§ 73.3527 [Amended]

■ 13. Amend § 73.3527 by removing and reserving paragraph (e)(13).

§§ 73.6011 and 73.6016 [Removed]

■ 14. Remove §§ 73.6011 and 73.6016.

PART 74—EXPERIMENTAL RADIO, AUXILIARY, SPECIAL BROADCAST AND OTHER PROGRAM DISTRIBUTIONAL SERVICES

■ 15. The authority citation for part 74 continues to read as follows:

Authority: 47 U.S.C. 154, 302a, 303, 307, 309, 310, 336 and 554.

§ 74.705 [Removed]

■ 16. Remove § 74.705.

PART 76—MULTICHANNEL VIDEO AND CABLE TELEVISION SERVICE

■ 17. The authority citation for part 76 continues to read as follows:

Authority: 47 U.S.C. 151, 152, 153, 154, 301, 302, 302a, 303, 303a, 307, 308, 309, 312, 315, 317, 325, 338, 339, 340, 341, 503, 521, 522, 531, 532, 534, 535, 536, 537, 543, 544, 544a, 545, 548, 549, 552, 554, 556, 558, 560, 561, 571, 572, 573.

§ 76.1630 [Removed]

■ 18. Remove § 76.1630.

[FR Doc. 2018–02552 Filed 2–7–18; 8:45 am]

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 218

[Docket No. 170831846–8105–02]

RIN 0648–BH21

Taking and Importing Marine Mammals; Taking Marine Mammals Incidental to Testing and Training Activities Conducted in the Eglin Gulf Test and Training Range in the Gulf of Mexico

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

ACTION: Final rule.

SUMMARY: Upon application from the United States Air Force (USAF), 96th Civil Engineer Group/Environmental Planning Office (96 CEG/CEIEA) at Eglin Air Force Base (hereafter referred to as Eglin AFB), NMFS is issuing regulations under the Marine Mammal Protection Act (MMPA) for the taking of marine mammals incidental to conducting testing and training activities in the Eglin Gulf Test and Training Range (EGTTR) in the Gulf of Mexico over the course of five years. These regulations allow NMFS to issue a Letter of Authorization (LOA) for the incidental take of marine mammals during the specified testing and training activities carried out during the rule's period of effectiveness, set forth the permissible methods of taking, set forth other means of effecting the least practicable adverse impact on marine mammal species or stocks and their habitat, and set forth requirements pertaining to the monitoring and reporting of the incidental take. The specific activities are classified as military readiness activities.

DATES: Effective February 13, 2018 through February 12, 2023.

ADDRESSES: To obtain an electronic copy of the USAF 96 CEG/CEIEA's LOA application or other referenced documents, visit the internet at: *http://www.nmfs.noaa.gov/pr/permits/incidental/military.htm.* Documents cited in this rule may also be viewed, by appointment, during regular business hours, at 1315 East-West Highway, SSMC III, Silver Spring, MD 20912.

FOR FURTHER INFORMATION CONTACT: Rob Pauline, Office of Protected Resources, NMFS, (301) 427–8401.

SUPPLEMENTARY INFORMATION:

Availability

A copy of the 96 CEG/CEIEA's application, NMFS proposed rule (82 FR 61372; December 27, 2017), the USAF's *Eglin Gulf Test and Training Range Environmental Assessment* (Navy 2015) and NMFS Finding of No Significant Impact (FONSI) may be obtained by visiting the internet at: *http://www.nmfs.noaa.gov/pr/permits/incidental/military.htm.* Documents cited in this rule may also be viewed, by appointment, during regular business hours, at the aforementioned address (see **ADDRESSES**).

Background

Section 101(a)(5)(A) of the MMPA (16 U.S.C. 1371(a)(5)(A)) directs 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 for up to five years if, after notice and public comment, the agency makes certain findings and issues regulations that set forth permissible methods of taking pursuant to that activity, as well as monitoring and reporting requirements. Section 101(a)(5)(A) of the MMPA and the implementing regulations at 50 CFR part 216, subpart I provide the legal basis for issuing this rule and any subsequent LOA pursuant to those regulations. As directed by this legal authority, this final rule contains mitigation, monitoring, and reporting requirements.

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 Secretary sets forth permissible methods of taking and other means of effecting the least practicable impact on the species or stock and its habitat. 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.''

The National Defense Authorization Act for Fiscal Year 2004 (Section 319, Pub. L. 108–136, November 24, 2003) (NDAA of 2004) removed the ''small numbers'' and ''specified geographical region'' limitations indicated earlier 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, 16 U.S.C. 1362(18)(B)): (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).

National Environmental Policy Act

To comply with the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321 *et seq.*) and NOAA Administrative Order (NAO) 216–6A, NMFS must review the proposed action (*i.e.,* the issuance of regulations and an LOA) with respect to potential impacts on the human environment.

Accordingly, NMFS has adopted the USAF's *Eglin Gulf Test and Training Range Environmental Assessment* and after an independent evaluation of the document found that it included adequate information analyzing the effects on the human environment of

issuing incidental take authorizations. In February 2018, NMFS issued a Finding of No Significant Impact (FONSI). The final EA and FONSI are available at: *http://www.nmfs.noaa.gov/pr/permits/incidental/military.htm.*

Summary of Request

On September 16, 2015, NMFS received a request for regulations from Eglin AFB for the taking of marine mammals incidental to testing and training activities in the EGTTR (defined as the area and airspace over the Gulf of Mexico controlled by Eglin AFB, beginning at a point three nautical miles (NM) off the coast of Florida) for a period of five years. Eglin AFB worked with NMFS to revise the model used to calculate take estimates and submitted a revised application on April 15, 2017. The application was considered adequate and complete on October 30, 2017.

On August 24, 2017, we published a notice of receipt of Eglin AFB's application in the **Federal Register** (82 FR 40141), requesting comments and information for thirty days related to Eglin AFB's request. We did not receive any comments from the public. We subsequently published a notice of proposed rulemaking in the **Federal Register** on December 27, 2017 (82 FR 61372), again requesting public comments.

NMFS previously issued incidental take authorizations for activities taking place in the EGTTR. On April 23, 2012, NMFS promulgated rulemaking and issued an LOA for takes of marine mammals incidental to Eglin AFB's Naval Explosive Ordnance Disposal School (NEODS) training operations at Eglin AFB. This rule expired on April 24, 2017 (77 FR 16718; March 22, 2012). On March 5, 2014, NMFS promulgated rulemaking and issued an LOA for takes of marine mammals incidental to Eglin AFB's Special Operations Command (AFSOC) precision strike weapons (PSW) and air-to-surface (AS) gunnery activities in the EGTTR, which is valid through March 4, 2019 (79 FR 13568; March 11, 2014). In addition to these rules and LOAs, NMFS has issued Incidental Harassment Authorizations (IHA) for take of marine mammals incidental to Eglin AFB's Maritime Strike Operations (78 FR 52135; August 22, 2013; valid August 19, 2013 through August 18, 2014) and Maritime Weapons Systems Evaluations Program (WSEP) annually in 2015 (80 FR 17394), 2016 (81 FR 7307), and 2017 (82 FR 10747) which currently expires on February 3, 2018. Eglin AFB complied with all conditions of the LOAs and IHAs issued, including submission of final reports. Information regarding their monitoring results may be found in the Effects of the Specified Activity on Marine Mammals and their Habitat section. Based on these reports, NMFS has determined that impacts to marine mammals were not beyond those anticipated. Eglin AFB's current LOA would supersede the existing PSW and AS gunnery rule that is in effect until March 4, 2019, and would include all of Eglin AFB's testing and training activities, including WSEP activities, into one new rule with the exception of NEODS training activities. Eglin AFB has never conducted any NEODS training activities and is not including these activities as part of the new rulemaking.

Summary of Major Provisions Within the Final Rule

Following is a summary of some of the major provisions applicable to Eglin AFB's Testing and training missions in the EGTTR. We have determined that Eglin AFB's adherence to the mitigation, monitoring, and reporting measures included in this rule would achieve the least practicable adverse impact on the affected marine mammals. The provisions, which are generally designed to minimize the duration and total volume of explosive detonations, include:

- Monitoring will be conducted by personnel who have completed Eglin's Marine Species Observer Training Course, which was developed in cooperation with the National Marine Fisheries Service;
- For each live mission, at a minimum, pre- and post-mission monitoring will be required. Monitoring will be conducted from a given platform depending on the specific mission. The purposes of pre-mission monitoring are to (1) evaluate the mission site for environmental suitability and (2) verify that the zone of influence (ZOI) is free of visually detectable marine mammals and potential marine mammal indicators. Post-mission monitoring is designed to determine the effectiveness of pre-mission mitigation by reporting sightings of any dead or injured marine mammals;
- Mission delay will be implemented during live ordnance mission activities if protected species, large schools of fish, or large flocks of birds are observed feeding at the surface within the ZOI. Mission activities may not resume until the animals are observed moving away from the ZOI or 30 minutes have passed;
- Mission delay will be implemented if daytime weather and/or sea conditions preclude adequate monitoring for detecting marine mammals and other marine life. EGTTR missions may not resume until adequate sea conditions exist for monitoring;
- If unauthorized takes of marine mammals (*i.e.,* serious injury or mortality) occur, ceasing operations and reporting to NMFS immediately and submitting a report to NMFS within 24 hours;
- Aerial-based monitoring will be employed which provides an excellent viewing platform for detection of marine mammals at or near the surface;
- Video-based monitoring via live high-definition video feed will be employed which facilitates data collection for the mission but can also allow remote viewing of the area for determination of environmental conditions and the presence of marine species up to the release time of live munitions;
- Vessel-based monitoring will be employed; and
- Ramp-up procedures will be implemented during gunnery operations.

Detailed Description of the Specified Activity

The proposed rule (82 FR 61372; December 27, 2017) and the 96 CEG/CEIEA's EA include a complete description of the USAF's specified training activities for which NMFS is authorizing incidental take of marine mammals in this final rule. Surface and sub-surface detonations are the stressors most likely to result in impacts on marine mammals that could rise to the level of harassment. The aforementioned documents can be found at *http://www.nmfs.noaa.gov/pr/permits/incidental/military.htm*). The description of location, delivery aircraft, and weapon types remain unchanged, and we incorporate this description by reference, and provide a summary below.

Eglin AFB will conduct military aircraft missions within the EGTTR that involve the employment of multiple types of live (explosive) and inert (non-explosive) munitions against various surface targets. Munitions may be delivered by multiple types of aircraft including, but not limited to, fighter jets, bombers, and gunships. Munitions consist of bombs, missiles, rockets, and gunnery rounds. The targets may vary, but primarily consist of stationary, towed, or remotely controlled boats, inflatable targets, or marking flares. Detonations may occur in the air, at the water surface, or approximately 10 feet (ft) below the surface. Absent mitigation, mission activities planned in the EGTTR have the potential to expose cetaceans to sound or pressure levels

currently associated with mortality, Level A harassment, and Level B harassment, as defined by the MMPA.

Testing and training missions would be conducted during any time of the year. Missions that involve inert munitions and in-air detonations may occur anywhere in the EGTTR. Aside from gunnery operations, mission activities that release live ordnance resulting in surface or subsurface detonations would be conducted at a pre-determined location approximately 17 miles offshore of Santa Rosa Island, in a water depth of about 35 meters (m) (115 ft).

All activities will take place within the EGTTR, which is defined as the airspace over the Gulf of Mexico controlled by Eglin AFB, beginning at a point 3 NM from shore. The EGTTR is subdivided into blocks consisting of Warning Areas W–155, W–151, W–470, W–168, and W–174, as well as Eglin Water Test Areas 1 through 6 (See Figure 1–2 in Application). Most of the blocks are further sub-divided into smaller airspace units for scheduling purposes (for example, W–151A, B, C, and D). However, most of the activities will occur in W–151, and the great majority will occur specifically in sub-area W–151A due to its proximity to shore (Figure 1–3 in Application). Descriptive information for all of W–151 and for W–151A specifically is provided below.

Eglin AFB plans to conduct the following actions in the EGTTR: (1) 86th Fighter Weapons Squadron (86 FWS) Maritime Weapons System Evaluation Program (WSEP) test missions that involve the use of multiple types of live and inert munitions (bombs and missiles) detonated above, at, or slightly below the water surface; (2) Advanced Systems Employment Project actions that involve deployment of a variety of pods, air-to-air missiles, bombs, and other munitions (all inert ordnances in relation to EGTTR); (3) Air Force Special Operations Command (AFSOC) training, including air-to-surface gunnery missions involving firing live gunnery rounds at targets on the water surface in EGTTR, small diameter bomb (SDB) and Griffin/Hellfire missile training involving the use of live missiles and SDBs in the EGTTR against small towed boats, and CV–22 tiltrotor aircraft training involving the firing of 0.50 caliber (cal.)/7.62 mm ammunition at flares floating on the EGTTR water surface; (4) 413th Flight Test Squadron (FLTS) Precision Strike Program (PSP) activities involving firing munitions at flare targets on the EGTTR water surface and Stand-Off Precision Guided Munitions (SOPGM) testing involving captive-carry, store separation, and weapon employment tests; (5) 780th Test Squadron (TS) activities involving precision strike weapon (PSW) test missions (launch of munitions against targets in the EGTTR) and Longbow Littoral Testing (data collection on tracking and impact ability of the Longbow missile on small boats); (6) 96th Test Wing Inert Missions (developmental testing and evaluation for wide variety of air-delivered weapons and other systems using inert bombs); and (7) 96 Operations Group (OG) missions, which involve the support of air-to-surface missions for several user groups within EGTTR.

During these activities, ordnances may be delivered by multiple types of aircraft, including bombers and fighter aircraft. The actions include air-to-ground missiles (AGM); air intercept missiles (AIM); bomb dummy units (BDU); guided bomb units (GBU); projectile gun units (PGU); cluster bomb units (CBU); wind-corrected munitions dispensers (WCMD); small-diameter bombs (SDB) and laser small diameter bombs (LSDB); high explosive incendiary units (HEI); joint direct attack munitions (JDAM) and laser joint direct attack munitions (LJDAM); research department explosives (RDX); joint air-to-surface stand-off missiles (JASSM); high altitude anti-submarine warfare weapons (inert); high-speed maneuverable surface targets; and gunnery rounds. Net explosive weight (NEW) of the live munitions ranges from 0.1 to 945 pounds (lb).

The EGTTR testing and training missions are classified as military readiness activities and involve the firing or dropping of air-to-surface weapons. Depending on the requirements of a given mission, munitions may be inert (contain no or very little explosive charges) or live (contain explosive charges). Live munitions may detonate above, at, or slightly below the water surface. In most cases, missions consisting of live bombs, missiles, and rockets that detonate at or below the water surface will occur at a site in W–151A that has been designated specifically for these types of activities. Typically, test data collection is conducted from an instrumentation barge known as the Gulf Range Armament Test Vessel (GRATV) anchored on-site, which provides a platform for cameras and weapon-tracking equipment. Therefore, the mission area is referred to as the GRATV target location. Alternative site locations may be selected, if necessary, within a 5-mile radius around the GRATV point. Missions that involve inert munitions and in-air detonations may occur anywhere in the EGTTR but are typically conducted in W–151.

For this LOA, descriptions of mission activities that involve in-water detonations include a section called Mission-Day Categorization. This subsection describes the mission-day scenario used for acoustic modeling and is based on the estimated number of weapons released per day. This approach is meant to satisfy NMFS' requests to analyze and assess acoustic impacts associated with accumulated energy from multiple detonations occurring over a 24-hour timeframe. Eglin AFB used all available information to develop each mission-day scenario, including historical release records; however, these scenarios may not represent exact weapon releases because military needs and requirements are in a constant state of flux. The mission-day categorizations provide high-, medium-, and low-intensity mission-day scenarios for some groups and an average scenario for other groups. Mission-day scenarios vary for each user group and are described in the following sections.

Note that additional testing and training activities are planned for the EGTTR that will not result in any acoustic impacts to marine mammals and, therefore, not require any acoustic analyses. Examples include the firing of 0.50 caliber and 7.62 gunnery rounds that do not contain explosives, use of airburst-only detonations, and operations involving simulated weapons delivery. Those activities are described in detail in the Application but are not discussed here.

86th Fighter Weapons Squadron Maritime Weapons System Evaluation Program

The 86 FWS would continue to use multiple types of live and inert munitions in the EGTTR against small boat targets for the Maritime WSEP Operational Testing Program. The purpose of the testing is to continue the development of tactics, techniques and procedures (TTP) for USAF strike aircraft to counter small maneuvering surface vessels in order to better protect vessels or other assets from small boat threats.

Proposed aircraft and munitions associated with Maritime WSEP activities are shown in Table 1. Because the focus of the tests would be weapon/target interaction, no particular aircraft would be specified for a given test as long as it met the delivery requirements.

TABLE 1—MARITIME WSEP MUNITIONS AND EXAMPLE AIRCRAFT

Munitions	Aircraft
AGM–114 (Hellfire)	F–15 fighter aircraft.
AGM–176 (Griffin)	F–16 fighter aircraft.
AGM–65 (Mavericks)	F–18 fighter aircraft.
AIM–9X	F–22 fighter aircraft.
BDU–56	F–35 fighter aircraft.
CBU–105 (WCMD)	AC–130 gunship.
GBU–12/GBU–54	A–10 fighter aircraft.
GBU–10/GBU–24	B–1 bomber aircraft.
GBU–31	B–52 bomber aircraft.
GBU–38	B–2 bomber aircraft.
PGU–13/B	MQ–1.
PGU–27	MQ–9.
2.75 in Rockets.	
7.62mm/50 Cal.	
GBU–39 (Laser SDB).	
GBU–53 (SDB II).	

AGM = air-to-ground missile; AIM = air intercept missile; BDU = Bomb, Dummy Unit; GBU = Guided Bomb Unit; PGU = Projectile Gun Unit; CBU = Cluster Bomb Unit; WCMD = Wind-Corrected Munitions Dispenser; mm = millimeters; SDB = Small Diameter Bomb.

Live munitions would be set to detonate either in the air, instantaneously upon contact with a target boat, or after a slight delay (up to 10 millisecond) after impact, which would correspond to a water depth of about 5 to 10 ft. The annual number, height or depth of detonation, explosive material, and net explosive weight (NEW) of each live munition associated with Maritime WSEP is provided in Table 2. The quantity of live munitions tested is considered necessary to provide the intended level of tactics and weapons evaluation, including a number of replicate tests sufficient for an acceptable confidence level regarding munitions capabilities.

TABLE 2—ANNUAL MARITIME WSEP MUNITIONS USE IN THE EGTTR

Type of munition	Number of munitions	Detonations scenario	Warhead—explosive material	NEW (lbs)
GBU–10 or GBU–24	2	Surface or Subsurface.	MK–84—Tritonal	945
GBU–49	4	Surface	Tritonal	300
JASSM	4	Surface	Tritonal	240
GBU–12/–54 (LJDAM)/–38/–32 (JDAM)	10	Surface or Subsurface.	MK–82—Tritonal	192
AGM–65 (Maverick)	8	Surface	WDU–24/B penetrating blast-fragmentation warhead.	86
CBU–105	4	Airburst	10 BLU–108 submunitions with 4 projectiles, parachute, rocket motor & altimeter. 10.69 lbs NEW/submunition (includes 2.15 lbs/projectile).	107.63
GBU–39 (LSDB)	4	Airburst, Surface, or Subsurface.	AFX–757 (Insensitive munition)	37
AGM–114 (Hellfire)	30	Airburst or Surface, Subsurface.	High Explosive Anti-Tank (HEAT) tandem anti-armor metal augmented charge.	29
GBU–53 (SDB II)	4	Airburst, Surface or Subsurface.	PBX–N–109 Aluminized Enhanced Blast, Scored Frag Case, Copper Shape Charge.	22.84
AIM–9X	2	Surface	PBXN–3	7.9
AGM–176 (Griffin)	10	Airburst or Surface	Blast fragmentation	4.58
Rockets (including APKWS)	100	Surface	Comp B–4 HEI	10
PGU–13 HEI 30 mm	1,000	Surface	30 x 173 mm caliber with aluminized RDX explosive. Designed for GAU–8/A Gun System.	0.1
GBU–10	21	Inert	N/A	N/A
GBU–12	27	Inert	N/A	N/A
GBU–24	17	Inert	N/A	N/A
GBU–31	6	Inert	N/A	N/A
GBU–38	3	Inert	N/A	N/A
GBU–54	16	Inert	N/A	N/A
BDU–56	13	Inert	N/A	N/A
AIM–9X	3	Inert	N/A	N/A
PGU–27	46,000	Inert	N/A	N/A

AGM = air-to-ground missile; AIM = air intercept missile; BDU = Bomb, Dummy Unit; CBU = Cluster Bomb Unit; GBU = Guided Bomb Unit; HEI = high explosive incendiary; lbs = pounds; LJDAM = laser joint direct attack munition; LSDB = Laser Small Diameter Bombs; MK = mark; mm = millimeters; NEW = Net Explosive Weight; PGU = Projectile Gun Unit; RDX = research department explosive; SDB = Small Diameter Bomb.

Mission-day categorizations of weapon releases listed in Table 3 were developed based on historical mission data, project engineer input, and future Maritime WSEP requirements. Categories of missions were grouped first using historical weapon releases per day (refer to Maritime Strike and Maritime WSEP annual reports for 2015 and 2016). Next, the most recent weapons evaluation needs and requirements were considered to develop three different scenarios: Categories A, B, and C. Mission-day Category A represents munitions with larger NEW (192 to 945 pounds) with both surface and subsurface detonations. This category includes future requirements and provides flexibility for the military mission. To date, Category A levels of activity have not been conducted under the 86 FWS Maritime WSEP missions and is considered a worst-case scenario. Category B represents munitions with medium levels of NEW (20 to 86 pounds) including surface and subsurface detonations. Category B was developed using actual levels of weapon releases during Maritime WSEP missions (refer to Maritime WSEP annual reports for 2015 and 2016). Category C represents munitions with smaller NEW (0.1 to 13 pounds) and includes surface detonations only.

TABLE 3—MARITIME WSEP MUNITIONS CATEGORIZED AS REPRESENTATIVE MISSION DAYS

Mission category	Munition	NEW (lbs)	Detonation type	Munitions per day	Mission days/ year	Total Munitions/ year
A	GBU–10/–24/–31	945	Subsurface (10-ft depth)	1	2	2
	GBU–49	300	Surface	2		4
	JASSM	240	Surface	2		4
	GBU–12/-54 (LJDAM)/–38/–32 (JDAM)	192	Subsurface (10-ft depth)	5		10
B	AGM–65 (Maverick)	86	Surface	2	4	8
	GBU–39 (SDB)	37	Surface	1		4
	AGM–114 (Hellfire)	20	Subsurface (10-ft depth)	5		20
C	AGM–176 (Griffin)	13	Surface	5	2	10
	2.75 rockets	12	Surface	50		100
	AIM–9X	7.9	Surface	1		2
	PGU–12 HEI 30 mm	0.1	Surface	500		1,000

AGM = air-to-ground missile; CBU = Cluster Bomb Unit; GBU = Guided Bomb Unit; HEI = high explosive incendiary; JDAM = Joint Direct Attack Munition; LJDAM = Laser Joint Direct Attack Munition; lbs = pounds; NEW = net explosive weight; PGU = Projectile Gun Unit; mm = millimeter; SDB = Small Diameter Bomb.

Advanced Systems Employment Project

The planned Advanced Systems Employment Project (ASEP) action includes evaluating upgrades to numerous research and development, as well as USAF hardware and software, initiatives. F16, F15E, and BAC1–11 aircraft would be used to deploy a variety of pods, air-to-air missiles, bombs, and other munitions. Many of the missions are conducted over Eglin land ranges. However, inert instrumented MK–84 Joint Direct Attack Munition (JDAM) bombs would be expended in W–151 under the planned action. Bombs would be dropped on target boats located 20 to 25 miles offshore. A maximum of 12 over-water missions could be conducted annually, although the number could be as low as 4. There would be no live ordnance associated with ASEP actions in the EGTTR.

Air Force Special Operations Command Training

The USAF Special Operations Command (AFSOC) conducts various training activities with multiple types of munitions in nearshore waters of the EGTTR (W–151). Training activities include air-to-surface gunnery and small diameter bomb/Griffin/Hellfire missile proficiency training. The following subsections describe the planned actions included in Eglin AFB's LOA request.

Air-to-surface gunnery missions involve firing of live gunnery rounds from the AC–130 aircraft at targets on the water surface in the EGTTR.

After target deployment, the firing sequence is initiated. A typical gunship mission lasts approximately five hours without air-to-air refueling, and six hours when refueling is accomplished. A typical mission includes 1.5 to 2 hours of live fire. This time includes clearing the area and transiting to and from the range. Actual firing activities typically do not exceed 30 minutes. The number and type of munitions deployed during a mission varies with each type of mission flown. The 105-mm TR variants are used during nighttime training. Live fire events are continuous, with pauses during the firing usually well under a minute and rarely from two to five minutes.

Gunnery missions could occur any season of year, during daytime or nighttime hours. The quantity of live rounds expended is based on estimates provided by AFSOC regarding the annual number of missions and number of rounds per mission. The 105 mm FU rounds would typically be used during daytime missions, while the 105 mm TR variants would be used at night.

On March 5, 2014, NMFS issued a 5-year LOA in accordance with the MMPA for AFSOC's air-to-surface gunnery activities which is currently valid through March 4, 2019. This LOA request would supersede that authorization for AC–130 air-to-surface gunnery activities for another five years (2018–2023); it incorporates the updated approach to analysis requested by NMFS. No significant changes to these mission activities are anticipated in the foreseeable future. Table 4 shows the annual number of missions and gunnery rounds currently authorized under the existing LOA which will be carried forward for this LOA request.

TABLE 4—SUMMARY OF ANNUAL AFSOC AC–130 GUNNERY OPERATIONS

Munition	NEW (lbs)	Total munitions/year	Number of daytime missions	Number of nighttime missions
105 mm HE (FU)	4.7	750	25	45
105 mm HE (TR)	0.35	1,350	.....	.....
40 mm HE	0.87	4,480	.....	.....
30 mm HE	0.1	35,000	.....	.....
25 mm HE	0.067	39,200	.....	.....
Total	.....	80,780	.....	.....

HE = High Explosive; lbs = pounds; mm = millimeter; NEW = net explosive weight; TR = Training Round; FU = Full Up.

Two mission-day scenarios were developed to represent the average number of gunnery rounds expended during daytime and nighttime AC–130 air-to-surface gunnery missions; category D for daytime missions and category E for nighttime missions. The mission-day scenarios developed for AC–130 air-to-surface gunnery missions are shown in Table 5.

TABLE 5—AC–130 GUNNERY OPERATIONS CATEGORIZED AS REPRESENTATIVE MISSION DAYS

Mission category	Munition	NEW (lbs)	Detonation type	Munitions per day	Mission days/year	Total munitions/year
D	105 mm HE (FU)	4.7	Surface	30	25	750
	40 mm HE	0.87	Surface	64	.....	1,600
	30 mm HE	0.1	Surface	500	.....	12,500
	25 mm HE	0.067	Surface	560	.....	14,000
E	105 mm HE (TR)	0.35	Surface	30	45	1,350
	40 mm HE	0.87	Surface	64	.....	2,880
	30 mm HE	0.1	Surface	500	.....	22,500
	25 mm HE	0.067	Surface	560	.....	25,200
Total	.....	.....	.....	.....	70	80,780

HE = High Explosive; lbs = pounds; mm = millimeter; NEW = net explosive weight; TR = Training Round; FU = Full Up.

413th Flight Test Squadron

The United States Special Operations Command (SOCOM) has requested the 413th Flight Test Squadron (413 FLTS) to demonstrate the feasibility and capability of the Precision Strike Package and the Stand-Off Precision Guided Munitions (SOPGM) missile system on the AC–130 aircraft. SOCOM, in conjunction with A3 Operations at Wright-Patterson AFB, is fielding the new AC–130J for flight characterization, as well as testing and evaluation. AFSOC is integrating some of the same weapons on the AC–130W. Therefore, the activities described below for the 413 FLTS may involve either of these aircraft variants.

413 FLTS mission day scenarios were developed based on the number of mission days planned annually. Up to eleven mission days are planned for 413 FLTS operations annually. The total number of munitions were averaged over each day and are shown in Table 6. All missions would be conducted shoreward of the continental shelf break/200 m isobath as shown in Figure 1–7 in the Application).

TABLE 6—413 FLTS PRECISION STRIKE PACKAGE GUNNERY TESTING CATEGORIZED AS REPRESENTATIVE MISSION DAYS

Mission category	Munition	NEW (lbs)	Detonation type	Munitions per day	Mission days/year	Total munitions/ year
F	30 mm	0.1	Surface	33	3	99
G	105 mm FU	4.7	Surface	15	4	60
H	105 mm TR	0.35	Surface	15	4	60

FU = full up; lbs = pounds; mm = millimeter; NEW = net explosive weight; TR = Training Round.

Stand off precision guided missiles (SOPGMs) are planned for use in testing feasibility of these missiles on AC–130 aircraft. Weapon employment missions would be flown using any combination of inert and/or live weapons for a final end-to-end check of the system. Table 7 shows the mission-day scenarios and annual number of munitions expended annually for SOPGM testing. The 413 FLTS provided the number of munitions required over a span of four years. The numbers in the table represent the average per year (total number of munitions divided by four).

TABLE 7—413 FLTS SOPGM ANNUAL TESTING CATEGORIZED AS REPRESENTATIVE MISSION DAYS

Mission category	Munition	NEW (lbs)	Detonation type	Munitions per day	Mission days/year	Total munitions/ year
I	AGM–176 (Griffin)	4.58	Surface	5	2	10
J	AGM–114 (Hellfire)	29	Surface	5	2	10
K	GBU–39 (SDB I)	36	Surface	3	2	6
L	GBU–39 (LSDB)	36	Surface	5	2	10

AGM = Air-To-Ground Missile; GBU = Guided Bomb Unit; lbs = pounds; LSDB = Laser Small Diameter Bomb; SDB = Small Diameter Bomb.

780th Test Squadron

Testing activities conducted by the 780th Test Squadron (780 TS) include Precision Strike Weapon, Longbow missile littoral testing, and several other various future actions.

The U.S. Air Force Life Cycle Management Center and U.S. Navy, in cooperation with the 780 TS, conducts Precision Strike Weapon (PSW) test missions utilizing resources within the Eglin Military Complex, including sites in the EGTTR. The weapons used in testing are the AGM–158 A and B (Joint Air-to-Surface Standoff Missile (JASSM), and the GBU–39/B (SDB I). PSW munitions are shown in Table 8.

TABLE 8—SUMMARY OF ANNUAL PRECISION STRIKE WEAPON TESTS

Munitions	Number of live tests/ year	Total number of live munitions	Number of inert tests/ year	Total number of inert munitions
AGM–158 (JASSM)	2	2	4	4
GBU–39 (SDB I) Single Launch	2	2	4	4
GBU–39 (SDB I) Simultaneous Launch	2	4	4	8

JASSM = Joint Air-To-Surface Stand-Off Missile; SDB = Small Diameter Bomb.

In addition to the above description, future (Phase 2) testing of the SDB is planned by the Air Force Operational Test and Evaluation Center (AFOTEC) as shown in Table 9.

TABLE 9—SUMMARY OF PHASE 1 AND PHASE 2 PRECISION STRIKE WEAPON LIVE TESTS

Weapon	NEW (lbs)	Number of live munitions released	Number of inert munitions released
AGM–158 (JASSM)	240	2	4
GBU–39 (SDB I)	37	2	4
GBU–39 (SDB I) Double Shot	74	2	4
GBU–53 (SDB II)	22.84	2	1

The 780 TS/OGMT missions have been categorized based on the number of weapons released per day, assuming three mission days are planned annually. Representative mission days are shown in Table 10.

TABLE 10—780 TS/OGMT PRECISION STRIKE WEAPON TESTING CATEGORIZED AS REPRESENTATIVE MISSION DAYS

Mission category	Munition	NEW (lbs)	Detonation type	Munitions per day	Mission days/year	Total munitions/ year
M	AGM–158 (JASSM)	240	Surface	2	1	2
N	GBU–39 (SDB I)	37	Surface	2	1	2
	GBU–39 (SDB I) Double Shot *	74	Surface	2		2
O	GBU–53 (SDB II)	22.84	Surface	2	1	2

AGM = Air-To-Ground Missile; GBU = Guided Bomb Unit; JASSM = Joint Air-To-Surface Standoff Missile; lbs = pounds; SDB = Small Diameter Bomb.
* NEW is doubled for each simultaneous launch.

The 780 TS plans to conduct other various testing activities that involve targets on the water surface in the EGTTR. Many of the missions would target small boats or barges. Weapons would primarily be delivered by aircraft, although a rail gun would be used for one test. Live warheads would be used for some missions, while others would involve inert warheads with a live fuse (typically contains a very small NEW). Total future munitions for 780 TS are listed in Table 11.

TABLE 11—780 TS ANNUAL MUNITIONS, OTHER FUTURE ACTIONS

Munition	NEW (lbs)	Number of releases	Planned location	Target type	Detonation type
Joint Air-Ground Missile ..	27.41	2	W–151 (subareas A, S5, and S6).	HSMST or Boston Whaler type boat.	1—Point Detonation 1—Airburst.
Navy Rail Gun	Inert	19	W–151	Barge	Penetrating Rod.
	1	5	W–151	Barge	Airburst.
JDAM—Extended Range	Inert	3	W–151	Water surface (2) Barge (1).	Inert.
Navy HAAWC	Inert	2	W–151	Water surface	Inert.
Laser SDB (live fuse only)	0.4	4	W–151A	Small boats	Airburst or Surface.
SDB II Guided Test Vehicle (live fuse only).	0.4	4	W–151A	Small boats	Surface.

HAAWC = High Altitude Anti-Submarine Warfare Weapon Capability; HSMT = High Speed Maneuverable Surface Target; JDAM = Joint Direct Attack Munition; NEW = net explosive weight; SDB = Small Diameter Bomb.

The 780 TS/OGMT future missions primarily consist of one-day test events for each type of munition. Inert munitions and munitions being detonated as airbursts were not included in the development of these scenarios because no in-water acoustic impacts are anticipated. Therefore representative mission days were developed for live munitions resulting in surface detonations, as shown in Table 12.

TABLE 12—780 TS OTHER FUTURE ACTIONS CATEGORIZED AS REPRESENTATIVE MISSION DAYS

Mission category	Munition	NEW (lbs)	Detonation type	Munitions per day	Mission days/year	Total munitions/year
P	Joint Air-Ground Missile	27.41	Surface	1	1	1
Q	Laser SDB (fuse only) and SDB II Guided Test Vehicle (fuse only).	0.4	Surface	2	4	8

HAAWC = High Altitude Anti-Submarine Warfare Weapon Capability; HSMT = High Speed Maneuverable Surface Target; JDAM = Joint Direct Attack Munition; N/A = not applicable; NEW = net explosive weight; SDB = Small Diameter Bomb.

96 Operations Group

The 96 Operations Group (OG), which conducts the 96 TW's primary missions of developmental testing and evaluation of conventional munitions, and command and control systems, anticipates support of air-to-surface missions for several user groups on an infrequent basis. As the organization that oversees all users of Eglin ranges, they have the authority to approve new missions that could be conducted in the EGTTR. Specific details on mission descriptions under this category have not been determined, as this is meant to capture future unknown activities. Subsurface detonations would be at 5 to 10 ft below the surface. Projected annual munitions expenditures and detonation scenarios are listed in Table 13.

TABLE 13—ANNUAL MUNITIONS FOR 96TH OPERATIONS GROUP SUPPORT

Munition	NEW (lbs)	Detonation scenario	Number annual releases
GBU–10 or GBU–24	945	Subsurface	1
AGM–158 (JASSM)	240	Surface	1
GBU–12 or GBU–54	192	Subsurface	1
AGM–65 (Maverick)	86	Surface	2
GBU–39 (SDB I or LSDB)	37	Subsurface	4
AGM–114 (Hellfire)	20	Subsurface	20
105 mm full-up	4.7	Surface	125
40 mm	0.9	Surface	600
Live fuse	0.4	Surface	200
30 mm	0.1	Surface	5,000

AGM = air-to-ground missile; GBU = Guided Bomb Unit; lbs = pounds; LSDB = Laser Small Diameter Bomb; SDB = Small Diameter Bomb.

The 96 OG future missions have been categorized based on the number of weapons released per day, instead of treating each weapon release as a separate event. This approach is meant to satisfy NMFS requests for analysis and modeling of accumulated energy from multiple detonations over a 24-hour timeframe. Eglin AFB used all available information to determine these daily estimates, including historic release reports; however, these scenarios may not represent exact weapon releases because military needs and requirements are in a constant state of flux. The mission day scenarios for 96 OG annually are shown in Table 14.

Categories of missions for 96 OG were grouped (similar to Maritime WSEP) first using historical weapon releases per day. Next, the most recent weapons evaluation needs and requirements were considered to develop three different

scenarios: Categories R, S, and T. Mission-day Category R represents munitions with larger NEW (192 to 945 pounds) and both surface and subsurface detonations. This category includes future requirements and provides flexibility for the military mission.

TABLE 14—96 OG FUTURE MISSIONS CATEGORIZED AS REPRESENTATIVE MISSION DAYS

Mission category	Munition	NEW (lbs)	Detonation type	Munitions per day	Mission days/year	Total munitions/ year
R	GBU–10/–24	945	Subsurface (10-ft depth)	1	1	1
	AGM–158 (JASSM)	240	Surface	1		1
	GBU–12 or GBU–54	192	Subsurface (10-ft depth)	1		1
S	AGM–65 (Maverick)	86	Surface	1	2	2
	GBU–39 (SDB I or LSDB)	37	Subsurface	2		4
	AGM–114 (Hellfire)	20	Subsurface (10-ft depth)	10		20
T	105 mm full-up	4.7	Surface	13	10	130
	40 mm	0.9	Surface	60		600
	Live fuse	0.4	Surface	20		200
	30 mm	0.1	Surface	500		5,000

AGM = air-to-ground missile; GBU = Guided Bomb Unit; HEI = high explosive incendiary; JDAM = Joint Direct Attack Munition; LJDAM = Laser Joint Direct Attack Munition; LSDB = Laser Small Diameter Bomb; lbs = pounds; PGU = Projectile Gun Unit; mm = millimeter; SDB = Small Diameter Bomb.

Planned mitigation, monitoring, and reporting measures are described in detail later in this document (please see Mitigation and Monitoring and Reporting).

Comments and Responses

A notice of receipt of Eglin AFB's application published in the **Federal Register** on August 24, 2017 (82 FR 40141). NMFS published a proposed rule in the **Federal Register** on December 27, 2017 (82 FR 61372). During the 30-day public comment period on the proposed rule, NMFS received comments from the Marine Mammal Commission (Commission) and seven members of the general public.

Comment 1: The Commission noted that in some instances, the mission area would be determined to be clear of marine mammals at least 30 minutes, and likely longer, before the munitions are detonated. The monitoring vessels and aircraft would move to the periphery of the human safety zone, which the application indicated would be approximately 24 km from the detonation location. In other instances, the mission aircraft would be conducting monitoring during the approximately 15 minutes it takes to fly two orbits around the mission area at an altitude of up to 6,000 ft Given those large areas and high aircraft altitudes, the Commission does not believe that the USAF would be able to monitor effectively for marine mammals entering the mortality and injury zones particularly after the mission area has been cleared and during the timeframe prior to detonation.

NMFS Response: The USAF has successfully employed similar protocols in EGTTR exercises as required under previously issued incidental take authorizations. Past monitoring reports, described in more detail in the Effects of Specified Activities on Marine Mammals and their Habitat section, have not recorded any instances of take over the last five years in past. While the distances from the detonation area are large, these distances are essential to provide protection and safety of humans, both military and civilian, that may be in or near the mission area. The USAF agrees that observing animals from aircraft can be challenging but believes that these pre-mission flights offer an ability to detect marine mammals. Aerial surveys conducted at higher altitudes (up to 6,000 ft) would use optical sensors and instrumentation on the aircraft, which is much more effective than the naked eye. The LOA application summarizes the capabilities for these sensors and provides a figure example of what can be seen with the instrumentation.

Comment 2: The Commission has been recommending that the USAF's mitigation measures be supplemented with passive acoustic monitoring (PAM) since 2010 and that fulfilling the monitoring requirements under section 101(a)(5) of the MMPA, in this case the PAM study, should be made a priority in addition to developing real-time mitigation capability via PAM. For these reasons, the Commission recommends that NMFS compel the USAF to prioritize (1) completing both aspects of its PAM study and (2) further investigating ways to supplement its mitigation measures with the use of real-time PAM devices.

NMFS Response: NMFS has engaged in multiple discussions with the USAF about the implementation of PAM. However, human safety concerns and the inability to make mission go/no-go decisions in a timely manner are the most immediate obstacles for the USAF implementing PAM as part of the suite of mitigation measures during live weapon missions in the EGTTR. For safety purposes during live air-to-surface missions in the EGTTR, a large area of the Gulf of Mexico is closed off to human activity. The human safety zone corresponds to the weapon safety footprint. The size of the closure area varies depending on the weapons being dropped, the type of aircraft being used, and the specific release parameters (direction, altitude, airspeed, etc.) requested by the mission group, but it always encompasses the area occupied by the instrumentation barge (GRATV). Typically, this footprint where personnel are restricted ranges between a 9-nautical mile (nmi) radius up to a 12-nmi radius around the GRATV. As part of PAM, biologists generally deploy an array of hydrophones, listen for vocalizations from a nearby boat, and use software to triangulate an animal's general location. The ability to execute this requires multiple hydrophones lined up in a carefully determined array or fence configuration with a trained biologist in close proximity to the hydrophones. Alternatively, the biologist could be stationed in a remote location but would require a direct line-of-sight for radio links to transmit the data from the hydrophones. The maximum distance that a remote link could be established is estimated to be about 5 nmi. This would fall inside the human safety zone. Therefore, real-time monitoring for marine mammal vocalizations during a mission is not

considered feasible for human safety concerns.

Even if vocalization data were able to be collected in real time in order to determine presence/absence of marine mammals, a decision to delay or stop a mission without knowing where the animals are in relation to the hydrophones and weapon impact location further contributes to the operational constraints for implementing PAM as mitigation. A vocalizing marine mammal could be detected by the hydrophone while outside any zones of impact. Furthermore, the time it would take to collect and transmit vocalization data to remote computers, run the software to localize vocalizations and estimate the location of the animals has not been tested or verified. With high-priority military missions, the USAF cannot jeopardize Department of Defense objectives on unproven methods and unknown procedures. Therefore, a simplified presence/absence of vocalizations as mitigation strategy would not be considered appropriate for these mission activities. Based on other consultations associated with the 86 FWS for activities in Hawaii, where Navy range assets and expertise are far more developed than in the EGTTR, using PAM for real-time mitigation was determined to not be feasible because of the high level of uncertainty with localizing marine mammals using multiple hydrophones, and making mission-critical decisions to delay or cease activities.

The USAF is supportive of PAM and will conduct a NMFS-approved PAM study as an initial step towards understanding acoustic impacts from underwater detonations. However, given the level of success with current mitigation procedures and the high level of unknowns associated with implementing PAM as part of mitigation procedures for EGTTR activities, the USAF does not believe that using PAM as a real-time mitigation measure is practicable at this time.

Comment 3: The Commission expressed concern about the lack of adequate time to provide public comments as well as the abbreviated timeframes during which NMFS is able to address public comments. The Commission recommended that NMFS ensure that it publishes and finalizes proposed incidental harassment authorizations sufficiently before the planned start date of the proposed activities to ensure full consideration is given to all comments received.

Response: NMFS gave the standard 30-day notice for public comment. NMFS also acknowledges the importance of providing MMPA incidental take authorization in a timely (and sometimes expedited) manner for planned activities when the necessary findings are made.

Comment 4: Three citizens asserted that marine life in the Gulf of Mexico should not be disturbed or killed and that training activities can be done without injuring animals.

Response: NMFS appreciates the commenters' concern for the marine environment. However, the commenters' assertion that the Navy's activities in the EGTTR will result in the killing or deaths of marine mammals is incorrect. As discussed throughout this rule and in the *Eglin Gulf Test and Training Range Environmental Assessment.* The majority of predicted takes are by Level B harassment (behavioral reactions and TTS), and there are no mortality takes predicted or authorized for any training activities in the study area. Modeling results estimate that there could be up to 11 Level A takes (2 from slight lung injury and 9 from permanent threshold shift (PTS)). These exposure estimates, however, do not take into account the mitigation and monitoring measures which are expected to decrease the potential for impacts.

After careful analysis, NMFS has determined that serious injury is unlikely to result from this activity.

Comment 5: Several citizens wrote that there is a need for greater transparency in the Endangered Species Act (ESA) listings and determination actions.

Response: The purpose of this final rule and associated LOA is not to make species listings determinations but rather to authorize the incidental take of small numbers of marine mammals within a specific geographic region. Furthermore, take of ESA-listed species is not authorized or expected as a result of testing and training activities in the EGTTR.

Description of Marine Mammals in the Area of Specified Activities

There are 21 marine mammal species with potential or confirmed occurrence in the planned activity area. Not all of these species occur in this region during the project timeframe, or the likelihood of occurrence is very low. The ''Description of Marine Mammals in the Area of the Specified Activities'' section included in the proposed rule (82 FR 61372; December 12, 2018) and sections 3 and 4 of the USAF's application summarize available information regarding status and trends, distribution and habitat preferences, and behavior and life history, of the potentially affected species. These descriptions have not changed and are incorporated here by reference. Additional information regarding population trends and threats may be found in NMFS' Stock Assessment Reports (SAR; *www.nmfs.noaa.gov/pr/sars/*) and more general information about these species (*e.g.,* physical and behavioral descriptions) may be found on NMFS's website (*www.nmfs.noaa.gov/pr/species/mammals/*). Additional information may be found in the USAF 96 CEG/CEIEA EA. Of the 21 species that occur in the northern Gulf of Mexico, two species occur in densities great enough to warrant inclusion in this rule (Table 15). The final list of species is based on summer density estimates, a conservative range-to-effects, and duration of the activity.

TABLE 15—SPECIES AUTHORIZED FOR TAKE *

Common name	Scientific name	Stock	ESA/MMPA status; Strategic (Y/N) [1]	Stock abundance (CV, N_{min}, most recent abundance survey) [2]	PBR	Annual M/SI [3]
Superfamily Odontoceti (toothed whales, dolphins, and porpoises)						
Family Delphinidae						
Common Bottlenose dolphin.	*Tursiops truncatus*	Choctawatchee Bay	-/-:Y	179 (0.04,173, 2007)	1.7	3.4 (0.99)
		Pensacola/East Bay	-/-:Y	33 (0.80, UNK, 1993)	UND	UND
		St. Andrew Bay	-/-:Y	124 (0.21, UNK, 1993) ..	UND	UND

TABLE 15—SPECIES AUTHORIZED FOR TAKE *—Continued

Common name	Scientific name	Stock	ESA/MMPA status; Strategic (Y/N) [1]	Stock abundance (CV, N_{min}, most recent abundance survey) [2]	PBR	Annual M/SI [3]
		Gulf of Mexico Northern Coastal.	-/-:N	7,185 (0.21, 6,044, 2012).	60	21 (0.66)
		Northern Gulf of Mexico Continental Shelf.	-/-:N	51,192 (0.10, 46,926, 2012).	469	56 (0.42)
		Northern Gulf of Mexico Oceanic.	-/-;N	5,806 (0.39, 4,230, 2009).	42	6.5 (0.65)
Atlantic spotted dolphin	*Stenella frontalis*	Northern Gulf of Mexico	-/-:N	37,611 (0.28, UNK, 2004).	UND	42 (0.45)

* Hayes *et al.* 2017.

[1] Endangered Species Act (ESA) status: Endangered (E), Threatened (T)/MMPA status: Depleted (D). A dash (-) indicates that the species is not listed under the ESA or designated as depleted under the MMPA. Under the MMPA, a strategic stock is one for which the level of direct human-caused mortality exceeds PBR or which is determined to be declining and likely to be listed under the ESA within the foreseeable future. Any species or stock listed under the ESA is automatically designated under the MMPA as depleted and as a strategic stock.

[2] NMFS marine mammal stock assessment reports online at: *www.nmfs.noaa.gov/pr/sars/.* CV is coefficient of variation; Nmin is the minimum estimate of stock abundance. In some cases, CV is not applicable [explain if this is the case].

[3] These values, found in NMFS's SARs, represent annual levels of human-caused mortality plus serious injury from all sources combined (*e.g.,* commercial fisheries, ship strike). Annual M/SI often cannot be determined precisely and is in some cases presented as a minimum value or range. A CV associated with estimated mortality due to commercial fisheries is presented in some cases.

Marine Mammal Hearing

Hearing is the most important sensory modality for marine mammals underwater and exposure to anthropogenic sound can have deleterious effects. To appropriately assess the potential effects of exposure to sound, it is necessary to understand the frequency ranges marine mammals are able to hear. Current data indicate that not all marine mammal species have equal hearing capabilities (*e.g.,* Richardson *et al.,* 1995; Wartzok and Ketten, 1999; Au and Hastings, 2008). To reflect this, Southall *et al.* (2007) recommended that marine mammals be divided into functional hearing groups based on directly measured or estimated hearing ranges on the basis of available behavioral response data, audiograms derived using auditory evoked potential techniques, anatomical modeling, and other data. Note that no direct measurements of hearing ability have been successfully completed for mysticetes (*i.e.,* low-frequency cetaceans). Subsequently, NMFS (2016) described generalized hearing ranges for these marine mammal hearing groups. Generalized hearing ranges were chosen based on the approximately 65 dB threshold from the normalized composite audiograms, with the exception for lower limits for low-frequency cetaceans where the lower bound was deemed to be biologically implausible and the lower bound from Southall *et al.* (2007) retained. The hearing groups and the associated frequencies are indicated below (note that these frequency ranges correspond to the range for the composite group, with the entire range not necessarily reflecting the capabilities of every species within that group):

- Low-frequency cetaceans (mysticetes): Generalized hearing is estimated to occur between approximately 7 Hz and 35 kHz, with best hearing estimated to be from 100 Hz to 8 kHz;
- Mid-frequency cetaceans (larger toothed whales, beaked whales, and most delphinids): Generalized hearing is estimated to occur between approximately 150 Hz and 160 kHz, with best hearing from 10 to less than 100 kHz;
- High-frequency cetaceans (porpoises, river dolphins, and members of the genera Kogia and Cephalorhynchus; including two members of the genus Lagenorhynchus, on the basis of recent echolocation data and genetic data): generalized hearing is estimated to occur between approximately 275 Hz and 160 kHz.
- Pinnipeds in water; Phocidae (true seals): Generalized hearing is estimated to occur between approximately 50 Hz to 86 kHz, with best hearing between 1–50 kHz;
- Pinnipeds in water; Otariidae (eared seals): Generalized hearing is estimated to occur between 60 Hz and 39 kHz, with best hearing between 2–48 kHz.

The pinniped functional hearing group was modified from Southall *et al.* (2007) on the basis of data indicating that phocid species have consistently demonstrated an extended frequency range of hearing compared to otariids, especially in the higher frequency range (Hemilä *et al.,* 2006; Kastelein *et al.,* 2009; Reichmuth and Holt, 2013).

Two marine mammal species (common bottlenose and Atlantic spotted dolphins) have the reasonable potential to co-occur with the planned survey activities. Both species are classified as mid-frequency cetaceans.

Effects of Specified Activities on Marine Mammals and Their Habitat

In the *Potential Effects of Specified Activities on Marine Mammals* section of the proposed rule (82 FR 61372; December 12, 2017), we included a qualitative discussion of the different ways that activities in the EGTTR may potentially affect marine mammals without consideration of mitigation and monitoring measures.

Previous Monitoring Results

NMFS has previously issued IHAs and an LOA to cover mission activities in the EGTTR. For these missions, Eglin AFB conducted required monitoring activities and submitted monitoring reports. Between August 2013 and March 2014 nine maritime strike operations testing missions were conducted in the EGTTR and no takes were recorded. In calendar year 2014, ten air-to-surface (A–S) gunnery missions were conducted with no recorded takes. During 2015, eight A–S gunnery missions, and eight WSEP missions were conducted (only 4 of these missions used live munitions). No takes of protected species were recorded. For calendar year 2016, two air-to-surface (A–S) gunnery missions, eight WSEP missions, and two PSW missions were conducted with no takes recorded by observers. A report on 2017 EGTTR monitoring activities is currently under development.

While no mortality, injury or take of marine mammals was recorded during these exercises, animals were occasionally observed during pre-

mission surveys on multiple mission days. However, proper measures were taken (delay of missions while waiting on marine mammals to clear the area) to ensure no marine mammals were in the area during the mission. Monitoring reports containing more detailed information may be found at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-military-readiness-activities.*

Estimated Take

This section provides the number of incidental takes, by stock, authorized through this final rule, which informs both NMFS' consideration of the negligible impact determination.

For this military readiness activity, 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).

Authorized takes would primarily be by Level B harassment, as use of explosive sources has the potential to result in disruption of behavioral patterns and TTS for individual marine mammals. There is also some potential for auditory injury and tissue damage (Level A harassment) to result. The planned mitigation and monitoring measures are expected to minimize the severity of such taking to the extent practicable. As described previously, no mortality is anticipated or authorized for this activity. Below we describe how the take is estimated.

Described in the most basic way, we estimate take by considering: (1) Acoustic thresholds above which NMFS believes the best available science indicates marine mammals will be behaviorally harassed or incur some degree of permanent hearing impairment; (2) the area or volume of water that will be ensonified above these levels in a day; (3) the density or occurrence of marine mammals within these ensonified areas; and, (4) and the number of days of activities. Below, we describe these components in more detail and present the authorized take estimate.

Based on the best available science, NMFS used the acoustic and pressure thresholds indicated in Table 16 to predict the onset of behavioral harassment, PTS, tissue damage, and mortality.

Acoustic Thresholds

Using the best available science, NMFS has developed acoustic thresholds that identify the received level of underwater sound above which exposed marine mammals would be reasonably expected to be behaviorally harassed (equated to Level B harassment) or to incur PTS of some degree (equated to Level A harassment). Thresholds have also been developed to identify the pressure levels above which animals may incur different types of tissue damage from exposure to pressure waves from explosive detonation.

The criteria and thresholds used to estimate potential pressure and energy impacts to marine mammals resulting from detonations were obtained from Finneran and Jenkins (2012). Criteria used to analyze impacts to marine mammals include mortality, harassment that causes or is likely to cause injury (Level A) and harassment that disrupts or is likely to disrupt natural behavior patterns (Level B). Each category is discussed below with additional details provided in Appendix A of the application.

Mortality

Mortality risk assessment may be considered in terms of direct injury, which includes primary blast injury and barotrauma. The potential for direct injury of marine mammals has been inferred from terrestrial mammal experiments and from post-mortem examination of marine mammals believed to have been exposed to underwater explosions (Finneran and Jenkins, 2012; Ketten *et al.,* 1993; Richmond *et al.,* 1973). Actual effects on marine mammals may differ from terrestrial animals due to anatomical and physiological differences, such as a reinforced trachea and flexible thoracic cavity, which may decrease the risk of injury (Ridgway and Dailey, 1972).

Primary blast injuries result from the initial compression of a body exposed to a blast wave, and is usually limited to gas-containing structures (*e.g.,* lung and gut) and the auditory system (U.S. Department of the Navy, 2001b). Barotrauma refers to injuries caused when large pressure changes occur across tissue interfaces, normally at the boundaries of air-filled tissues such as the lungs. Primary blast injury to the respiratory system may be fatal depending upon the severity of the trauma. Rupture of the lung may introduce air into the vascular system, producing air emboli that can restrict oxygen delivery to the brain or heart.

Whereas a single mortality threshold was previously used in acoustic impacts analysis, species-specific thresholds are currently required. Thresholds are based on the level of impact that would cause extensive lung injury to one percent of exposed animals (*i.e.,* an impact level from which one percent of exposed animals would not recover). (Finneran and Jenkins, 2012). The threshold represents the expected onset of mortality, where 99 percent of exposed animals would be expected to survive. Most survivors would have moderate blast injuries. The lethal exposure level of blast noise, associated with the positive impulse pressure of the blast, is expressed as Pa·s and is determined using the Goertner (1982) modified positive impulse equation. This equation incorporates source/animal depths and the mass of a newborn calf for the affected species. The threshold is conservative because animals of greater mass can withstand greater pressure waves, and newborn calves typically make up a very small percentage of any cetacean group.

For the actions described in this LOA, two species are expected to occur within the EGTTR Study Area: The bottlenose dolphin and the Atlantic spotted dolphin. Finneran and Jenkins (2012) provide known or surrogate masses for newborn calves of several cetacean species. For the bottlenose dolphin, this value is 14 kilograms (kg) (31 pounds). Values are not provided for the Atlantic spotted dolphin and, therefore, a surrogate species, the striped dolphin (*Stenella coeruleoalba*), is used. The mass provided for a newborn striped dolphin calf is 7 kg (15 pounds). Impacts analysis for the unidentified dolphin group (assumed to consist of bottlenose and Atlantic striped dolphins) conservatively used the mass of the smaller spotted dolphin. The Goertner equation, as presented in Finneran and Jenkins (2012) is used in the acoustic model to develop impacts analysis in this LOA request. The equation is provided in Table 16.

Injury (Level A Harassment)

Potential injuries that may occur to marine mammals include blast related injury: Gastrointestinal (GI) tract injury and slight lung injury, and irrecoverable auditory damage. These injury categories are all types of Level A harassment as defined in the MMPA.

Slight Lung Injury—This threshold is based on a level of lung injury from which all exposed animals are expected to survive (zero percent mortality) (Finneran and Jenkins, 2012). Similar to

the mortality determination, the metric is positive impulse and the equation for determination is that of the Goertner injury model (1982), corrected for atmospheric and hydrostatic pressures and based on the cube root scaling of body mass (Richmond *et al.,* 1973; U.S. Department of the Navy, 2001b). The equation is provided in Table 16.

Gastrointestinal Tract Injuries—GI tract injuries are correlated with the peak pressure of an underwater detonation. GI tract injury thresholds are based on the results of experiments in the 1970s in which terrestrial mammals were exposed to small charges. The peak pressure of the shock wave was found to be the causal agent in recoverable contusions (bruises) in the GI tract (Richmond *et al.,* 1973, in Finneran and Jenkins, 2012). The experiments found that a peak SPL of 237 dB re 1 µPa predicts the onset of GI tract injuries, regardless of an animal's mass or size. Therefore, the unweighted peak SPL of 237 dB re 1 µPa is used in explosive impacts assessments as the threshold for slight GI tract injury for all marine mammals.

Auditory Damage (PTS)—Another type of injury, permanent threshold shift or PTS, is auditory damage that does not fully recover and results in a permanent decrease in hearing sensitivity. As there have been no studies to determine the onset of PTS in marine mammals, this threshold is estimated from available information associated with TTS. According to research by the Navy (Navy, 2017) PTS thresholds are defined differently for three groups of cetaceans based on their hearing sensitivity: Low frequency, mid-frequency, and high frequency. Bottlenose and Atlantic spotted dolphins that are the subject of the EGTTR acoustic impacts analysis both fall within the mid-frequency hearing category. The PTS thresholds use dual criteria, one based on cumulative SEL and one based on peak SPL of an underwater blast. For a given analysis, the more conservative of the two is applied to afford the most protection to marine mammals. The mid-frequency cetacean criteria for PTS are provided in Table 16.

Non-Injurious Impacts (Level B Harassment)

Two categories of Level B harassment are currently recognized: temporary threshold shift (TTS) and behavioral impacts. Although TTS is a physiological impact, it is not considered injury because auditory structures are temporarily fatigued instead of being permanently damaged.

TTS—Non-injurious effects on marine mammals, such as TTS, are generally extrapolated from data on terrestrial mammals (Southall *et al.,* 2007). Similar to PTS, dual criteria are provided for TTS thresholds, and the more conservative is typically applied in impacts analysis. TTS criteria are based on data from impulse sound exposures when available. According to the most recent data (Navy, 2017) the TTS onset thresholds for mid-frequency cetaceans are based on TTS data from a beluga whale exposed to an underwater impulse produced from a seismic watergun. The TTS thresholds consist of the SEL of an underwater blast weighted to the hearing sensitivity of mid-frequency cetaceans and an unweighted peak SPL measure. The dual thresholds for TTS in mid-frequency cetaceans are provided in Table 16.

Behavioral Impacts

Behavioral impacts refer to disturbances that may occur at sound levels below those considered to cause TTS in marine mammals, particularly in cases of multiple detonations. During an activity with a series of explosions (not concurrent multiple explosions shown in a burst), an animal is expected to exhibit a startle reaction to the first detonation followed by a behavioral response after multiple detonations. At close ranges and high sound levels, avoidance of the area around the explosions is the assumed behavioral response in most cases. Other behavioral impacts may include decreased ability to feed, communicate, migrate, or reproduce, among others. Such effects, known as sub-TTS Level B harassment, are based on observations of behavioral reactions in captive dolphins and beluga whales exposed to pure tones, a different type of noise than that produced from an underwater detonation (Finneran and Schlundt, 2004; Schlundt *et al.,* 2000). For multiple, successive detonations (*i.e.,* detonations happening at the same location within a 24-hour period), the threshold for behavioral disturbance is set 5 dB below the SEL-based TTS threshold, unless there are species- or group-specific data indicating that a lower threshold should be used. This is based on observations of behavioral reactions in captive dolphins and belugas occurring at exposure levels approximately 5 dB below those causing TTS after exposure to pure tones (Finneran and Jenkins, 2012; Finneran and Schlundt, 2004; Schlundt *et al.,* 2000).

Table 16 outlines the explosive thresholds, based on the best available science, used by NMFS to predict the onset of disruption of natural behavior patterns, PTS, tissue damage, and mortality.

Table 16. Explosive Criteria and Thresholds Used for Impact Analyses.

Mortality*	Level A Harassment			Level B Harassment	
	Slight Lung Injury[1]	GI Tract Injury	PTS	TTS	Behavioral
$91.4M^{1/3}\left(1+\frac{D}{10.1}\right)^{1/2}$	$39.1M^{1/3}\left(1+\frac{D}{10.1}\right)^{1/2}$	Unweighted SPL: 237 dB re 1 µPa	Weighted SEL: 185 dB re 1 $\mu Pa^2 \cdot s$	Weighted SEL: 170 dB re 1 $\mu Pa^2 \cdot s$	Weighted SEL: 165 dB re 1 $\mu Pa^2 \cdot s$

Marine Mammal Occurrence

Bottlenose and Atlantic spotted dolphin density estimates used in this document were obtained from Duke University Marine Geospatial Ecology Lab Reports (Roberts *et al.,* 2016) which integrated 23 years of aerial and shipboard surveys, linked them to environmental covariates obtained from remote sensing and ocean models, and built habitat-based density models using distance sampling methodology. For bottlenose dolphins, geographic modeling strata from MMPA stock boundaries and seasonal strata were not defined because of the lack of information about seasonality in the Gulf of Mexico, as well as substantial

spatial and seasonal biases in survey efforts (Roberts *et al.,* 2015a). Therefore, bottlenose dolphin numbers were modeled in the Gulf of Mexico using a single year-round model. Similarly for Atlantic spotted dolphins, there is no evidence that this species migrates or exhibits seasonal patterns in the Gulf of Mexico, so a single, year-round model that incorporated all available survey data was used (Roberts *et al.,* 2015b). The model results are available at the OBIS–SEAMAP repository found online (*http://seamap.env.duke.edu/*).

Two marine mammal density estimates were calculated for this LOA. One density estimate is considered a large-scale estimate and is used for missions that could occur anywhere in W–151A, shoreward of the 200-m isobath. The mission sets that utilize the entire W–151A area include AFSOC's Air-to-Surface Gunnery Training Operations and 413 FLTS's AC–130J Precision Strike Package Gunnery Testing (Scenarios D, E, F, G, and H). The other density estimate is considered a fine-scale estimate and is used for missions that are planned specifically around the GRATV target area. The mission sets that utilize the nearshore GRATV target location are 86th FWS Maritime WSEP, 413 FLTS AC–130J and AC–130W Stand-Off Precision Guided Munitions Testing, 780th TS Precision Strike Weapons, 780 TS/OGMT future missions, and 96th OG future missions (Scenarios A, B, C, and I through T). Using two different density estimates based on the mission locations accounts for the differences between inshore and offshore distribution of bottlenose and Atlantic spotted dolphins, and provides more realistic take calculations.

Raster data provided online from the Duke University Marine Geospatial Ecology Lab Report was imported into ArcGIS and overlaid onto the W–151A area. Density values for each species were provided in 10 x 10 km boxes. The large-scale estimates for W–151A were obtained by averaging the density values of these 100 km^2 boxes within the W–151A boundaries and converted to number of animals per km^2. Fine-scale estimates were calculated by selecting nine 100 km^2 boxes centered around the GRATV target location and averaging the density values from those boxes. Large-scale and fine-scale density estimates are provided in Table 17.

TABLE 17—MARINE MAMMAL DENSITY ESTIMATES FOR EGTTR TESTING AND TRAINING ACTIVITIES

Species	Large-scale density estimate [a] (animals per km^2)	Fine-scale density estimate [b] (animals per km^2)
Bottlenose dolphin [c]	0.276	0.433
Atlantic spotted dolphin [d]	0.160	0.148

[a] Large-scale estimates incorporate the entire W–151A area.
[b] Fine-scale estimates incorporate the nine 10 km^2 boxes centered around the GRATV location.
[c] Densities derived from Roberts *et al.* 2015a.
[d] Densities derived from Roberts *et al.* 2015b.

Density estimates usually assume that animals are uniformly distributed within the prescribed area, even though this is likely rarely true. Marine mammals are often clumped in areas of greater importance, for example, in areas of high productivity, lower predation, safe calving, etc. Furthermore, assuming that marine mammals are distributed evenly within the water column does not accurately reflect behavior. Databases of behavioral and physiological parameters obtained through tagging and other technologies have demonstrated that marine animals use the water column in various ways. Some species conduct regular deep dives while others engage in much shallower dives, regardless of bottom depth. Assuming that all species are evenly distributed from surface to bottom can present a distorted view of marine mammal distribution in any region. Density is assumed to be two-dimensional, and exposure estimates are, therefore, simply calculated as the product of affected area, animal density, and number of events. The resulting exposure estimates are considered conservative, because all animals are presumed to be located at the same depth, where the maximum sound and pressure ranges would extend from detonations, and would, therefore, be exposed to the maximum amount of energy or pressure. In reality, it is highly likely that some portion of marine mammals present near the impact area at the time of detonation would be at various depths in the water column and not necessarily occur at the same depth corresponding to the maximum sound and pressure ranges.

A mission-day based analysis was utilized in order to model accumulated energy over a 24-hour timeframe where each mission-day scenario would be considered a separate event. As described previously, Eglin AFB developed multiple mission-day categories separated by mission groups and estimated the number of days each category would be executed annually. In total, there are 20 different mission-day scenarios included in the acoustic analysis Labeled A–T. Table 18 below summarizes the number of days each mission-day scenario, or event, would be conducted annually in the EGTTR.

TABLE 18—ANNUAL NUMBER OF DAYS PLANNED FOR EACH MISSION CATEGORY DAY

Mission groups	Mission category day	Number of mission days/year
86 FWS Maritime WSEP	A	2
	B	4
	C	2
AFSOC Air-to-Surface Gunnery	D	25
	E	45
413 FLTS PSP Gunnery	F	3
	G	4

TABLE 18—ANNUAL NUMBER OF DAYS PLANNED FOR EACH MISSION CATEGORY DAY—Continued

Mission groups	Mission category day	Number of mission days/year
	H	4
413 FLTS SOPGM	I	2
	J	2
	K	2
	L	2
780 TS Precision Strike Weapon	M	1
	N	1
	O	1
780 TS Other Tests	P	1
	Q	4
96 OG Future Missions	R	1
	S	2
	T	10

Take Calculation and Estimation

Eglin AFB completed acoustic modeling to determine the distances from their explosive ordnance corresponding to NMFS' explosive thresholds. These distances were then used with each species' density to determine exposure estimates. Below is a summary of the methodology for those modeling efforts. Appendix A in the application provides additional details.

The maximum estimated range, or radius, from the detonation point to the point at which the various thresholds extend for all munitions planned to be released in a 24-hour time period was calculated based on explosive acoustic characteristics, sound propagation, and sound transmission loss in the EGTTR. Results are shown in Table 19. These calculations incorporated water depth, sediment type, wind speed, bathymetry, and temperature/salinity profiles. Transmission loss was calculated from the explosive source depth down to an array of water depth bins (0 to 160 m). Impact volumes were computed for each explosive source (based on the total number of munitions released on a representative mission day). The impact volume is a cylinder extending from surface to seafloor, centered at the sound source with a radius set equal to the maximum range, Rmx, across all depths and azimuths at which the particular metric is still above the threshold. The total energy for all weapons released as part of a representative mission day was calculated to assess impacts from the accumulated energy resulting from multiple weapon releases within a 24-hour period. The number of animals impacted is computed by multiplying the area of a circle with radius Rmax, by the original animal density given in animal per km^2.

TABLE 19—THRESHOLD RADII (IN KILOMETERS) FOR EGTTR AIR-TO-SURFACE TESTING AND TRAINING

Mission-day category	Mortality	Level A harassment				Level B harassment		
		Slight lung injury	GI tract injury	PTS		TTS		Behavioral
	Modified Goertner Model 1	Modified Goertner Model 2	237 dB SPL	185 dB SEL	230 dB Peak SPL	170 dB SEL	224 dB Peak SPL	165 dB SEL
Bottlenose Dolphin								
A	0.427	0.768	0.348	1.039	0.705	5.001	1.302	8.155
B	0.107	0.225	0.156	0.43	0.317	2.245	0.585	3.959
C	0.037	0.085	0.083	0.32	0.169	1.128	0.312	1.863
D	0.024	0.055	0.059	0.254	0.12	0.982	0.222	1.413
E	0.01	0.024	0.034	0.232	0.069	0.878	0.126	1.252
F	0.003	0.007	0.019	0.096	0.033	0.218	0.062	0.373
G	0.024	0.055	0.059	0.167	0.12	0.552	0.222	0.809
H	0.006	0.015	0.025	0.097	0.051	0.229	0.093	0.432
I	0.023	0.054	0.059	0.125	0.119	0.328	0.22	0.572
J	0.045	0.101	0.096	0.167	0.195	0.555	0.36	0.812
K	0.057	0.128	0.117	0.164	0.237	0.541	0.438	0.795
L	0.057	0.128	0.117	0.2	0.237	0.654	0.438	0.953
M	0.12	0.249	0.22	0.211	0.447	0.761	0.825	1.123
N	0.076	0.168	0.149	0.202	0.302	0.671	0.557	0.982
O	0.047	0.107	0.101	0.136	0.204	0.432	0.376	0.64
P	0.051	0.115	0.107	0.116	0.217	0.271	0.4	0.527
Q	0.007	0.016	0.026	0.073	0.053	0.149	0.098	0.207
R	0.427	0.768	0.348	0.811	0.705	4.316	1.302	6.883
S	0.142	0.286	0.156	0.692	0.317	3.941	0.585	5.132
T	0.024	0.055	0.059	0.224	0.12	0.837	0.222	1.209
Atlantic Spotted Dolphin								
A	0.504	0.886	0.348	1.039	0.705	5.001	1.302	8.155
B	0.133	0.266	0.156	0.43	0.317	2.245	0.585	3.959
C	0.047	0.104	0.083	0.32	0.169	1.128	0.312	1.863
D	0.03	0.067	0.059	0.254	0.12	0.982	0.222	1.413
E	0.013	0.03	0.034	0.232	0.069	0.878	0.126	1.252

TABLE 19—THRESHOLD RADII (IN KILOMETERS) FOR EGTTR AIR-TO-SURFACE TESTING AND TRAINING—Continued

Mission-day category	Mortality	Level A harassment				Level B harassment		
		Slight lung injury	GI tract injury	PTS		TTS		Behavioral
	Modified Goertner Model 1	Modified Goertner Model 2	237 dB SPL	185 dB SEL	230 dB Peak SPL	170 dB SEL	224 dB Peak SPL	165 dB SEL
F	0.004	0.009	0.019	0.096	0.033	0.218	0.062	0.373
G	0.03	0.067	0.059	0.167	0.12	0.552	0.222	0.809
H	0.008	0.018	0.025	0.097	0.051	0.229	0.093	0.432
I	0.03	0.067	0.059	0.125	0.119	0.328	0.22	0.572
J	0.057	0.124	0.096	0.167	0.195	0.555	0.36	0.812
K	0.072	0.157	0.117	0.164	0.237	0.541	0.428	0.795
L	0.072	0.157	0.117	0.2	0.237	0.654	0.438	0.953
M	0.15	0.29	0.22	0.211	0.447	0.761	0.825	1.123
N	0.096	0.201	0.149	0.202	0.302	0.671	0.557	0.982
O	0.06	0.131	0.101	0.136	0.204	0.432	0.376	0.64
P	0.065	0.141	0.107	0.116	0.217	0.271	0.4	0.527
Q	0.009	0.02	0.026	0.073	0.053	0.149	0.098	0.207
R	0.504	0.886	0.348	0.811	0.705	4.316	1.302	6.883
S	0.172	0.336	0.156	0.692	0.317	3.941	0.585	5.132
T	0.03	0.067	0.059	0.224	0.12	0.837	0.222	1.209

The ranges presented above were used to calculate the total area (circle) of the zones of influence for each criterion/threshold. To eliminate ''double-counting'' of animals, impact areas from higher impact categories (*e.g.,* mortality) were subtracted from areas associated with lower impact categories (*e.g.,* Level A harassment). The estimated number of marine mammals potentially exposed to the various impact thresholds was calculated with a two-dimensional approach, as the product of the adjusted impact area, animal density, and annual number of events for each mission-day category. The calculations generally resulted in decimal values, suggesting that, in most cases, a fraction of an animal was exposed. The results were therefore rounded at the annual mission-day level and then summed for each criterion to obtain total annual take estimates from all EGTTR mission activities. A ''take'' is considered to occur for SEL metrics if the received level is equal to or above the associated threshold within the appropriate frequency band of the sound received, adjusted for the appropriate weighting function value of that frequency band. Similarly, a ''take'' would occur for impulse and peak SPL metrics if the received level is equal to or above the associated threshold. For impact categories with multiple criteria (*e.g.,* slight lung injury, GI tract injury, and PTS for Level A harassment) and criteria with two thresholds (*e.g.,* 187 dB SEL and 230 peak SPL for PTS), the criterion and/or threshold that yielded the highest exposure estimate was utilized for analysis of detonation impacts and shows the total numbers of marine mammals potentially affected by all EGTTR testing and training mission activities annually (See Table 20). These exposure estimates do not take into account the mitigation and monitoring measures that are expected to decrease the potential for impacts.

Acoustic analysis results indicate the potential for injury and non-injurious harassment (including behavioral harassment) to marine mammals in the absence of mitigation measures. Mortality was calculated as one (1) for bottlenose dolphins and zero (0) for Atlantic spotted dolphin. However, the modeling is conservative and it did not include implementation of the mitigation and monitoring measures, and therefore we believe that mortality is unlikely. Further, the potential for Level A harassment takes would be significantly reduced. As such, NMFS is not authorizing any take due to mortality.

Animals from the Northern Gulf of Mexico stock of spotted dolphins and the Northern Gulf of Mexico Continental shelf stock of bottlenose dolphins are likely to be affected. There is also a chance that a limited number of bottlenose dolphins from the Gulf of Mexico Northern Coastal stock could be affected. Animals from this stock are known to occur in waters greater than 20 m in depth. Even though the 20 m isopleth delineates the stock's range, it is an artificial boundary used for management purposes and is not ecologically based. However, most of the bottlenose dolphins potentially affected would be part of the Northern Gulf of Mexico Continental shelf stock.

TABLE 20—TOTAL NUMBER OF MARINE MAMMALS AUTHORIZED TO BE TAKEN ANNUALLY BY AIR-TO-SURFACE TESTING AND TRAINING MISSIONS IN THE EGTTR

Species	Level A harassment		Level B harassment	
	Slight lung injury	PTS (SEL)	TTS (SEL)	Behavioral
Bottlenose dolphin	2	7	220	315
Atlantic spotted dolphin	0	2	85	120
Total	2	9	305	435

Mitigation

In order to issue an LOA under Section 101(a)(5)(A) of the MMPA, NMFS must 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 (latter not applicable for this action).

The NDAA of 2004 amended the MMPA as it relates to military-readiness activities and the incidental take authorization process such that ''least practicable adverse impact'' shall include consideration of personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

In evaluating how mitigation may or may not be appropriate to ensure the least practicable adverse impact on species or stocks and their habitat, as well as subsistence uses where applicable, we carefully consider two primary factors:

(1) The manner in which, and the degree to which, the successful implementation of the measure(s) is expected to reduce impacts to marine mammals, marine mammal species or stocks, and their habitat. This considers the nature of the potential adverse impact being mitigated (likelihood, scope, range). It further considers the likelihood that the measure will be effective if implemented (probability of accomplishing the mitigating result if implemented as planned) and the likelihood of effective implementation (probability of being implemented as planned); and

(2) the practicability of the measures for applicant implementation, which may consider such things as cost, impact on operations, and, in the case of a military readiness activity, personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

Mitigation for Marine Mammals and Their Habitat

Eglin AFB will employ practicable and effective mitigation measures, which include a careful balancing of the likely benefit of any particular measure to the marine mammals with the likely effect of that measure on personnel safety, practicality of implementation, and impact on the military-readiness activity. Required mitigation measures include the following:

Timing Restrictions—With the exception of gunnery operations, missions will take place no earlier than two hours after sunrise. This measure provides observers with adequate visibility necessary for two hour pre-mission monitoring. Missions must also be completed at least 30 minutes before sunset which will allow adequate visibility for post-mission monitoring.

Trained Observers—All monitoring will be conducted by personnel who have completed Eglin's Marine Species Observer Training Course, which was developed in cooperation with NMFS. This training includes a summary of environmental laws, consequences of non-compliance, description of an observer's role, pictures and descriptions of protected species and protected species indicators, survey methods, monitoring requirements, and reporting procedures. The training will be provided to user groups either electronically or in person by an Eglin AFB representative. Any person acting as an observer for a particular mission must have completed the training within the year prior to the mission. Names of personnel who have completed the training will be submitted to Eglin AFB along with the date of completion. In cases where multiple survey platforms are required to cover large survey areas, a Lead Biologist will be designated to lead all monitoring efforts and coordinate sighting information with the Test Director or Safety Officer.

Pre- and Post-Mission Monitoring—For each live mission, at a minimum, pre- and post-mission monitoring will be required. Missions will occur no earlier than two hours after sunrise and no later than two hours prior to sunset to ensure adequate daylight for pre- and post-mission monitoring, with the exception of AFSOC and the 413 FLTS gunnery missions. In those cases, aircrews will utilize aircraft instrumentation and sensors to monitor the area.

Monitoring will be conducted from a given platform depending on the specific mission. The purposes of pre-mission monitoring are to (1) evaluate the mission site for environmental suitability and (2) verify that the ZOI is free of visually detectable marine mammals and potential marine mammal indicators. USAF range clearing vessels and protected species survey vessels will be on-site at least two hours prior to the mission. Vessel-based surveys will begin approximately one and one-half hours prior to live weapon deployment. Surveys will continue for approximately one hour or until the entire ZOI has been adequately surveyed, whichever comes first. At approximately 30 minutes prior to live weapon deployment, marine species observers will be instructed to leave the mission site and remain outside the safety zone, which on average will be 15 miles from the detonation point.

The duration of pre-mission surveys will depend on the area required to be surveyed and survey platforms (vessels versus aircraft). All marine mammal sightings including the species (if possible), number, location, and behavior of the animals will be documented on report forms that will be submitted to Eglin AFB after each mission. Missions will be postponed, relocated, or cancelled based on the presence of protected species within the survey areas.

Post-mission monitoring is designed to determine the effectiveness of pre-mission mitigation by reporting sightings of any dead or injured marine mammals. Post-detonation monitoring surveys will commence once the mission has ended or, if required, as soon as the mission area is declared safe. Vessels will move into the survey area from outside the safety zone and monitor for at least 30 minutes. The duration of post-mission surveys will vary based on survey platform. Similar to pre-mission surveys, all sightings would be properly documented on report forms and submitted to Eglin AFB. Any marine mammals that are detected in the ZOI during post-mission surveys and for which takes are authorized will be counted as Level B takes. Furthermore, any marine mammal observed in the ZOI for which take is not authorized will be reported immediately to the Office of Protected Resources, NMFS.

If any marine mammals are killed or injured as a result of the mission, Eglin AFB would be contacted immediately. Observers would document the species or description of the animal, location, and behavior and, if practicable, take pictures and maintain visual contact with the animal. Eglin AFB must notify the Director, Office of Protected Resources, NMFS, or designee, by telephone (301–427–8401), and the Southeast Regional Office immediately and await further instructions or the arrival of a response team on-site, if feasible. Activities shall cease and not resume until NMFS is able to review the circumstances of the prohibited take.

Mission Delay under Poor Sea State Conditions—Weather conducive to marine mammal monitoring is required to effectively conduct the pre- and post-mission surveys. Wind speed and the resulting surface conditions are critical factors affecting observation

effectiveness. Higher winds typically increase wave height and create ''whitecap'' conditions, both of which limit an observer's ability to locate marine species at or near the surface. Air-to-surface missions will be delayed or rescheduled if the sea state is greater than number 4 as listed in Table 21 at the time of the mission. Protected species observers or the Lead Biologist will make the final determination of whether or not conditions are conducive to sighting protected species.

TABLE 21—SEA STATE SCALE FOR EGTTR PRE-MISSION SURVEYS

Sea state No.	Sea conditions
0	Flat, calm, no waves or ripples.
1	Light air, winds 1–2 knots; wave height to 1 foot; ripples without crests.
2	Light breeze, winds 3–6 knots; wave height 1–2 feet; small wavelets, crests not breaking.
3	Gentle breeze, winds 7–10 knots; wave height 2–3.5 feet; large wavelets, scattered whitecaps.
4	Moderate breeze, winds 11–16 knots; wave height 3.5–6 feet; breaking crests, numerous whitecaps.

Visibility is also a critical factor for flight safety issues when aerial surveys are being conducted. Therefore, a minimum ceiling of 305 m (1,000 ft) and visibility of 5.6 km (3 nmi) is required to support monitoring efforts and flight safety concerns.

Determination of ZOI Survey Areas—The ZOI is defined as the area or volume of ocean in which marine mammals could be exposed to various pressure or acoustic energy levels caused by exploding ordnance. Each threshold range listed in Table 19 represents a radius of impact for a given threshold of each munition/detonation scenario. These ranges are used for determining the size of the area required to be monitored during pre-mission surveys for each activity. For any mission involving live munitions (other than gunnery rounds) an area extending out to the PTS harassment range for the corresponding mission-day scenario will be completely cleared of marine mammals prior to release of the first live ordnance. Depending on the mission-day scenario, the corresponding radius could be between 73 m for a live fuse surface detonation associated with mission-day scenario Q, and 1,039 m associated with mission-day scenario A. This would help ensure that no marine mammals will be within any of the Level A harassment or mortality zones during a live detonation event, significantly reducing the potential for these types of impacts to occur.

Some missions will be delayed to allow survey platforms to evacuate the human safety zone after pre-missions surveys are completed. For these delayed missions, Eglin proposes to include a buffer around the survey area that would extend to the TTS harassment zone for the corresponding mission-day scenario. This would double, and in some cases triple, the size of the survey area for the PTS zone. This buffer will mitigate for the potential that an animal outside the area during pre-mission surveys would enter the Level A harassment or mortality zones during a mission. However, missions that consist solely of gunnery testing and training operations will actually survey larger areas based on previously established safety profiles and the ability to conduct aerial surveys of large areas from mission aircraft. These ranges are shown in Table 22. Comparing the monitoring area below with behavioral harassment threshold radii for Atlantic spotted dolphins for mission-day categories D through H (between 0.4 km and 1.4 km (0.2 and 0.8 nmi)) shows that a much larger area will be covered by this monitoring procedure.

Mission Delay Associated with Animals in Zone of Influence—A mission delay of live ordnance mission activities will occur if a protected species, large schools of fish, or large flocks of birds feeding at the surface are observed within the Level B harassment ZOI. Mission activities cannot resume until one of the following conditions is met: (1) Marine mammal is confirmed to be outside of the ZOI on a heading away from the target area; (2) marine mammal is not seen again for 30 minutes and presumed to be outside the Level A ZOI; or (3) large groupings of fish or birds leading to required delay are confirmed outside the ZOI.

Mission Abort if Sperm or Baleen Whales Observed During Pre-mission Monitoring —Marine mammal species found in the Gulf of Mexico, including the Federally listed sperm whale and the Bryde's whale, which is proposed for ESA listing, occur with greater regularity in waters over and beyond the continental shelf break. To avoid impacts to the sperm whale, AFSOC has agreed to conduct all gunnery missions within (shoreward of) the 200-m isobath, which is considered to be the shelf break for purposes of this document. Furthermore, mission activities will be aborted/suspended for the remainder of the day if one or more sperm or baleen whales are detected during pre-mission monitoring activities as no takes of these species have been authorized. This measure will incidentally provide greater protection to several other species as well. Trained observers will also be instructed to be vigilant in ensuring Bryde's whales are not in the ZOI.

TABLE 22—MONITORING AREA RADII FOR GUNNERY MISSIONS

Aircraft	Gunnery round	Monitoring area	Monitoring altitude	Operational altitude
AC–130 gunship	25 mm, 30 mm, 40 mm, 105 mm (FU and TR).	5 nmi (9,260 m)	6,000 ft	15,000–20,000 ft.
CV–22 Osprey	.50 cal, 7.62 mm	3 nmi (5,556 m)	1,000 ft	1,000 ft.

cal = caliber; ft = feet; FU = full up; m = meters; mm = millimeter; nmi = nautical miles; TR = Training Round.

Mitigation Measures for Gunnery Actions—Eglin AFB has identified and required implementation of operational mitigation measures for gunnery missions, including development of the 105-mm TR, use of ramp-up procedures (explained below), re-initiation of species surveys if live fire activities are interrupted for more than 10 minutes, and eliminating missions conducted over waters beyond the continental shelf.

The largest type of ammunition used during gunnery missions is a 105-mm round, which contains 4.7 pounds of high explosive (HE). This is several times more HE than that found in the next largest round (40 mm). As a mitigation technique, the USAF developed a 105-mm TR that contains only 0.35 pounds of HE. The TR was developed to substantially reduce the risk of harassment during nighttime operations, when visual surveying for

marine mammals is of limited effectiveness (however, monitoring by use of the AC–130's instrumentation is effective at night).

Ramp-up procedures refer to the process of beginning with the least impactive action and proceeding to more impactive actions. In the case of gunnery activities, ramp-up procedures entail beginning a mission with the lowest caliber munition and proceeding to the highest, which means the munitions would be fired in the order of 25 mm, 40 mm, and 105 mm. The rationale for the procedure is that this process may allow marine species to perceive steadily increasing noise levels and to react, if necessary, before the noise reaches a threshold of significance.

If use of gunship weapons is interrupted for more than 10 minutes, Eglin AFB would be required to reinitiate applicable protected species surveys in the ZOI to ensure that no marine mammal species entered into the ZOI during that time.

The AC–130 gunship weapons are used in two phases. First, the guns are checked for functionality and calibrated. This step requires an abbreviated period of live fire. After the guns are determined ready for use, the aircraft deploys a flare onto the surface of the water as a target, and 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-mm, 40-mm, and 105-mm rounds).

A ramp-up procedure will be required for the initial calibration phase and, after this phase, the guns may be fired in any order. Eglin AFB believes 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 during the live-fire mission. This protocol provides a more realistic training experience for aircrews. In combat situations, gunship crews would not necessarily fire the complete ammunition load of a given caliber gun before proceeding to another gun. Rather, a combination of guns might be used as required by real-time situations. An additional benefit of this protocol is that mechanical or ammunition problems with an individual gun can be resolved while live fire continues with functioning weapons. This diminishes the possibility of pause in live fire lasting 10 minutes or more, which would necessitate reinitiation of protected species surveys.

Based on our evaluation of Eglin AFB's planned measures, NMFS has determined that the mitigation measures provide the means effecting the least practicable impact on the affected species or stocks and their habitat, while also considering personnel safety, practicality of implementation, and the impact of effectiveness of the military readiness activity.

Monitoring and Reporting

In order to issue an incidental take authorization for an activity, Section 101(a)(5)(A) of the MMPA states that NMFS must 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 authorizations 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 action area. Effective reporting is critical to compliance as well as ensuring that the most value is obtained from the required monitoring.

Monitoring and reporting requirements prescribed by NMFS should contribute to improved understanding of one or more of the following:

- Occurrence of marine mammal species or stocks in the area in which take is anticipated (*e.g.,* presence, abundance, distribution, density);
- Nature, scope, or context of likely marine mammal exposure to potential stressors/impacts (individual or cumulative, acute or chronic), through better understanding of: (1) Action or environment (*e.g.,* source characterization, propagation, ambient noise); (2) affected species (*e.g.,* life history, dive patterns); (3) co-occurrence of marine mammal species with the action; or (4) biological or behavioral context of exposure (*e.g.,* age, calving or feeding areas);
- Individual marine mammal responses (behavioral or physiological) to acoustic stressors (acute, chronic, or cumulative), other stressors, or cumulative impacts from multiple stressors;
- How anticipated responses to stressors impact either: (1) Long-term fitness and survival of individual marine mammals; or (2) populations, species, or stocks;
- Effects on marine mammal habitat (*e.g.,* marine mammal prey species, acoustic habitat, or other important physical components of marine mammal habitat); and
- Mitigation and monitoring effectiveness.

The following monitoring options have been developed to support various types of air-to-surface mission activities that may be conducted in the EGTTR. Eglin AFB users covered by this LOA must meet specific test or training objectives and safety requirements and have different assets available to execute the pre- and post-mission surveys. The monitoring options and mitigation measures described in the subsections below balance all mission-essential parameters with measures that will support adequate protection to marine mammals. Monitors will search for any marine mammal, including species for which takes have been and have not been authorized. Monitors will be instructed to be extra vigilant in ensuring that species of concern, including the sperm whale (listed as endangered under the ESA) and Bryde's whale (proposed for listing under the ESA) are clear of the ZOI during testing and training activities.

Vessel-based Monitoring—Pre-mission surveys conducted from surface vessels will typically begin at sunrise. Trained observers will be aboard designated vessels to conduct protected species surveys before and after each mission. These vessels will be dedicated solely to monitoring for protected marine species and species indicators during the pre-mission surveys. For missions that require multiple vessels to conduct surveys based on the size of the survey area, a Lead Biologist will be designated to coordinate all survey efforts, compile sighting information from the other vessels, function as the point of contact between the survey vessels and Tower Control on Santa Rosa Island, and provide final recommendations to the Safety Officer/Test Director on the suitability of the mission site based on environmental conditions and survey results.

Survey vessels will run pre-determined line transects, or survey routes, that will provide sufficient coverage of the survey area. Monitoring activities will be conducted from the highest point feasible on the vessels. There will be at least two dedicated observers on each vessel, and they will utilize optical equipment with sufficient magnification to allow observation of surfaced animals.

All sighting information from pre-mission surveys will be communicated to the Lead Biologist on a pre-determined radio channel to reduce overall radio chatter and potential confusion. After compiling all the sighting information from the other survey vessels, the Lead Biologist will inform Tower Control on Santa Rosa Island on whether the area is clear of

protected species or not. If the range is not clear, the Lead Biologist will provide recommendations on whether the mission should be delayed or cancelled. For example, a mission delay would be recommended if a small number of protected species are in the ZOI but appear to be on a heading away from the mission area. The delay would continue until the Lead Biologist has confirmed that the animals are no longer in the ZOI and traveling away from the mission site. On the other hand, a mission cancellation could be recommended if one or more protected species in the ZOI are found and there is no indication that they would leave the area on their own within a reasonable timeframe. Tower Control on Santa Rosa Island will relay the Lead Biologist's recommendation to the Safety Officer. The Safety Officer and Test Director will collaborate regarding range conditions based on the information provided by the Lead Biologist and the status of range clearing vessels. The Safety Officer will have final authority on decisions regarding delays and cancellations of missions.

USAF Support Vessels—USAF support vessels will consist of a combination of USAF and civil service/civilian personnel responsible for mission site/target setup and range clearing activities. USAF personnel will be within the mission area (on boats and the GRATV) for each mission well in advance of weapon deployment, typically near sunrise. They will perform a variety of tasks including target preparation, equipment checks, etc., and will observe for marine mammals and indicators as feasible throughout test preparation. However, such observations are considered incidental and would only occur as time and schedule permits. Any sightings would be relayed to the Lead Biologist.

The Eglin Safety Officer, in cooperation with the Tower Control on Santa Rosa Island will coordinate and manage all range clearing efforts and be in direct communication with the survey vessel team, typically through the Lead Biologist. All support vessels will be in radio contact with one another and with Tower Control. The Safety Officer will monitor all radio communications, but Tower Control will relay messages between the vessels and the Safety Officer. The Safety Officer and Tower Control will also be in continual contact with the Test Director throughout the mission and will convey information regarding range clearing progress and protected species survey status. Final decisions regarding mission execution, including possible mission delay or cancellation based on protected species sightings or civilian boat traffic interference, will be the responsibility of the Safety Officer, with concurrence from the Test Director.

Aerial-based Monitoring—Aircraft typically provide an excellent viewing platform for detection of marine mammals at or near the surface. Depending on the mission, the aerial survey team will either consist of Eglin AFB personnel or their designees aboard a non-mission aircraft or the mission aircrew who have completed the Marine Species Observer Training. A description of each follows.

For non-mission aircraft, the pilot will be instructed in protected marine species survey techniques and will be familiar with marine species expected to occur in the area. One person in the aircraft will act as data recorder and is responsible for relaying the location, species (if possible), direction of movement, and number of animals sighted to the Lead Biologist. The aerial team will also identify protected species indicators such as large schools of fish and large, active groups of birds. Pilots will fly the aircraft in such a manner that the entire ZOI (and a buffer, if required) is monitored. Marine mammal sightings from the aerial survey team will be compiled by the Lead Biologist and communicated to the Test Director or Safety Officer. Similar to survey vessel requirements, all non-mission personnel will be required to exit the human safety zone before the mission can commence. As a result, the ZOI may not be monitored up to immediate deployment of live weapons. Due to this fact, the aerial team may be required to survey an additional buffer zone unless other monitoring assets, such as live video monitoring, can be employed.

Some mission aircraft have the capability to conduct aerial surveys immediately prior to releasing munitions. In those instances, aircrews that have completed the marine species observer training will make several passes over the target area to ensure the area is clear of all protected species. For mission aircraft in this category, aircrews will operate at reasonable and safe altitudes (dependent on the aircraft) appropriate to either visually scan the sea surface or utilize available instrumentation and sensors to detect protected species. Typical missions in this category are air-to-surface gunnery operations from AC–130 and CV–22 gunships. In some cases, other aerial platforms may be available to supplement monitoring activities for pre-mission surveys and during the missions.

Video-based Monitoring—Video-based monitoring may be accomplished via live high-definition video feed transmitted to CCF. Video monitoring typically facilitates data collection for the mission but can also allow remote viewing of the area for determination of environmental conditions and the presence of marine species up to the release time of live munitions. There are multiple sources of video that can be streamed to multiple monitors within CCF. When authorized for specific missions (*e.g.,* Maritime WSEP), a trained marine species observer from Eglin AFB will monitor all live video feed transmitted to CFF and will report any marine mammal sightings to the Safety Officer, who will also be at CCF. Employing this measure typically resolves any lapse between the time survey vessels or aircraft leave the safety zone after completing pre-mission surveys but before the mission actually begins.

The primary platform for video monitoring would be through the GRATV. Four video cameras are typically positioned on the GRATV (anchored on-site) to allow for real-time monitoring and data collection during the mission. The cameras will also be used to monitor for the presence of protected species. All cameras have a zoom capability of up to at least a 300-mm equivalent. At this setting, when targets are at a distance of 2 nmi from the GRATV, the field of view would be 195 ft by 146 ft. Video observers can detect an item with a minimum size of 1 square foot up to 4,000 m away. The GRATV will typically be located about 183 m (600 ft) from the target area; this range is well within the zooming capability of the video cameras.

Supplemental video monitoring can also be accomplished through the employment of additional aerial assets, when available. Eglin's aerostat balloon provides aerial imagery of weapon impacts and instrumentation relay. When utilized, it is tethered to a boat anchored near the GRATV but outside weapon impact areas. The balloon can be deployed to an altitude up to 2,000 ft above sea level. It is equipped with a high-definition camera system that is remotely controlled to pivot and focus on a specific target or location within the mission site. The video feed from the camera system is transmitted to CCF. Eglin may also employ other assets such as intelligence, surveillance, and reconnaissance aircraft to provide real-time imagery or relay targeting pod videos from mission aircraft. Unmanned aerial vehicles may also be employed to provide aerial video surveillance. While each of these platforms may not be available for all missions, they typically can be used in combination with each

other and with the GRATV cameras to supplement marine mammal monitoring efforts.

Even with a variety of platforms potentially available to supply video feeds to CCF, the entire ZOI may not be visible for the entire duration of the mission. However, the targets and immediately surrounding areas will typically be in the field of view of the GRATV cameras and the observer will be able to identify any protected species that may enter the target area before weapon releases. In addition, the observer will be able to determine if any animals were injured immediately following the detonations. Should a protected marine species be detected on the live video, the weapon release can be stopped almost immediately because the video camera observer is in direct contact with Test Director and Safety Officer at CCF.

Acoustic Monitoring—Eglin will conduct a NMFS-approved PAM study as an initial step towards understanding acoustic impacts from underwater detonations. During a live mission event, the Eglin AFB proposes to collect data that measures energy and pressure levels from varying distances away from weapon impact points. The data would likely be recorded by hydrophones attached to buoys that are deployed just before the mission. After mission activities, the buoys would be collected, then the data would be downloaded and analyzed. The results would be compared to the various ranges to effects for Level A and Level B Harassment that were calculated with the acoustic model. Eglin will also conduct PAM for marine mammal vocalizations before, during, and after live missions in the EGTTR. Once funding for these efforts is secured, Eglin AFB will work closely with NMFS to develop a research plan that will meet mutually agreeable objectives.

As previously described in the response to Comment #2, Eglin AFB and NMFS have discussed the possibility of employing PAM as a required mitigation measure during EGTTR activities. However, human safety concerns and the inability to make mission go/no-go decisions in a timely manner are the most immediate obstacles for Eglin AFB implementing real-time PAM during live weapon missions in the EGTTR.

As noted previously, Eglin's current boat and aerial pre- and post-mission visual surveys have been successful in preventing impacts to marine mammals because no unauthorized takes have occurred as a result of these procedures under previous incidental take authorizations. Until Eglin AFB is confident that this first step toward a rudimentary PAM study is successfully implemented, the USAF cannot commit to PAM as a mitigation measure, which would add multiple layers of complexities required to detect and localize marine mammals during a live mission event. Furthermore, Eglin would need to gain better understanding of PAM capabilities so mission-appropriate procedures could be developed for making go/no-go decisions in a timely manner. Given the level of success with current mitigation procedures and the high level of unknowns associated with implementing PAM as part of mitigation procedures for USAF activities, Eglin AFB and NMFS agreed that using PAM as a real-time mitigation measure is not practicable at this time.

AC–130 and CV–22 Gunship Procedures—After arriving at the mission site and prior to initiating firing events, gunships will conduct at least two complete orbits around the survey area at a minimum safe airspeed around the mission site at the appropriate monitoring altitude. Provided that marine mammals (and other protected species or indicators) are not detected, the aircraft will then begin the ascent to operational altitude, continuing to orbit the target area as it climbs. The initial orbits occur over a timeframe of approximately 10 to 15 minutes. Monitoring for marine mammals, vessels, and other objects will continue throughout the mission. If a towed target is used, mission personnel will ensure that the target remains in the center portion of the survey area to ensure gunnery impacts do not extend past the ZOI.

During the low-altitude orbits and climb, the aircrew will visually scan the sea surface within the aircraft's orbit circle for the presence of marine mammals. The surface scan will primarily be conducted by the flight crew in the cockpit and personnel stationed in the tail observer bubble and starboard viewing window. During nighttime missions, crews will use night vision goggles during observation. In addition to visual surveys, aircraft optical and electronic sensors will also be used for site clearance. AC–130 gunships are equipped with low-light TV cameras and infrared detection sets (IDSs). The TV cameras operate in a range of visible and near-visible light. Infrared systems are capable of detecting differences in temperature from thermal energy (heat) radiated from living bodies or from reflected and scattered thermal energy. In contrast to typical night-vision devices, visible light is not necessary for object detection. Infrared systems are equally effective during day or night use. The IDS is capable of detecting very small thermal differences. CV–22 aircraft have similar visual scanners and operable sensors; however, they operate at much lower altitudes than the AC–130 gunships, and no HE rounds will be fired from these aircraft.

If any marine mammals are detected during pre-mission surveys or during the mission, activities will be immediately halted until the ZOI area is clear of all marine mammals, or the mission will be relocated to another target area. If the mission is relocated, the pre-mission survey procedures will be repeated. In addition, if multiple firing missions are conducted within the same flight, clearance procedures will precede each mission.

Gunship crews will conduct a post-mission survey beginning at the operational altitude and proceeding through a spiraling descent to the designated monitoring altitude. It is anticipated that the descent will occur over a three- to five-minute time period. During this time, aircrews will use similar equipment and instrumentation to scan the water surface for animals that may have been impacted during the gunnery mission. During daytime missions, visual scans will be used as well.

Coordination with Eglin Natural Resources Office—Prior to conducting live missions, proponents will coordinate with Eglin Natural Resources to be briefed on their mitigation and monitoring requirements. Throughout coordination efforts, mission assets available for monitoring will be identified and an implementation plan will be developed. Based on the assets, survey routes will be designed to incorporate the size of the monitoring area and determine whether a buffer will be required. Training and reporting requirements will also be communicated to the proponents

The following table lists known proponents and the monitoring platforms that may be employed for marine mammal monitoring before, during, and after live air-to-surface missions. As stated above, coordination with proponents before live missions will ensure these options are still available, as well as any changes to assets or mission capabilities for new proponents that would fall under this authorization. Eglin Natural Resources will ensure all practical measures will be implemented to the maximum extent possible to comply with the mitigation and monitoring requirements while meeting mission objectives.

TABLE 23—MONITORING OPTIONS AVAILABLE FOR LIVE AIR-TO-SURFACE MISSION PROPONENTS OPERATING IN THE EGTTR

Mission	Monitoring platform		
	Vessel	Aerial	Video
86 FWS Maritime Weapons System Evaluation Program (WSEP)	•		•
USAF Special Operations Command (AFSOC) Training			
Air-to-Surface Gunnery		•	
Small Diameter Bomb/Griffin Missile Training		•	
CV–22 Training		•	
413th Flight Test Squadron (FLTS)			
AC–130J Precision Strike Package Testing		•	•
AC–130J Stand-Off Precision Guided Munitions Testing		•	•
780th Test Squadron			
Precision Strike Weapon	•	•	•
Longbow Littoral Testing	•		•

Monitoring and Reporting Measures

In addition to monitoring for marine species before and after missions, the following monitoring and reporting measures will be required.

- Within a year before the planned missions, all protected species observers will receive the Marine Species Observer Training Course developed by Eglin in cooperation with NMFS.
- Eglin AFB will track use of the EGTTR and protected species observation results through the use of protected species observer report forms.
- A summary annual report of marine mammal observations and mission activities will be submitted to the NMFS Southeast Regional Office and the NMFS Office of Protected Resources 90 days after completion of mission activities each year or 60 days prior to the issuance of any subsequent LOA for projects at the EGTTR, whichever comes first. A final report shall be prepared and submitted within 30 days following resolution of comments on the draft annual reports from NMFS. This annual report must include the following information:
  - Date and time of each mission.
  - A complete description of the pre-mission and post-mission activities related to mitigating and monitoring the effects of mission activities on marine mammal populations.
  - Results of the visual monitoring, including numbers by species/stock of any marine mammals noted injured or killed as a result of the missions, and number of marine mammals (by species if possible) that may have been harassed due to presence within the activity zone.
  - If any dead or injured marine mammals are observed or detected prior to mission activities, or injured or killed during mission activities, a report must be made to the NMFS Southeast Region Marine Mammal Stranding Network at 877–433–8299, the Chief of the Permits and Conservation Division, Office of Protected Resources, at 301–427–8401 and the Florida Marine Mammal Stranding Hotline at 888–404–3922 immediately.
  - Any unauthorized impacts on marine mammals must be immediately reported to the National Marine Fisheries Service's Southeast Regional Administrator, at 727–842–5312, and the Chief of the Permits and Conservation Division, Office of Protected Resources, at 301–427–8401.

Adaptive Management

NMFS may modify (including augment) the existing mitigation, monitoring, or reporting measures (after consulting with Eglin AFB regarding the practicability of the modifications) if doing so creates a reasonable likelihood of more effectively accomplishing the goals of the mitigation and monitoring measures for these regulations.

Possible sources of data that could contribute to the decision to modify the mitigation, monitoring, or reporting measures in an LOA include: (1) Results from Eglin AFB's acoustic monitoring study; (2) results from monitoring during previous year(s); (3) results from other marine mammal and/or sound research or studies; and (4) any information that reveals marine mammals may have been taken in a manner, extent or number not authorized by these regulations or subsequent LOAs.

If, through adaptive management, the modifications to the mitigation, monitoring, or reporting measures are substantial, NMFS will publish a notice of proposed LOA in the **Federal Register** and solicit public comment. If, however, NMFS determines that an emergency exists that poses a significant risk to the well-being of the species or stocks of marine mammals in the Gulf of Mexico, an LOA may be modified without prior notice or opportunity for public comment. Notice would be published in the **Federal Register** within 30 days of the action.

Negligible Impact Analysis and Determination

NMFS has defined negligible impact 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 (50 CFR 216.103). A negligible impact finding is based on the lack of likely adverse effects on annual rates of recruitment or survival (*i.e.,* population-level effects). An estimate of the number of takes alone is not enough information on which to base an impact determination. In addition to considering estimates of the number of marine mammals that might be ''taken'' through harassment, NMFS considers other factors, such as the likely nature of any responses (*e.g.,* intensity, duration), the context of any responses (*e.g.,* critical reproductive time or location, migration), as well as effects on habitat, and the likely effectiveness of the mitigation. We also assess the number, intensity, and context of estimated takes by evaluating this information relative to population status. Consistent with the 1989

preamble for NMFS's implementing regulations (54 FR 40338; September 29, 1989), the impacts from other past and ongoing anthropogenic activities are incorporated into this analysis via their impacts on the environmental baseline (*e.g.,* as reflected in the regulatory status of the species, population size and growth rate where known, ongoing sources of human-caused mortality, or ambient noise levels).

To avoid repetition, the discussion of our analyses applies to bottlenose dolphins and Atlantic spotted dolphins, given that the anticipated effects of this activity on these different marine mammal stocks are expected to be similar. There is little information about the nature or severity of the impacts, or the size, status, or structure of these two species or stocks that would lead to a different analysis for this activity.

For reasons stated previously in this document and based on the following factors, Eglin AFB's specified activities are not likely to cause long-term behavioral disturbance, serious injury, or death. Because the exposure model was conservative and calculated a single bottlenose dolphin death, along with the fact that the required mitigation and monitoring measures were not incorporated into the model, NMFS does not anticipate or propose to authorize any take by mortality. The takes from Level B harassment would be due to disturbance of normal behavioral patterns and TTS, as duration of exposure is relatively short. The potential takes from Level A harassment would be due to PTS and slight lung injury (not gastrointestinal tract injury).

NMFS has determined that direct strike by ordnance is highly unlikely. Although strike from a munition at the surface of the water while the animals are at the surface is possible, the potential risk of a direct hit to an animal within the target area would be low. The USAF (2002 PEA) estimated that in the absence of mitigation a maximum of 0.2 marine mammals could potentially be struck by projectiles, falling debris, and inert munitions each year.

Disruption of normal behavioral patterns constituting Level B harassment would be limited to reactions such as startle responses, movements away from the area, and short-term changes to behavioral state. These impacts are expected to be temporary and of limited duration due to the likely avoidance of the action area by marine mammals, short period of individual explosions themselves (versus continual sound source operation), and relatively short duration of the EGTTR operations (*i.e.* ranging from a few minutes to no more than four hours per day depending on the mission category).

Level B harassment in the form of TTS was modeled to occur in both species for which take is authorized. If TTS occurs, it is expected to be at low levels and of short duration. As explained previously, TTS is temporary with no long-term effects to species. The modeled take numbers are expected to be overestimates because NMFS expects that successful implementation of the required aerial-based, vessel-based and video-based mitigation measures could avoid TTS. Furthermore, monitoring results from previous incidental take authorizations have demonstrated that it is uncommon to sight marine mammals within the ZOI, especially for prolonged durations. Results from monitoring programs associated with Eglin AFB's 2015 and 2016 Maritime WSEP activities have shown the absence of marine mammals within the ZOI during operations.

NMFS expects that successful implementation of the required aerial-based, vessel-based and video-based mitigation measures would avoid or reduce take by Level A harassment in some instances. Marine mammals would likely begin to move away from the immediate target area once bombing begins, decreasing exposure to the full amount of acoustic energy. There have also been no marine mammal observations in the ZOI according to monitoring reports from previous years. Therefore, we anticipate that, because of the mitigation measures, low observation rate of marine mammals in the target area, and the likely limited duration of exposures, any PTS incurred would be in the form of only a small degree of PTS, rather than total deafness.

Other than for mortality, the take numbers authorized by NMFS do not consider mitigation or avoidance. Therefore, NMFS expects that Level A harassment is unlikely to occur at the authorized numbers. However, since it is difficult to quantify the degree to which the mitigation and avoidance will reduce the number of animals that might incur Level A harassment (*i.e.* PTS, slight lung injury), NMFS proposes to authorize take by Level A harassment at the numbers derived from the exposure model and has included that potential amount of take in our analysis. Moreover, the mitigation and monitoring measures required under the Authorization (described earlier in this document) are expected to further minimize the potential for both Level A and Level B harassment.

Impacts to habitat are not anticipated. Noise and pressure waves resulting from live weapon detonations are not likely to result in long-term physical alterations of the water column or ocean floor. These effects are not expected to substantially affect prey availability, are of limited duration, and are intermittent. Impacts to marine fish were analyzed in the *Eglin Gulf Test and Training Range Environmental Assessment* (Department of the Air Force, 2015). In the EA, it was determined that fish populations were unlikely to be affected and prey availability for marine mammals would not be impaired. Other factors related to EGTTR activities that could potentially affect marine mammal habitat include the introduction of metals, explosives and explosion by-products, other chemical materials, and debris into the water column and substrate due to the use of munitions and target vessels. However, the effects of each were analyzed in the EA and were determined to not be significant.

While animals may be impacted in the immediate vicinity of the target area, because of the short duration of the actual individual explosions themselves (versus continual sound source operation) combined with the relatively short duration of daily operations (*i.e.* ranging from a few minutes to no more than four hours per day depending on the mission category), NMFS has determined that there will not be a substantial impact on marine mammals or their habitat in Gulf of Mexico ecosystems in the EGTTR. We do not expect that the planned activity would impact rates of recruitment or survival of marine mammals since we do not expect mortality (which would remove individuals from the population) or serious injury to occur. In addition, the activity will not occur in areas (and/or times) of significance for the marine mammal populations potentially affected by the exercises (*e.g.,* feeding, resting, or reproductive areas), and the activities will only occur in a small part of their overall range, so the impact of any potential temporary displacement would be negligible and animals would be expected to return to the area after the cessations of activities. Although the planned activity could result in Level A (PTS and slight lung injury) and Level B (behavioral disturbance and TTS of lesser degree and shorter duration) harassment of marine mammals, the level of harassment is not anticipated to impact rates of recruitment or survival of marine mammals because the number of exposed animals is expected to be low due to the relatively short-term and site-specific nature of the activity. Furthermore, we do not anticipate that

the effects would be detrimental to rates of recruitment and survival because we do not expect serious extended behavioral responses that would result in energetic effects at the level to impact fitness or physiological impacts of a nature that would impede reproduction or survival.

In summary and as described above, the following factors primarily support our determination that the impacts resulting from this activity are not expected to adversely affect the species or stock through effects on annual rates of recruitment or survival:

- No mortality is anticipated or authorized and only 11 instances of Level A harassment are authorized. Remaining impacts would be within the non-injurious TTS or behavioral effects zones (Level B harassment consisting of generally temporary modifications in behavior);
- Effectiveness of mitigation and monitoring requirements which are designed and expected to avoid exposures that may cause serious injury and minimize the likelihood of PTS, TTS, or more severe behavioral responses;
- Adverse impacts to habitat are not expected; and
- Results from previous monitoring reports did not record any marine mammal takes associated with military readiness activities occurring in the EGTTR.

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 monitoring and mitigation measures, NMFS finds that the total marine mammal take from the planned activity will have a negligible impact on all affected marine mammal species or stocks.

Unmitigable Adverse Impact Analysis and Determination

There are no relevant subsistence uses of the affected marine mammal stocks or species implicated by this action. Therefore, NMFS has determined that the total taking of affected species or stocks would not have an unmitigable adverse impact on the availability of such species or stocks for taking for subsistence purposes.

Endangered Species Act (ESA)

Section 7(a)(2) of the Endangered Species Act of 1973 (ESA: 16 U.S.C. 1531 *et seq.*) requires that each Federal agency insure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of designated critical habitat. No incidental take of ESA-listed marine mammal species is authorized or expected to result from the proposed activities. Therefore, NMFS has determined that formal consultation under section 7 of the ESA is not required for this action.

Classification

The Office of Management and Budget has determined that this final rule is not significant for purposes of Executive Order 12866. This rule is not an Executive Order 13771 regulatory action because this rule is not significant under Executive Order 12866.

Pursuant to the Regulatory Flexibility Act (RFA), the Chief Counsel for Regulation of the Department of Commerce certified to the Chief Counsel for Advocacy of the Small Business Administration at the proposed rule stage that this rule would not have a significant economic impact on a substantial number of small entities. Eglin AFB is the sole entity that would be affected by this rulemaking, and Eglin AFB is not a small governmental jurisdiction, small organization, or small business, as defined by the RFA. Because this action directly affects Eglin AFB and not a small entity, NMFS concluded the action will not result in a significant economic impact on a substantial number of small entities. No comments were received regarding this certification. As a result, a regulatory flexibility analysis is not required and none has been prepared.

The Assistant Administrator for Fisheries has determined that there is good cause under the Administrative Procedure Act to waive the 30-day delay in the effective date (5 U.S.C. 553(d)(3)) of the measures contained in the final rule. The USAF is the only entity subject to the regulations, and it has informed NMFS that it requests that this final rule take effect by February 13, 2018, to accommodate a USAF testing and training exercise planned for that day in the EGTTR. Any delay of enacting the final rule would result in either: (1) A suspension of planned naval training, which would disrupt vital training essential to national security; or (2) the USAF's procedural non-compliance with the MMPA (should the USAF conduct testing and training without an LOA), thereby resulting in the potential for unauthorized takes of marine mammals. Moreover, the USAF is ready to implement the rule immediately. For these reasons, the Assistant Administrator finds good cause to waive the 30-day delay in the effective date.

List of Subjects in 50 CFR Part 218

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

Dated: February 5, 2018.

Samuel D. Rauch III,

Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

For reasons set forth in the preamble, 50 CFR part 218 is amended as follows:

PART 218—REGULATIONS GOVERNING THE TAKING AND IMPORTING OF MARINE MAMMALS

■ 1. The authority citation for part 218 is revised to read as follows:

Authority: 16 U.S.C. 1361 *et seq.,* unless otherwise noted.

■ 2. Add subpart G to part 218 to read as follows:

Subpart G—Taking of Marine Mammals Incidental to Testing and Training Activities Conducted at the Eglin Gulf Test and Training Range in the Gulf of Mexico

Sec.

Subpart G—Taking of Marine Mammals Incidental to Testing and Training Activities Conducted at the Eglin Gulf Test and Training Range in the Gulf of Mexico

§ 218.60 Specified activity and specified geographical region.

(a) Regulations in this subpart apply only to Eglin Air Force Base (Eglin AFB) and those persons it authorizes to conduct activities on its behalf, for the taking of marine mammals as outlined in paragraph (b) of this section and incidental to testing and training missions in the Eglin Gulf Test and Training Range (EGTTR).

(b) The taking of marine mammals by Eglin AFB pursuant to a Letter of Authorization (LOA) is authorized only if it occurs at the EGTTR in the Gulf of Mexico.

§ 218.61 Effective dates.

Regulations in this subpart are effective February 13, 2018 through February 12, 2023.

§ 218.62 Permissible methods of taking.

Under a Letter of Authorization (LOA) issued pursuant to § 216.106 of this chapter and § 218.66, the Holder of the LOA (herein after Eglin AFB) may incidentally, but not intentionally, take marine mammals by Level A and Level B harassment associated with EGTTR activities within the area described in § 218.60 provided the activities are in compliance with all terms, conditions, and requirements of these regulations in this subpart and the appropriate LOA.

§ 218.63 Prohibitions.

Notwithstanding takings contemplated in § 218.60 and authorized by an LOA issued under § 216.106 of this chapter and § 218.66, no person in connection with the activities described in § 218.60 may:

(a) Violate, or fail to comply with, the terms, conditions, and requirements of this subpart or an LOA issued under § 216.106 of this chapter and § 218.66.

(b) Take any marine mammal not specified in such LOAs;

(c) Take any marine mammal specified in such LOAs in any manner other than as specified;

(d) Take a marine mammal specified in such LOAs if NMFS determines such taking results in more than a negligible impact on the species or stocks of such marine mammal; or

§ 218.64 Mitigation requirements.

When conducting activities identified in § 218.60, the mitigation measures contained in the LOA issued under § 216.106 of this chapter and § 218.66 must be implemented. These mitigation measures shall include but are not limited to the following general conditions:

(a) If daytime weather and/or sea conditions preclude adequate monitoring for detecting marine mammals and other marine life, EGTTR operations must be delayed until adequate sea conditions exist for monitoring to be undertaken.

(b) Restrictions on time of activities.

(1) Missions involving the use of live bombs, missiles and rockets shall only occur during daylight hours.

(2) Missions during daylight hours shall occur no earlier than two hours after sunrise and no later than two hours prior to sunset.

(c) Required delay of live ordnance mission activities shall occur if a protected species, large schools of fish or large flocks of birds feeding at the surface are observed within the ZOI. Mission activities cannot resume until one of the following conditions is met:

(1) Protected species marine mammal(s) is confirmed to be outside of the ZOI on a heading away from the target area; or

(2) Protected species marine mammal(s) is not seen again for 30 minutes and presumed to be outside the Level A harassment ZOI.

(3) Large groupings of fish or birds leading to required delay are confirmed outside of the ZOI.

(d) Gunnery operations shall require employment of the following mitigation measures.

(1) Use of 105-millimeter (mm) training rounds (TR) during nighttime missions.

(2) Ramp-up procedures requiring the use of the lowest caliber munition and proceeding to the highest, which means the munitions would be fired in the order of 25 mm, 40 mm, and 105 mm.

(3) Any pause in live fire activities greater than 10 minutes shall require reinitiation of protected species surveys.

(4) Missions shall be conducted within the 200-meter (m) isobaths to provide greater protection to several species.

(e) If one or more sperm or baleen whales are detected during pre-mission monitoring activities, mission activities shall be aborted/suspended for the remainder of the day.

(f) Additional mitigation measures as contained in an LOA.

§ 218.65 Requirements for monitoring and reporting.

(a) Holders of LOAs issued pursuant to § 218.66 for activities described in § 218.60(a) are required to cooperate with NMFS, and any other Federal, state, or local agency with authority to monitor the impacts of the activity on marine mammals. If the authorized activity identified in § 218.60(a) is thought to have resulted in the mortality or injury of any marine mammals or take of marine mammals not identified in § 218.60(b), then the Holder of the LOA must notify the Director, Office of Protected Resources, NMFS, or designee, by telephone (301) 427–8401, and the Southeast Regional Office (phone within 24 hours of the injury or death).

(b) Monitoring shall be conducted by personnel who have completed Eglin's Marine Species Observer Training Course, which was developed in cooperation with the National Marine Fisheries Service.

(c) The Holder of the LOA shall use mission-reporting forms to track their use of the EGTTR for testing and training missions and to track marine mammal observations.

(d) Depending on the mission category, visual aerial-based, vessel-based, or video-based marine mammal surveys shall be conducted before and after live ordnance mission activities each day.

(e) Vessel-based surveys shall begin approximately one and one-half hour prior to live weapon deployment and shall be completed 30 minutes prior to the start of mission.

(f) Surveys shall continue for approximately one hour or until the entire ZOI has been adequately surveyed, whichever comes first.

(g) Post-mission monitoring surveys shall commence once the mission has ended or as soon as the mission area is declared safe.

(h) Vessel-based post-mission surveys shall be conducted for 30 minutes after completion of live ordnance missions.

(i) Any marine mammals detected in the ZOI during post-mission surveys, for which take are authorized, shall be counted as takes by Level B harassment. Any marine mammals detected in the ZOI during post-mission surveys, for which take is not authorized, shall be reported immediately to the Office of Protected Resources, NMFS.

(j) A minimum of two dedicated observers shall be stationed on each vessel.

(k) Observers shall utilize optical equipment with sufficient magnification to allow observation of surfaced animals.

(l) The size of the survey area for each mission shall be determined according to the radius of impact for the given threshold of each munition/detonation scenario. These ranges shall be monitored during pre-mission surveys for each activity.

(m) Some missions shall be delayed to allow survey platforms to evacuate the human safety zone after pre-missions surveys are completed.

(n) Any aerial-based pre-mission surveys shall be conducted by observers aboard non-mission aircraft or mission aircraft who have completed the Marine Species Observer Training.

(o) Gunship standard procedures initiated prior to initiation of live-firing events shall require at least two complete orbits around the survey mission site at the appropriate airspeed and monitoring altitude and include the following:

(1) Monitoring for marine mammals shall continue throughout the mission by mission crew;

(2) Where applicable aircraft optical and electronic sensors shall be used for marine mammal observation;

(3) If any marine mammals are detected during pre-mission surveys or during the mission, activities shall be immediately halted until the ZOI area is clear of all marine mammals, or the mission shall be relocated to another target area. If the mission is relocated, the pre-mission survey procedures shall be repeated;

(4) If multiple firing missions are conducted within the same flight, standard clearance procedures shall precede each mission; and

(5) Gunship crews shall conduct a post-mission survey beginning at the operational altitude and proceeding through a spiraling descent to the designated monitoring altitude.

(p) Video-based monitoring from the GRATV shall be conducted where appropriate via live high-definition video feed.

(1) Supplemental video monitoring shall be conducted through the employment of additional aerial assets including aerostats and drones when available.

(2) [Reserved]

(q) Acoustic Monitoring:

(1) Eglin AFB shall conduct a passive acoustic monitoring (PAM) study as an initial step towards understanding acoustic impacts from underwater detonations, if funding is approved;

(2) Eglin AFB shall conduct PAM for marine mammal vocalizations before, during, and after live missions in the EGTTR, once funding is approved; and

(3) The results of the PAM study shall be submitted to NMFS OPR as a draft monitoring report within 90 days of completion of the study.

(r) The Holder of the LOA is required to:

(1) Submit an annual draft report to NMFS OPR on all monitoring conducted under the LOA within 90 days of the completion of marine mammal monitoring, or 60 days prior to the issuance of any subsequent LOA for projects at the EGTTR, whichever comes first. A final report shall be prepared and submitted within 30 days following resolution of comments on the draft report from NMFS. This report must contain, at a minimum, the following information:

(i) Date and time of each EGTTR mission;

(ii) A complete description of the pre-mission and post-mission activities related to mitigating and monitoring the effects of EGTTR missions on marine mammal populations; and

(iii) Results of the monitoring program, including numbers by species/stock of any marine mammals noted injured or killed as a result of the EGTTR mission and number of marine mammals (by species if possible) that may have been harassed due to presence within the zone of influence.

(2) The draft report shall be subject to review and comment by NMFS. Any recommendations made by NMFS must be addressed in the final report prior to acceptance by NMFS. The draft report shall be considered the final report for this activity under the LOA if NMFS has not provided comments and recommendations within 90 days of receipt of the draft report.

(s) Reporting injured or dead marine mammals:

(1) In the unanticipated event that the specified activity clearly causes the take of a marine mammal in a manner prohibited by the LOA, such as an injury for species not authorized (Level A harassment), serious injury, or mortality, Eglin AFB shall immediately cease the specified activities and report the incident to the Office of Protected Resources, NMFS, and the Southeast Regional Office, NMFS. The report must include the following information:

(i) Time and date of the incident;

(ii) Description of the incident;

(iii) Environmental conditions (*e.g.,* wind speed and direction, Beaufort sea state, cloud cover, and visibility);

(iv) Description of all marine mammal observations in the 24 hours preceding the incident;

(v) Species identification or description of the animal(s) involved;

(vi) Fate of the animal(s); and

(vii) Photographs or video footage of the animal(s).

(2) Activities shall not resume until NMFS is able to review the circumstances of the prohibited take. NMFS shall work with Eglin AFB to determine what measures are necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. Eglin AFB may not resume their activities in the EGTTR until notified by NMFS.

(3) In the event that Eglin AFB discovers an injured or dead marine mammal, and the lead observer determines that the cause of the injury or death is unknown and the death is relatively recent (*e.g.,* in less than a moderate state of decomposition), Eglin AFB shall immediately report the incident to the Office of Protected Resources, NMFS, and the Southeast Regional Office, NMFS. The report must include the same information identified in paragraph (p)(1) of this section. Activities may continue while NMFS reviews the circumstances of the incident. NMFS shall work with Eglin AFB to determine whether additional mitigation measures or modifications to the activities are appropriate.

(4) In the event that Eglin AFB discovers an injured or dead marine mammal, and the lead observer determines that the injury or death is not associated with or related to the activities authorized in the LOA (*e.g.,* previously wounded animal, carcass with moderate to advanced decomposition, scavenger damage), Eglin AFB shall report the incident to the Office of Protected Resources, NMFS, and the Southeast Regional Office, NMFS, within 24 hours of the discovery. Eglin AFB shall provide photographs or video footage or other documentation of the stranded animal sighting to NMFS.

(5) Additional Conditions:

(i) The Holder of the LOA must inform the Director, Office of Protected Resources, NMFS, (301–427–8401) or designee prior to the initiation of any changes to the monitoring plan for a specified mission activity.

(ii) A copy of the LOA must be in the possession of the safety officer on duty each day that EGTTR missions are conducted.

(iii) The LOA may be modified, suspended or withdrawn if the holder fails to abide by the conditions prescribed herein, or if NMFS determines the authorized taking is having more than a negligible impact on the species or stock of affected marine mammals.

§ 218.66 Letters of Authorization.

(a) To incidentally take marine mammals pursuant to these regulations, Eglin AFB must apply for and obtain an LOA.

(b) An LOA, unless suspended or revoked, may be effective for a period of time not to exceed the expiration date of these regulations.

(c) If an LOA expires prior to the expiration date of these regulations, Eglin AFB must apply for and obtain a renewal of the LOA.

(d) In the event of projected changes to the activity or to mitigation and monitoring measures required by an LOA, Eglin AFB must apply for and obtain a modification of the LOA as described in § 218.67.

(e) The LOA shall set forth:

(1) Permissible methods of incidental taking;

(2) Number of marine mammals, by species and age class, authorized to be taken;

(3) Means of effecting the least practicable adverse impact (*i.e.,* mitigation) on the species of marine mammals authorized for taking, on its habitat, and on the availability of the species for subsistence uses; and

(4) Requirements for monitoring and reporting.

(f) Issuance of an LOA shall be based on a determination that the level of taking shall be consistent with the findings made for the total taking allowable under these regulations.

(g) Notice of issuance or denial of an LOA shall be published in the **Federal Register** within 30 days of a determination.

§ 218.67 Renewals and modifications of Letters of Authorization.

(a) An LOA issued under § 216.106 of this chapter and § 218.66 for the activity identified in § 218.60(a) shall be renewed or modified upon request by the applicant, provided that:

(1) The specified activity and mitigation, monitoring, and reporting measures, as well as the anticipated impacts, are the same as those described and analyzed for these regulations (excluding changes made pursuant to the adaptive management provision in paragraph (c)(1) of this section); and

(2) NMFS determines that the mitigation, monitoring, and reporting measures required by the previous LOA under these regulations were implemented.

(b) For an LOA modification or renewal request by the applicant that includes changes to the activity or the mitigation, monitoring, or reporting (excluding changes made pursuant to the adaptive management provision in paragraph (c)(1) of this section) that do not change the findings made for the regulations or result in no more than a minor change in the total estimated number of authorized takes (or distribution by species or years), NMFS may publish a notice of proposed LOA in the **Federal Register**, including the associated analysis illustrating the change, and solicit public comment before issuing the LOA.

(c) An LOA issued under § 216.106 of this chapter and § 218.66 for the activity identified in § 218.60(a) may be modified by NMFS under the following circumstances:

(1) Adaptive Management—NMFS may modify (including augment) the existing mitigation, monitoring, or reporting measures (after consulting with Eglin AFB regarding the practicability of the modifications) if doing so creates a reasonable likelihood of more effectively accomplishing the goals of the mitigation and monitoring set forth in the preamble for these regulations;

(2) Possible sources of data that could contribute to the decision to modify the mitigation, monitoring, or reporting measures in an LOA are:

(i) Results from Eglin AFB's annual monitoring reports;

(ii) Results from other marine mammal and sound research or studies; or

(iii) Any information that reveals marine mammals may have been taken in a manner, extent or number not authorized by these regulations or subsequent LOAs.

(3) If, through adaptive management, the modifications to the mitigation, monitoring, or reporting measures are substantial, NMFS will publish a notice of proposed LOA in the **Federal Register** and solicit public comment.

(4) Emergencies—If NMFS determines that an emergency exists that poses a significant risk to the well-being of the species or stocks of marine mammals specified under LOAs issued pursuant to § 216.106 of this chapter and § 218.60, an LOA may be modified without prior notice or opportunity for public comment. Notice would be published in the **Federal Register** within 30 days of the action.

§§ 218.68–218.69 [Reserved]

[FR Doc. 2018–02511 Filed 2–7–18; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 622

[Docket No. 160426363–7275–02]

RIN 0648–XG009

Coastal Migratory Pelagic Resources of the Gulf of Mexico and Atlantic Region; Commercial Trip Limit Increase in the Atlantic Southern Zone

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

ACTION: Temporary rule; trip limit increase.

SUMMARY: NMFS increases the commercial trip limit for king mackerel in or from Federal waters in an area off the Florida east coast between the border of Flagler and Volusia Counties and the border of Miami-Dade and Monroe Counties in the Atlantic southern zone to 75 fish per day. This commercial trip limit increase is necessary to maximize the socioeconomic benefits associated with harvesting the commercial quota of Atlantic migratory group king mackerel.

DATES: This temporary rule is effective from 12:01 a.m., local time, February 5, 2018, through February 28, 2018.

FOR FURTHER INFORMATION CONTACT: Frank Helies, NMFS Southeast Regional Office, telephone: 727–824–5305, email: *frank.helies@noaa.gov.*

SUPPLEMENTARY INFORMATION: The fishery for coastal migratory pelagic fish includes king mackerel, Spanish mackerel, and cobia, and is managed under the Fishery Management Plan for the Coastal Migratory Pelagic Resources of the Gulf of Mexico and Atlantic Region (FMP). The FMP was prepared by the Gulf of Mexico and South Atlantic Fishery Management Councils and is implemented by NMFS under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) by regulations at 50 CFR part 622. All weights for Atlantic king mackerel below apply as either round or gutted weight.

On April 11, 2017, NMFS published a final rule to implement Amendment 26 to the FMP in the **Federal Register** (82 FR 17387). That final rule adjusted the management boundaries, zones, and annual catch limits for Atlantic migratory group king mackerel (Atlantic king mackerel). The commercial quota for Atlantic king mackerel in the southern zone is 4,540,640 lb (2,059,600 kg) for the current fishing year, March 1, 2017, through February 28, 2018 (50 CFR 622.384(b)(2)(ii)).

The Atlantic king mackerel southern zone encompasses an area of Federal waters south of a line extending from the state border of North Carolina and South Carolina, as specified in 50 CFR 622.2, and north of a line extending due east from the border of Miami-Dade and Monroe Counties, Florida (50 CFR 622.369(a)(2)(ii)). From October 1 through January 31, the commercial trip limit for king mackerel in or from the southern zone that may be possessed on board or landed from a federally permitted vessel is 50 fish per day (50 CFR 622.385(a)(2)(i)(A)).

However, if NMFS determines that less than 70 percent of the Atlantic southern zone commercial quota has been harvested by February 1, then during the month of February, the commercial trip limit for king mackerel in or from a specified area of the southern zone that may be possessed on board or landed from a federally permitted vessel is increased to 75 fish per day (50 CFR 622.385(a)(1)(ii)(D)). The area of the southern zone in which the commercial trip limit increase applies is in Federal waters south of 29°25′ N lat., which is a line that extends due east from the border of Flagler and Volusia Counties, Florida, and north of 25°20′24″ N lat., which is