



MARINE MAMMAL COMMISSION

29 December 2015

Ms. Jolie Harrison, Chief
Permits and Conservation Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910-3225

Dear Ms. Harrison:

The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the U.S. Air Force's (the Air Force) application seeking authorization under section 101(a)(5)(D) of the Marine Mammal Protection Act (the MMPA) to take marine mammals by harassment incidental to conducting maritime weapon systems evaluation program (WSEP) activities at Eglin Air Force Base (Eglin) off Florida. The Commission also has reviewed the National Marine Fisheries Service's (NMFS) 23 December 2015 notice (80 Fed. Reg. 79843) announcing receipt of the application and proposing to issue the authorization, subject to certain conditions. The Commission commented on a similar authorization in its 24 December 2014 letter. However, due to unavailability of some of the live munitions in 2015¹, the Air Force has requested another incidental harassment authorization to finish conducting WSEP activities in 2016.

During the past few years, NMFS has authorized the taking of marine mammals incidental to the Air Force's naval explosive ordnance disposal school, precision strike weapon, and air-to-surface gunnery activities at Eglin through two separate rulemakings². NMFS also authorized the incidental harassment of marine mammals during maritime strike operation activities and WSEP activities through individual incidental harassment authorizations. The Commission understands that the Air Force currently is working with NMFS to incorporate all of its activities into a single rulemaking and National Environmental Policy Act (NEPA) document in the near future, which the Commission fully supports.

Background

The Air Force plans to conduct its WSEP activities during a three-week timeframe³ in February and March 2016. The purpose of those activities is to evaluate maritime deployment data, tactics, techniques, and procedures and determine the impact of those techniques and procedures on combat training. Those activities involve the use of gunnery rounds, rockets, missiles, and bombs

¹ Only 1 percent of the activities were conducted in 2015.

² One of which expires in 2017 and the other in 2019.

³ The Commission understands that the activities would occur on eight days.

(ranging from a 45 g gunnery round to a 429 kg bomb). The Air Force would use stationary, towed, and remotely-controlled boat targets and would conduct up to two missions per day⁴. The Air Force would conduct all WSEP activities during daylight hours in waters approximately 35 m in depth and at a distance of approximately 27 km from the coast.

NMFS preliminarily has determined that the proposed activities could cause both Level A and B harassment of bottlenose, Atlantic spotted, and unidentified bottlenose/Atlantic spotted dolphins but anticipates that any impact on the affected species and stocks would be negligible. NMFS does not anticipate any take of marine mammals by serious injury or death and believes the proposed mitigation measures provide the means of effecting the least practicable impact on marine mammal species or stocks and their habitat. The proposed mitigation, monitoring, and reporting measures include—

- restricting WSEP activities from occurring when Beaufort sea states are greater than 4;
- using trained marine species observers to conduct vessel-based monitoring from five vessels for up to 2 hours before, during⁵, and for 30 minutes after the proposed activities;
- using delay and shut-down procedures;
- using live-video feed from three high-definition cameras to supplement its vessel-based monitoring to detect marine mammals and implement mitigation measures;
- reporting injured and dead marine mammals immediately to NMFS's local stranding network, regional office, and Office of Protected Resources; and
- submitting a final report.

Marine mammal takes

As indicated in previous Commission letters, the methods used by the Air Force to estimate zones of exposure for various thresholds and the numbers of marine mammal takes are inconsistent. The Air Force estimated the zones of exposure for both a single detonation of each munition type and a representative scenario based on the maximum number of munitions that could be expended on a single day⁶ (Tables 6 and 4 of the *Federal Register* notice, respectively). The latter is the more appropriate method for determining the distances to the sound exposure level (SEL) thresholds⁷ and also serves as the zone of exposure for implementing mitigation. However, the Air Force then estimated the numbers of marine mammal takes by multiplying the number of animals estimated to be taken by a single detonation of each munition type⁸ by the number of munitions that would be detonated, irrespective of when those detonations would occur. That method does not consider the accumulation of energy in a 24-hour period⁹ that should be used for cumulative SEL thresholds, which would more accurately correspond to zones of exposure for the representative scenario and

⁴ The Commission understands that approximately 15 to 20 munitions could be dropped from 10 to 15 aircraft each day.

⁵ The observers would be required to leave the mission area at least 30 minutes prior to the activities and move to the periphery of the safety zone (approximately 15 km away), which is based on human safety.

⁶ Similar to a worst-case scenario.

⁷ Which served as the basis for the criteria with the greatest radii for the dual criteria (i.e., SEL or peak pressure).

⁸ Based on an area associated with the relevant threshold and density estimates adjusted by depth distributions (i.e., a slightly modified area x density method).

⁹ Which is NMFS's current guidance.

serve as more realistic estimates of numbers of animals that could be taken during WSEP activities compared to the Air Force's current take estimation method.

NMFS and the Air Force have recognized that the take estimation method likely overestimates the numbers of marine mammals that could be taken, because the Air Force assumed a purely additive¹⁰ process rather than accounting for sound propagation loss for sequential detonations. Since NMFS still uses a 24-hour reset time, species-specific takes should be based on the number of animals taken in a given day and the number of days those activities would occur—in this instance, the numbers of animals taken during representative scenarios for worst-case and typical scenarios for the total number of activity days. This is especially important for any proposed future rulemakings. Therefore, to better estimate the potential level of taking, the Commission recommends that, prior to issuing the proposed authorization and accepting as complete any future incidental take applications from the Air Force, NMFS require the Air Force to re-estimate the numbers of marine mammals that could be taken based on the numbers estimated to be taken during representative scenarios, which may include the worst-case scenario and a more typical scenario, for the total number of days of WSEP activities.

Mitigation and monitoring measures

Although the Air Force proposes to use live-feed video cameras to supplement its ability to detect marine mammals when implementing mitigation measures, the Commission remains concerned that those measures are insufficient. In previous Commission letters regarding the Air Force's activities at Eglin, the Commission has recommended that NMFS require the Air Force to determine the effectiveness of its mitigation measures and to supplement those measures with passive acoustic monitoring devices, which could be installed on the Air Force's instrumentation barge¹¹ along with the cameras and weapon tracking equipment. For the proposed authorization, the mission area would be cleared of marine mammals for up to 30 minutes, and likely longer, before the munitions are detonated. The observers then would move to the periphery of the safety zone, more than 15 km from the target. The Commission is not convinced that the Air Force would be able to monitor effectively for marine mammals entering the 706.5 km² area during the timeframe prior to detonation. Further, the Air Force has noted the limited effectiveness of the observers scanning the periphery of the safety zone for marine mammals.

For these reasons, the Commission again recommends that NMFS and the Air Force assess practicable ways to supplement the Air Force's mitigation measures with passive acoustic monitoring and determine the effectiveness of its suite of mitigation measures. In response to the Commission's 24 December 2014 letter, NMFS indicated that the Air Force would continue to research the feasibility of supplementing existing monitoring efforts with passive acoustic monitoring devices for future activities (80 Fed. Reg. 17398). Specifically, the Air Force is willing to discuss alternatives with the Commission and NMFS during the development of the upcoming rulemaking and NEPA documentation. The Commission looks forward to collaborating with NMFS and the Air Force on supplementing the Air Force's mitigation measures with passive acoustic monitoring and additionally determining the effectiveness of its suite of mitigation measures for activities at Eglin.

¹⁰ Or essentially a multiplicative process as detailed previously.

¹¹ The Gulf Range Armament Test Vessel (GRATV).

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The Commission trusts you will find its letter helpful. Please contact me if you have questions regarding the Commission's comments and recommendation.

Sincerely,

A handwritten signature in blue ink that reads "Rebecca J. Lent". The signature is written in a cursive style with a large, sweeping initial "R".

Rebecca J. Lent, Ph.D.
Executive Director