

March 11, 2013

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

Dear Mike,

I am writing to comment on the proposed rule regarding regulations and LOAs for the Navy's incidental harassment of marine mammals in the Hawai'i-Southern California Training and Testing Study Area, with emphasis on training in the Hawai'i Range Complex (HRC). In particular, I am writing to suggest: 1) that an exclusion zone for Navy testing and training activities be established along the west side of the island of Hawai'i, to protect biologically important areas recently identified for a number of species that are known or thought to be susceptible to impacts from Navy sonar; and 2) that calculations of estimated takes and determination of negligible impacts for recognized insular stocks of bottlenose dolphins in Hawai'i be undertaken on a stock-by-stock basis. I outline below the rationale to support each of these.

As noted in the proposed rule, based in part on studies supported by the Navy in recent years, there are a number of resident populations of odontocetes off the west side of the island of Hawai'i, and biologically important areas for these populations have been identified¹. These include species known or thought to be sensitive to impacts from Navy sonars²: Cuvier's beaked whales, Blainville's beaked whales, melon-headed whales, pygmy killer whales, short-finned pilot whales, and dwarf sperm whales³. Based on mark-recapture analyses, several of these populations are known to be quite small⁴. In addition, satellite tagging work with the main Hawaiian Islands insular false killer whales has identified the north end of Hawai'i Island as one of two large high density areas for this Endangered population⁵. The proposed rule notes that the Navy's exercise reports suggest this area has had a very low historical level of Navy activity, and as such concludes "that time-area restrictions would not afford much reduction of impacts at this location and are not necessary at this point". However, this conclusion presupposes that if Navy activities were undertaken in the area, on-board mitigation would be effective at avoiding impacts. Given the long dive-times and cryptic behavior of many of these species (e.g., beaked whales, dwarf sperm whales, pygmy killer whales) and the fact that Navy operations may occur at night or in rough conditions where the species are unlikely to be detected visually, even when they are at the surface, on-board mitigation involving visual observers is likely to be ineffective. More importantly, it is also likely those individuals and populations that are relatively naïve to

exposure are the ones that are most at risk⁶. Given the identification of this biologically important area for a number of known or potentially sensitive species, and the fact that naïve populations may be more at risk than those regularly exposed to Navy sonar, an exclusion zone should be created along the west side of the island of Hawai‘i for Navy sonar training and testing activities. Since this area is not normally used for Navy training activities, exclusion of it should not result in any impact on training realism or Navy readiness.

The proposed rule also ignores stock structure when estimating takes for some species in Hawaiian waters, and thus precludes comparison of estimated takes in relation to estimated population sizes and determination of whether estimated takes have a negligible impact on populations. In Table 18 of the proposed rule species-specific takes are noted for the Hawai‘i stock complex of bottlenose dolphins and the Hawai‘i stock complex of spinner dolphins. These “stock complexes” reflect five different stocks of bottlenose dolphins and six different stocks of spinner dolphins in Hawaiian waters⁷. While no abundance estimates for the different spinner dolphin stocks are reported in the most recent stock assessment reports, estimates of the abundance of distinctive individuals in the four insular stocks of bottlenose dolphins, and an estimate of the total abundance for the Hawai‘i Pelagic stock, are given in the most recent stock assessment report⁷. The proportion of distinctive individuals in the insular populations has been reported⁸ and thus estimates of abundance for each of the insular stocks could be easily calculated. Estimates of takes should be calculated and reported on a stock-specific basis in this case, to allow for an assessment of whether takes may have more than a negligible impact on any of the stocks.

Thank you for the opportunity to comment on this proposed rule.

Best regards,

A handwritten signature in black ink, appearing to read 'RW Baird', with a decorative flourish at the end.

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¹<http://cetsound.noaa.gov/pdf/ImportantAreasNarrativeHI.pdf>

²Brownell et al. 2009. Worldwide review of pygmy killer whales, *Feresa attenuata*, mass strandings reveals Taiwan hot spot. IWC Document SC/61/SM1; Cox et al. 2006. Understanding the impacts of anthropogenic sound on beaked whales. J. Cet. Res. Manage. 7:177-187; Hohn et al. 2006. Multispecies mass stranding of pilot whales (*Globicephala macrorhynchus*), minke whale (*Balaenoptera acutorostrata*), and dwarf sperm whales (*Kogia sima*) in North Carolina on 15-16 January 2005. NOAA Tech. Memo. NMFS-SEFSC-537; Southall et al. 2006. Hawaiian melon-headed whale (*Peponocephala electra*) mass stranding event of July 3-4, 2004. NOAA Tech. Memo. NMFS-OPR-31.

³Aschettino et al. 2011. Population structure of melon-headed whales (*Peponocephala electra*) in the Hawaiian Archipelago: evidence of multiple populations based on photo-identification. Mar.

Mamm. Sci. doi: 10.1111/j.1748-7692.2011.00517.x; Baird et al. 2011. Movements of two satellite-tagged pygmy killer whales (*Feresa attenuata*) off the island of Hawai‘i. Mar. Mamm. Sci. 27:E332-E337; Baird et al. 2013. Niche partitioning of beaked whales: comparing diving behavior and habitat use of Cuvier’s and Blainville’s beaked whales off the island of Hawaii. Pacific Scientific Review Group meeting document, April 2013. Mahaffy et al. 2009. Individual photo-identification of dwarf sperm whales off the island of Hawai‘i; evidence of site fidelity and a small population size. Poster presented at the 18th Biennial Conference on the Biology of Marine Mammals, Quebec, October 2009; Mahaffy, S.D. 2012. Site fidelity, associations and long-term bonds of short-finned pilot whales off the island of Hawai‘i. M.Sc. Thesis, Portland State University. McSweeney et al. 2009. Site fidelity and association patterns of a rare species: pygmy killer whales (*Feresa attenuata*) in the main Hawaiian Islands. Mar. Mamm. Sci. 25:557-572; Schorr et al. 2009. Movements of satellite-tagged Blainville's beaked whales off the island of Hawai‘i. End. Spec. Res. 10:203-213;
<http://cetsound.noaa.gov/pdf/ImportantAreasNarrativeHI.pdf>.

⁴Baird et al. 2009. Studies of beaked whales in Hawai‘i: population size, movements, trophic ecology, social organization and behaviour. ECS Special Publication 51:23-25, available from www.cascadiaresearch.org/hawaii/publications.htm; Aschettino, J.M. 2010. Population size and structure of melon-headed whales (*Peponocephala electra*) around the main Hawaiian Islands: evidence of multiple populations based on photographic data. M.Sc. Thesis, Hawai‘i Pacific University.

⁵Baird et al. 2012. Range and primary habitats of Hawaiian insular false killer whales: informing determination of critical habitat. End. Spec. Res. 18:47-61.

⁶Baird et al. 2011. Open-ocean movements of a satellite-tagged Blainville's beaked whale (*Mesoplodon densirostris*): evidence for an offshore population in Hawai‘i? Aq. Mamm. 37:506-511. and Falcone et al. 2009. Sighting characteristics and photo-identification of Cuvier’s beaked whales (*Ziphius cavirostris*) near San Clemente Island, California: a key area for beaked whales and the military? Mar. Biol. 156:2631-2640.

⁷<http://www.nmfs.noaa.gov/pr/pdfs/sars/po2011.pdf>

⁸Baird et al. 2009. Population structure of island-associated dolphins: evidence from photo-identification of common bottlenose dolphins (*Tursiops truncatus*) in the main Hawaiian Islands. Marine Mammal Science 25:251-274.