



MARINE MAMMAL COMMISSION

24 September 2019

Ms. Jolie Harrison, Chief
Permits and Conservation Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910-3226

Dear Ms. Harrison:

The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the National Marine Fisheries Service's (NMFS) 13 September 2019 notice (84 Fed. Reg. 48388) and the letter of authorization (LOA) application submitted by the U.S. Navy (the Navy) seeking the extension of regulations under section 101(a)(5)(A) of the Marine Mammal Protection Act (the MMPA). The taking would be incidental to conducting training and research, development, test, and evaluation activities within the Hawaii-Southern California Fleet Training and Testing (HSTT) study area (Phase III activities¹). The Navy requested to extend its current final rule that authorized such activities from 2023 to 2025². The Commission reviewed and provided recommendations in its [13 July 2019 letter](#) on the proposed rule that governed activities from 2018 to 2023. The Commission will not reiterate those recommendations herein but maintains that the recommendations that NMFS did not incorporate into the final rule are still relevant and pertain to the extension of the final rule and asks that they be reviewed again in the course of considering the extension.

Background

The Navy's HSTT study area is in the Pacific Ocean and encompasses the waters along the coast of Southern California, around the Hawaiian Islands (including the Hawaii Range Complex), and the associated transit corridor. The activities would involve the use of low-, mid-³, high- and very high-frequency active sonar, weapons systems, explosive and non-explosive practice munitions and ordnance, high-explosive underwater detonations, expended materials, vibratory and impact hammers, airguns, electromagnetic devices, high-energy lasers, vessels, underwater vehicles, and aircraft. The Navy would implement mitigation measures that consist of both procedural mitigation measures and designation of mitigation areas.

¹ NMFS authorized the Navy to conduct similar activities first under the Tactical Training Theater Assessment and Planning (TAP I) LOA applications and second under Phase II LOA applications.

² The timeframe during which a letter of authorization issued by NMFS is valid recently was increased from five to seven years based on the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (section 316 of Public Law 115-232).

³ MFA.

Beaked whale considerations

NMFS did not propose to authorize beaked whale⁴ mortalities subsequent to MFA sonar use for any of the Navy's Phase III activities. That approach is inconsistent with the approach taken for both TAP I and Phase II activities. For the most recent Phase II final rule for HSTT, NMFS authorized up to 10 beaked whale mortality takes during the five-year period of the final rule⁵ (78 Fed. Reg. 78153). NMFS justified authorizing those mortalities by stating that, although NMFS does not expect injury or mortality of any beaked whales to occur as a result of active sonar training exercises, there remains the potential for the operation of MFA sonar to contribute to the mortality of beaked whales (78 Fed. Reg. 78149). That justification is still applicable.

In the preamble to the Phase II final rule, NMFS indicated that the Navy requested a limited number of takes by mortality based on the sensitivities beaked whales may have to anthropogenic activities (78 Fed. Reg. 78149). Those sensitivities have not diminished in the last five years. Rather, previously unrecognized sensitivities have been elucidated during that time. For example, Falcone et al. (2017)⁶ indicated that responses of Cuvier's beaked whales to MFA sonar within and near the Navy's Southern California Anti-submarine Warfare Range (SOAR) were more pronounced during mid-power (i.e., helicopter-dipping sonar, MF4) than high-power (i.e., hull-mounted sonar, MF1) sonar use. Thus, lower received levels from a less predictable source caused more marked responses than higher received levels from a predictable source traveling along a seemingly consistent course. Since multiple species of beaked whales are regularly observed on the Navy's ranges in both Hawaii and Southern California, including its instrumented ranges, those species have been a priority for the Navy's monitoring program⁷. The Navy has funded projects investigating beaked whales from TAP I through Phase III activities. Currently, two of the Navy's four funded projects in Southern California involve Cuvier's beaked whales and two of the three funded projects in Hawaii involve Blainville's beaked whales. Thus, it is apparent that research involving beaked whales continues to be a priority for the Navy and some of the whales' sensitivities to anthropogenic sound are just being discovered. Until such time that NMFS can better substantiate its conclusion that the Navy's activities do not have the potential to kill beaked whales, taking by mortality should be included in all related rulemakings.

NMFS has indicated that steep bathymetry, multiple hull-mounted platforms using sonar simultaneously, constricted channels, and strong surface ducts are not all present together in the HSTT study area and during the specified activities (83 Fed. Reg. 66882). NMFS specified that it did not authorize beaked whale mortalities in the Phase III final rule for HSTT based on the lack of

⁴ The Navy notes in its LOA application that four species of beaked whales and one beaked whale group (*Mesoplodon* spp. that includes six species) are present in the HSTT study area and three occur regularly in the study area. In addition to research funded by the Navy, sections 4.1.11 through 15 of the LOA application confirms the presence, and in some cases high numbers, of beaked whales in HSTT. See also the numerous technical reports at <https://www.navy-marinespeciesmonitoring.us/reporting/pacific/>.

⁵ NMFS authorized even more mortality takes under the TAP I final rules.

⁶ The Commission notes that this study was not mentioned by NMFS in the previous or current proposed rule or the final rule for Phase III activities nor was it mentioned by the Navy in either of its LOA applications.

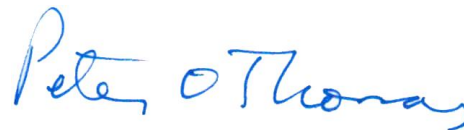
⁷ <https://www.navy-marinespeciesmonitoring.us/regions/pacific/current-projects/>

those factors and the lack of any previous strandings associated with Navy sonar use in HSTT⁸ (83 Fed. Reg. 66882). This does not comport with NMFS's acknowledgement in the Phase III proposed rule that all five of those factors are not necessary for a stranding to occur (83 Fed. Reg. 29930). Although NMFS does not expect injury or mortality of any of beaked whales to occur as a result of the Navy's active sonar training exercises, NMFS's justification for authorizing beaked whale mortalities under TAP I and Phase II final rules is still valid. That is, NMFS cannot ignore that there remains *the potential* for the operation of MFA sonar to contribute to the mortality of beaked whales. Given that the potential for beaked whale mortalities cannot be obviated, the Commission recommends that NMFS authorize at least 10 mortality takes of beaked whales subsequent to MFA sonar use in HSTT for the Phase III final rule, consistent with the HSTT Phase II final rule.

As an additional point, Southall et al. (2019) investigated Cuvier's beaked whale prey dynamics on SOAR. The researchers found that Cuvier's beaked whales, as well as their prey, were concentrated on the western side of SOAR. If beaked whales were to leave their preferred habitat on SOAR due to disturbance, Southall et al. (2019) stipulated that the animals could encounter both the energetic costs of moving and substantially poorer foraging options in the alternative areas⁹. Given the very large differences in prey quality measured between those areas, the researchers asserted that it may prove challenging for individual beaked whales to meet basic energetic requirements in some of those areas, which could have population-level consequences (Southall et al. 2019). It is unclear the timescale over which the prey surveys were conducted by Southall et al. (2019) and whether the prey dynamics were reflective of seasonal or year-round patterns. However, the Commission notes the researchers' contention that mitigation measures that would concentrate MFA sonar operations to the eastern rather than western side of SOAR would be beneficial for reducing the potential consequences of disturbance, particularly for those operations that use higher-intensity sonar. As such, NMFS should investigate whether the findings of Southall et al. (2019) are applicable to seasonal or year-round conditions at SOAR and whether implementation of mitigation areas on the western side of SOAR would be a prudent approach for meeting its negligible impact and least practicable adverse impact determinations under the MMPA.

Please contact me if you have questions concerning the Commission's recommendation or rationale.

Sincerely,



Peter O. Thomas, Ph.D.,
Executive Director

⁸ NMFS also stated that neither beaked whale mortalities nor habitat abandonment have been observed in Southern California and passive acoustic detections of beaked whales have not significantly changed during eight years of monitoring (DiMarzio et al. 2018). NMFS further stated that individual beaked whales have been sighted repeatedly in the area since 2006 (Schorr et al. 2018). Although those statements may be true, until all individuals in the beaked whale population have been identified, NMFS cannot be certain that no individuals have died, particularly in the offshore reaches of the Navy ranges where the whales reside and strandings or carcasses could easily be missed.

⁹ Both offshore of SOAR and on the eastern side of SOAR.

References

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- Southall, B.L., K.J. Benoit-Bird, M.A. Moline, and D. Moretti. 2019. Quantifying deep-sea predator-prey dynamics: Implications of biological heterogeneity for beaked whale conservation. *Journal of Applied Ecology* 00: 1–10. <https://doi.org/10.1111/1365-2664.13334>.