additionally, the mitigation and monitoring measures proposed to be implemented (described earlier in this document) are expected to minimize even further the potential for injury or mortality. The protected species surveys will require Eglin AFB to search the area for marine mammals, and if any are found in the live fire area, then the exercise must be suspended until the animal(s) has left the area or relocated. Moreover, the aircrews of the A–S gunnery missions will initiate location and surveillance of a suitable firing site immediately after exiting U.S. territorial waters (less than or equal to 12 nm (22 km)). This would potentially restrict most gunnery activities to the shallower continental shelf waters of the GOM where marine mammal densities are typically lower, and thus potentially avoid the slope waters where the more sensitive species (*e.g.*, endangered sperm whales) typically reside.

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the mitigation and monitoring measures, NMFS preliminarily finds that Eglin AFB's A–S gunnery mission exercises will result in the incidental take of marine mammals, by Level B harassment only, and that the total taking from the A–S gunnery mission exercises will have a negligible impact on the affected species or stocks.

Impact on Availability of Affected Species or Stock for Taking for Subsistence Uses

There are no relevant subsistence uses of marine mammals implicated by this action.

Endangered Species Act (ESA)

A Biological Opinion issued by NMFS on October 20, 2004, concluded that the A–S gunnery exercises in the EGTR are

unlikely to jeopardize the continued existence of species listed under the ESA that are within the jurisdiction of NMFS or destroy or adversely modify critical habitat. NMFS has preliminarily determined that this action, including the modifications to the mitigation and monitoring measures in the 2008 IHA and proposed for inclusion in the 2009 IHA (if issued), does not have effects beyond that which was analyzed in that previous consultation, it is within the scope of that action, and reinitiation of consultation is not necessary. However, prior to issuance of this IHA, NMFS will make a final determination whether additional consultation is necessary.

National Environmental Policy Act (NEPA)

The USAF prepared a Final PEA in November 2002 for the EGTR activity. NMFS made the USAF's 2002 Final PEA available upon request on January 23, 2006 (71 FR 3474). In accordance with NOAA Administrative Order 216–6 (Environmental Review Procedures for Implementing the National Environmental Policy Act, May 20, 1999), NMFS reviewed the information contained in the USAF's 2002 Final PEA, and, on May 1, 2006, determined that the document accurately and completely described the proposed action, the alternatives to the proposed action, and the potential impacts on marine mammals, endangered species, and other marine life that could be impacted by the preferred alternative and the other alternatives. Accordingly, NMFS adopted the USAF's 2002 Final PEA under 40 CFR 1506.3 and made its own FONSI on May 16, 2006. The NMFS FONSI also took into consideration updated data and information contained in NMFS' **Federal Register** document noting issuance of an IHA to Eglin AFB for this activity (71 FR 27695, May 12, 2006), and previous notices (71 FR 3474 (January 23, 2006); 70 FR 48675 (August 19, 2005)).

As the issuance of the 2008 IHA to Eglin AFB amended three of the mitigation measures for reasons of practicality and safety, NMFS reviewed the USAF's 2002 Final PEA and determined that a new EA was warranted to address: (1) The proposed modifications to the mitigation and monitoring measures; (2) the use of 23 psi as a change in the criterion for estimating potential impacts on marine mammals from explosives; and (3) a cumulative effects analysis of potential environmental impacts from all GOM activities (including Eglin mission activities), which was not addressed in the USAF's 2002 Final PEA. Therefore,

NMFS prepared a new EA in December 2008 and issued a FONSI for its action on December 9, 2008. Based on those findings, NMFS determined that it was not necessary to complete an environmental impact statement for the issuance of an IHA to Eglin AFB for this activity. NMFS has preliminarily determined that this proposed activity is within the scope of NMFS' 2008 EA and FONSI.

Proposed Authorization

As a result of these preliminary determinations, NMFS proposes to authorize the take of several species of marine mammals incidental to the USAF, Eglin AFB, for their A–S gunnery mission activities in the GOM provided the previously mentioned mitigation, monitoring, and reporting requirements are incorporated.

Dated: October 8, 2009.

Helen M. Golde,

Deputy Director, Office of Protected Resources, National Marine Fisheries Service.
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DEPARTMENT OF ENERGY

Agency Information Collection Extension

AGENCY: U.S. Department of Energy.

ACTION: Notice and request for comments.

SUMMARY: The Department of Energy (DOE), pursuant to the Paperwork Reduction Act of 1995, intends to extend for three years, an information collection request with the Office of Management and Budget (OMB). Comments are invited on: (a) Whether the extended collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology. This information collection request pertains to the Human Reliability Program (HRP). This information collection request consists of forms that will certify to DOE that respondents were advised of the requirements for occupying or