

MARINE MAMMAL COMMISSION
4340 East-West Highway, Room 700
Bethesda, MD 20814-4447

13 November 2008

Mr. P. Michael Payne
Chief, Permits Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910

Dear Mr. Payne:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the National Marine Fisheries Service's 14 October 2008 *Federal Register* notice proposing to promulgate regulations under section 101(a)(5)(A) of the Marine Mammal Protection Act. The regulations would authorize the U.S. Navy to take small numbers of marine mammals incidental to training activities in the Southern California Range Complex (SOCAL) off the southern California coast for the next five years. Activities covered by the authorization would include the use of mid-frequency active tactical sonar from 1 to 10 kHz, high-frequency sonar systems greater than 10 kHz but less than 100 kHz, and detonations of various types of ordnance (e.g., HARPOON surface-to-surface and air-to-surface missiles, air-to-surface Maverick missiles, MD32, MK82, MK83, and MK48 heavyweight submarine-launched torpedoes). The Navy is requesting authorization to take by Level B harassment up to 31 species of cetaceans and 6 species of pinnipeds incidental to the proposed operations, and up to 10 beaked whales by serious injury or mortality. In a 23 May 2008 letter (enclosed and incorporated by reference) the Marine Mammal Commission provided comments and recommendations in response to the Service's 17 April 2008 *Federal Register* notice proposing to develop regulations to govern Navy activities in the SOCAL Range Complex.

RECOMMENDATIONS

The Service's proposed regulations do not incorporate all of the Commission's previous recommendations regarding activities on the SOCAL range. To address our remaining concerns, the Marine Mammal Commission recommends that the Service work with the Navy—

- to modify the final rule by (1) clarifying which monitoring and mitigation measures will be required, (2) requiring performance testing and validation of those measures, (3) requiring new measures to address remaining monitoring and mitigation shortcomings, and (4) requiring continued preparation of post-activity reports for subsequent analysis;
- to modify the Navy's mitigation measures by requiring that the Navy delay resumption of full operational sonar use following a power-down or shutdown for 30 minutes if the sighted animal can be identified to the species level and the species is not deep diving and 60 minutes if it cannot be identified or is known to be a member of a deep-diving species such as sperm and beaked whales;

- to modify the Navy's mitigation measures by allowing resumption of full operations before the end of the 30-minute period (when the species can be identified and is not a deep diver) or 60-minute period (the species cannot be determined or can be determined but is a deep diver) only when the Navy has good evidence that the marine mammal seen outside the safety zone is the same animal originally sighted within the zone;
- to develop a database for storing original records of marine mammal interactions; the database should meet the Navy's security requirements but also maintain what are potentially valuable records about the Navy's interactions with and effects on marine mammals; and
- to prepare an adequate analysis under the National Environmental Policy Act of proposed operations at Tanner Bank, but until such an analysis has been completed, the Service withhold authorization for the taking of marine mammals at that site.

RATIONALE

The Commission offers the following rationale for those recommendations.

Monitoring and Mitigation Performance Verification

In its 23 May 2008 letter to the Service, the Commission expressed concern that the Navy has yet to evaluate fully the effectiveness of the proposed monitoring and mitigation measures it uses for many of its military readiness operations. In the original draft SOCAL monitoring plan provided with the Service's proposed rule, the Navy proposed to undertake studies to (1) determine whether animals have been injured in the exercise area by conducting aerial surveys before and after two major exercises per year (at least one of which includes multiple explosive detonations), and (2) compare the effectiveness of professional marine mammal observers and Navy lookouts. Subsequently the Navy prepared a revised draft monitoring plan. However, the revised plan apparently was completed after publication of the proposed rule, and it is not clear whether and how it will be incorporated into the Navy's operations under the proposed rule. Performance testing and verification of monitoring and mitigation measures are vital for ensuring that the proposed activities do not have unacceptable adverse effects on marine mammals.

The Navy also has provided five post-activity reports for sonar exercises conducted in 2006 or 2007. The reports compare the results of visual and passive acoustic monitoring to modeled risk predictions in the DEIS and proposed rule. These reports provide quantitative estimates of how many marine mammals are being detected versus the estimated number encountered. As such, they are potentially very valuable in reducing some of the uncertainty regarding the actual effects of Navy operations. However, here again, the reports are not specifically referenced in the proposed rule and are not analyzed as thoroughly as they should be.

Importantly, neither the Navy nor the Service has attempted to reconcile longstanding disparate views that visual and passive acoustic monitoring offer only limited detection capability

but, at the same time, provide a sufficient means for mitigating the potential adverse effects of Navy operations. For example, the agencies assert that more than 60 potential lethal or injurious takes have been mitigated to zero by posting visual observers and opportunistic monitoring using sonobuoys and other existing passive acoustic sensing capabilities (most with serious limitations in frequency response or signal detection), despite the fact that neither the Navy nor the Service has conducted the necessary performance testing for these measures to determine if and how well they work.

For all these reasons the Marine Mammal Commission recommends that the Service work with the Navy to modify the final rule by (1) clarifying which monitoring and mitigation measures will be required, (2) requiring performance testing and validation of those measures, (3) requiring new measures to address remaining monitoring and mitigation shortcomings, and (4) requiring continued preparation of post-activity reports for subsequent analysis. The Service and the Navy are fully capable of conducting these assessments and they are essential for determining and mitigating the impact of Navy operations.

Resumption of Sonar Use Following Shutdown or Reduction

The Commission's comments on this topic are the same as those we are sending the Service regarding the Navy's Atlantic Fleet Active Sonar Training (AFAST) operations. The Navy's current requirements for resuming and powering up sonar use following shutdown or reduction after a marine mammal sighting are based on three criteria: (1) the animal is seen leaving the safety zone (which rarely occurs), (2) the animal is not seen for 30 minutes (which often happens even if the animal is not a deep diver because successive surfacings are not detected), or (3) the ship travels 2,000 yards beyond the point at which shutdown or a source level reduction was initiated. In its previous letters to the Service and the Navy, the Commission has recommended that these criteria be replaced to require monitoring periods of 30 minutes for most marine mammals and 60 minutes for deep-diving species (e.g., sperm and beaked whales), unless the animal is resighted at a safe distance before that time. The proposed rule neither adopts this recommendation nor provides a basis for rejecting it. Procedures to reduce or stop sonar intensity in the presence of a marine mammal are considered necessary to avoid exposing the animal to excessively high sound intensities. Such mitigation measures must take into account not only the operations being conducted, but also must account for the natural history, behavior, and movements of the potentially affected marine mammal(s). The best available scientific evidence clearly indicates that a 30-minute shut-down or reduction in source level is not sufficient for deep-diving marine mammals that may remain submerged for an hour or longer. By failing to account for this behavior, the Service and the Navy are likely reducing the effectiveness of this mitigation measure and increasing the risk that deep-diving whales will be exposed to excessively intense noise. The Marine Mammal Commission therefore recommends that the Service work with the Navy to modify the Navy's mitigation measures by requiring that the Navy delay resumption of full operational sonar use following a power-down or shutdown for 30 minutes if the sighted animal can be identified to the species level and the species is not deep diving and 60 minutes if it cannot be identified or is known to be a member of a deep-diving species such as sperm and beaked whales. The Commission notes that in many cases it may be difficult or impossible for watchstanders to determine the species involved, in

which case the Commission believes the Navy should take a precautionary approach and either power-down or shut down its operations for 60 minutes.

Under ideal circumstances, operations could resume if the animal is re-sighted at a safe distance before that time. However, in practice it will be difficult, if not impossible, to confirm that a whale sighted at a safe distance is the same animal sighted within a protection zone. Absent such confirmation, the Marine Mammal Commission also recommends that the Service work with the Navy to modify the Navy's mitigation measures by allowing resumption of full operations before the end of the 30-minute period (when the species can be identified and is not a deep diver) or 60-minute period (the species cannot be determined or can be determined but is a deep diver) only when the Navy has good evidence that the marine mammal seen outside the safety zone is the same animal originally sighted within the zone.

The Commission also continues to be concerned about the adequacy of the criterion that allows resumption of sonar use once a vessel has moved a certain distance (e.g., 2,000 yards) after sighting a marine mammal. If both the sighted marine mammal and the ship are moving, then the estimation of distance cannot be judged on the basis of the ship's speed only. This is why the Commission recommended that a safer course of action might be to adopt a simple rule of 30 minutes for identified marine mammals that are not deep divers and 60 minutes for known deep divers like sperm and beaked whales, unless the animal is resighted at a safe range before that time as recommended above. If the Navy wishes to use distance as an indicator of safety, then it must establish a safe distance criterion that fully accounts for the movements and speeds of both the ship and the marine mammal.

Reporting

The proposed rule adequately addresses the Commission's previous recommendation that annual reports be prepared to document in full the methods, results, and interpretation of all monitoring tasks. Those reports should contain the dates and locations of operations and details regarding all marine mammal sightings, including estimates of the number and nature of potential takes of marine mammals by harassment or in other ways, the types of mitigation measures implemented, and the success of those measures. However, the proposed rule indicates that the ship's logs of sightings, power-downs, and other mitigation actions are retained only for 30 days. Those logs constitute the original records of actions taken and are of great potential value to reviewers seeking to verify the Navy's reports (this is standard practice in science and should be here, as well); characterize the nature of the interactions; and devise more effective mitigation measures. In short, maintaining those records for a longer period of time is essential for full assessment of mitigation efforts and potential effects on marine mammals. Therefore, the Marine Mammal Commission recommends that the Service work with the Navy to develop a database for storing original records of marine mammal interactions; the database should meet the Navy's security requirements but also maintain what are potentially valuable records about the Navy's interactions with and effects on marine mammals.

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Tanner Banks

In its 23 May 2008 letter to the Service, the Commission recommended that the Service withhold authorization for the taking of marine mammals incidental to the establishment and operation of an offshore, shallow-water minefield on Tanner Banks. The Commission noted that the biological importance of Tanner Banks is well documented and any plans to increase naval activity in that area should be carefully evaluated and weighed against the options of increasing the use of alternative, existing countermeasure sites or placing the new minefield site elsewhere where it would be less likely to have a significant biological impact. In a separate 23 May 2008 letter to the Navy the Commission recommended that the Navy remove the mine-countermeasures range on Tanner Bank from consideration under the SOCAL DEIS and address it as a separate action only after more detailed supporting information had been developed. The basis for that recommendation was that the Navy had not given full consideration to the use of Tanner Bank as required under the National Environmental Policy Act. For the same reason, the Commission does not believe that at this time the Service has a sufficient basis for authorizing Navy activities in that area. Therefore, the Marine Mammal Commission recommends that the Service work with the Navy to prepare an adequate analysis under the National Environmental Policy Act of proposed operations at Tanner Bank, but until such an analysis has been completed, the Service withhold authorization for the taking of marine mammals at that site.

Please contact me if you have questions concerning any of these comments or recommendations.

Sincerely,



Timothy J. Ragen, Ph.D.
Executive Director

Enclosure