



July 10, 2012

Naval Facilities Engineering Command, Southwest
Attention: HSTT EIS/OEIS Project Manager – EV21.CS
1220 Pacific Highway, Building 1, Floor 3
San Diego, CA 92132-5190

Re: Sierra Club Comments on the Hawai'i-Southern California Testing and Training Draft Environmental Impact Statement/Overseas Environmental Impact Statement

INTRODUCTION

Thank you for the opportunity to comment on this very comprehensive document. We also appreciate the efforts of the Navy to engage the public in review of this document, including the hosting of public open house public meetings at various locations throughout the affected region.

We recognize and appreciate the contributions of our armed services personnel, including the U.S. Navy, in providing for the security of our homeland under increasingly complex conditions. That includes the difficult task of seeking to balance the duties of providing such security while also fulfilling their responsibilities as environmental stewards.

As citizens of the United States, we value our freedom and security. We also value our relationships with whales, dolphins, sea turtles, sea birds, and other creatures with which we share the Planet. They are more than just “natural resources.” Strong, adequate, measures are necessary to avoid or minimize risks the Navy’s training and testing activities pose to marine species and their habitats, as they also face increasing stresses in coming years from climate change impacts -- including rises in sea levels, and increases in sea temperatures and ocean acidification-- and from the cumulative impacts of increased uses of coastal waters for wind energy projects, oil and gas exploration, and other human activities.

GENERAL COMMENTS

We are quite concerned over the potential toll the planned Testing and Training activities described in this DEIS could exact on marine mammals, sea turtles, other species and their habitats.

Unfortunately, we do not consider the mitigation measures described in this DEIS to be sufficiently strong or adequate. In addition to our own study of this document, we have

reviewed and endorsed the comments on this DEIS submitted by the National Resources Defense Council (NRDC). We agree with their conclusion that this DEIS must be revised as necessary to comply with NEPA requirements, including development of alternatives that incorporate spatial and temporal mitigation measures.

The DEIS shows in considerable detail that either Alternative 1 and Alternative 2 (the Preferred Alternative) would constitute very large increases in the, scope, scale, and impacts of activities compared to the baseline levels of the No Action Alternative. In particular the DEIS projects large increases in “takes” under the provisions of the Marine Mammal Protection Act (MMPA) and the Endangered Species Act (ESA). Ultimately, the National Marine Fisheries Service will need to establish take limits through authorization letters in compliance with the MMPA and the ESA. As the DEIS notes, NMFS may require additional mitigation measures as conditions for issuing an MMPA (and, presumably, ESA) letter of authorization:

“In order to make the findings necessary to issue an MMPA Letter of Authorization, it may be necessary for NMFS to require additional mitigation measures or monitoring beyond those contained in this Draft EIS/OEIS. These could include measures considered, but eliminated in this EIS/OEIS, or as yet undeveloped measures. The public will have an opportunity to provide information to NMFS through the MMPA process, both during the comment period following NMFS’ notice of receipt of the application for a letter of authorization, and during the comment period following publication of the proposed rule. NMFS may propose additional mitigation measures or monitoring in the proposed rule.”
(ES-12)

While this quote suggests that NMFS might require more stringent measures than contained in this DEIS, we concur with NRDC that the DEIS itself should identify such measures as alternatives to be considered.

GENERAL RECOMMENDATIONS

We recommend the following:

- 1. Use coastal and marine spatial planning tools** to develop and implement **spatial and temporal mitigation measures** to avoid or reduce impacts from the activities described in this DEIS. The DEIS notes the requirement to comply with EO 13547, Stewardship of the Ocean, Our Coasts, and the Great Lakes (The National Ocean Policy), in which use of coastal and marine spatial planning is a key requirement.

Although there are many species potentially impacted by the training and testing activities, a relatively small number of species account for the majority of potential “exposures,” and implementing temporal or spatial measures based on seasonal population densities for key species should result in significant reductions in exposures. The Navy and NOAA have a broad array of tools, including a geographic information system data base showing the densities of marine mammal and sea turtle species found in specific areas by season,¹ which could be used to optimize the designation of protected areas.

¹ The Navy Marine Species Density Database referenced on page 3.5-54

For example, as shown in Appendix A, six species (Short-beaked common dolphin, Dall's porpoise, Dwarf sperm whale, Risso's dolphin, Bottlenose dolphin, Kogia species, and Long-beaked common dolphin) account for 88% of the predicted Temporary Threshold Shifts (TTS), on marine mammals from Annually Recurring Sonar and Other Active Acoustic Training Activities. Similar patterns are likely for Annually Recurring Testing Activities. Of course, the sizes of species populations must be considered in any evaluations of the effects of impacts on the populations. For small populations such as the Hawaiian monk seal, for example, the 441 TTS exposures per year under Training Alternatives 1 and 2 is a significant number relative to the population size. This is discussed in more detail below.

Other spatial mitigation measures should include avoidance of some or all portions of areas currently designated as critical habitat, National Marine Sanctuaries, or other categories of marine protected areas. We do note that the Navy currently does not operate within the boundaries of the Florida Keys National Marine Sanctuary. The Navy also has designated a humpback whale cautionary area within the Hawaiian Humpback Whale National Marine Sanctuary, which consists of a 5 km (3.1 miles) mitigation zone that has been identified as having one of the highest concentrations of humpback whales during the period between 15 December and 15 April. While not absolutely prohibiting activities during that time period, it does represent an application of temporal and spatial mitigation concepts.

The latter is a welcome step in the right direction, but in general the Navy has insisted on preserving its prerogative to operate within marine protected areas rather than delineate specific spatial areas to be avoided. The DEIS does include recognition of the importance of marine protected areas under its list of mitigation measures, as stated below:²

“Recognize the Importance of Marine Protected Areas

In general, most Armed Forces activities are exempt from the prohibitions marine protected areas [SIC] Nevertheless, the Navy would carry out its training and testing activities in a manner that will avoid, to the maximum extent practicable and consistent with training and testing requirements, adverse impacts to National Marine Sanctuary resources.”

“The Navy includes maps in the Protective Measures Assessment Protocol to define marine protected areas. To the greatest extent practicable, adverse impacts to these areas will be avoided.”

Under this category of mitigation the Navy still could carry out training and testing activities within marine protected areas, albeit while noting the need to avoid adverse impacts “to the greatest extent possible.”

2. **Abandon the SINKEX program of sinking obsolete ships in our waters.** The DEIS shows that eight vessels per year will be sunk under either Alternative 2 or Alternative 2³ We urge the Navy to reduce that number to zero. SINKEX is a wasteful and environmentally threatening practice of sinking ships that still contain remnant amounts of PCBs even after meeting what we consider to be inadequate cleanup standards required by the EPA. This

² Per Table 5.4-1: Mitigation Identification and Implementation

³ Per Table 2.8-1

DEIS rules out several potential mitigation measures because they would make a training practice “unrealistic.” The use of SINKEX involves sinking a large, unarmed, stationary vessel incapable of attempting evasive maneuvers or employing electronic countermeasures. This type of training exercise also fails to meet the requirement for realism, and should be eliminated on those grounds. SINKEX has provided a small percentage of trainees the experience of watching live weapons send very large ships to the bottom of the ocean. That experience passes with time, while the ship that was sunk permanently joins what has become the underwater equivalent of an elephant’s graveyard on our seabed. Surely this is not an acceptable environmental legacy for the Navy, and we urge that you abandon the use of SINKEX.

SPECIFIC COMMENTS AND RECOMMENDATIONS

1. Unacceptably High Training and Testing Impacts on Hawaiian Monk Seals

The DEIS data on Testing and Training Impacts shows unacceptably high projected impacts on the Endangered Hawaiian monk seal population, and illustrates deficiencies in the fragmented manner in which the DEIS presents impact data.

Appendix B contains copies of (1) Table 3.4-13: Annual Training Exposures for Sonar and Other Acoustic Sources AND (2) Table 3.4-14: Annual Testing Exposures for Sonar and Other Acoustic Sources. While it is necessary to know the impacts from each source of exposure, the most important metric is the total impacts on each species from all sources. In the case of the Hawaiian monk seal, it appears after review of multiple tables that the Training and Testing activities account for most of the impacts. Figures 1 - 3 below present an analysis of the separate and combined impacts of Training and Testing Activities on the Hawaiian monk seal population, based on information from the tables 3.4-13 and 3.4 -14.

Figure 1: Annual Training Exposures for Sonar and Other Acoustic Sources - Hawaiian monk seal									
	No Action Alternative			Alternative 1			Alternative 2		
	Behavioral	TTS	PTS	Behavioral	TTS	PTS	Behavioral	TTS	PTS
Exposures	251	46	-	846	441	-	846	441	-
Impacts as % of total population	23%	4%	0%	77%	40%	0%	77%	40%	0%

Figure 2: Annual Testing Exposures for Sonar and Other Acoustic Sources - Hawaiian monk seal									
	No Action Alternative			Alternative 1			Alternative 2		
	Behavioral	TTS	PTS	Behavioral	TTS	PTS	Behavioral	TTS	PTS
Exposures	31	29	0	153	82	0	188	100	0
Impacts as % of total population	3%	3%	0%	14%	7%	0%	17%	9%	0%

Figure 3: Annual Exposures for Sonar and Other Acoustic Sources, Combined Totals of Training and Testing - Hawaiian monk seal									
	No Action Alternative			Alternative 1			Alternative 2		
	Behavioral	TTS	PTS	Behavioral	TTS	PTS	Behavioral	TTS	PTS
Exposures	282	75	-	999	523	-	1,034	541	-
Percent change from No Action Alternative				337%	959%	N/A	367%	721%	N/A
Impacts as % of total population	26%	7%	0%	91%	48%	0%	94%	49%	0%

Table 1 – Analyses of Impacts of Training and Testing Activities on the Hawaiian monk seal

Note the following:

Figure 1 shows that Training impacts for Alternatives 1 and 2 are identical – 846 Behavioral impacts and 441 TTS (Temporary threshold shift) impacts. These do not appear to be particularly large impacts compared to those other species found in Table 3.4-13, especially since the Hawaiian species are intermingled with SOCAL species. The impacts appear more significant

when compared to other Hawaiian species, however, and become even more significant if one is aware that **the total population of Hawaiian monk seals was estimated in 2011 to be approximately 1,100 seals⁴.**

Using this population estimate, the 251 Behavioral exposures for the No Action Alternative would affect **23%** of the Hawaiian monk seal population if the exposures were evenly distributed among the population. It is more likely that some individuals would receive multiple exposures, but the ratio provides a guide as to the magnitude of the impact relative to the population size. **Without taking population sizes into account, the exposure data in the DEIS tables are incomplete and possibly misleading.**

Behavioral exposures for Alternatives 1 and 2 increase to 846, an alarming **77%** of the population, and that is not the complete picture. Behavioral impacts from Testing activities, shown in Figure 2, add another 153 exposures, or 14%. **The combined total Behavioral impacts of Training and Testing activities for Alternatives 1 and 2, shown in Figure 3, is 999,. This represents a shocking 94% of the population, and an increase in exposures of 349% compared to the No Action Alternative.**

Although the corresponding figures for TTS impacts are numerically lower than those for Behavioral, the impacts are presumably more severe. The combined total TTS impacts are 75, or 7%, for the No Action Alternative and 523, or **48% of the population for Alternatives 1 and 2.** **How is it possible that the Navy finds it acceptable to propose to expose the equivalent of half the population of Hawaiian monk seals to this level of harassment and potential injury? What other species with small populations will have high percentages of those populations impacted by the combination of Training, Testing, and other activities?** Although the DEIS includes population estimates, they are found in a different silo within the document.

Clearly these levels of impacts are unacceptably high, and measures have to be found to reduce them to acceptable levels. **We recommend a ban testing and training activities within the boundaries of the proposed Monk Seal Critical Habitat.**

2. Inadequacy of Visual Detection as a Mitigation Measure

Use of lookouts and other visual detection methods as mitigation measures may be necessary, but are not sufficient in the case of numerous species whose presence is difficult to detect visually.

For example, under either Alternative 1 or Alternative 2, the Hawaiian stock of Cuvier's beaked whale is projected to receive 52,110 Behavioral exposures out of a total of 112,752 for all Hawaiian stock species. This equates to 46%, almost half, of the total. The study area abundance for this species is 15,242⁵, so these impacts are very significant as a percentage of the total

⁴ http://www.pifsc.noaa.gov/hawaiian_monk_seal/population_at_a_glance.php

⁵ Table 3.4-1: Marine Mammals with Possible or Confirmed Presence within the Study Area

population. The Occurrence in the Study Area is described as “Year-round occurrence but difficult to detect due to diving behavior “⁶

The Dwarf sperm whale accounts for 20,569 out of a total of 30,292 TTS exposures -- 67% of the total. It accounts for 60 out of 63 PTS exposures – 95% of the total. . The study area abundance for this species is 17,519, so these impacts are also very significant as a percentage of the total population. It appears that the population, or at least a portion of the population, will be subject to multiple exposures at levels affecting their auditory functions. The Occurrence in the Study Area is described as “Stranding numbers suggest this species is more common than infrequent sightings during survey (Barlow 2006) indicated.” This suggests that even trained scientists seeking to assess population sizes have difficult spotting this species visually.

Cuvier’s beaked whale and the Dwarf sperm whale are both “cryptic” species difficult to spot “ because they are not very active at the surface and do not have a conspicuous blow).”⁷ **It is clear that the use of lookouts or other visual detection methods are not sufficient for the populations most affected by Training activities in the Hawaiian Area Complex.**

As disturbingly high as these exposures are, they are likely understated since they do not include exposures from Testing or other activities. We have not had sufficient time to perform the required calculations, which require compiling exposure data from two, and possibly more, separate tables scattered throughout the DEIS. Nor should reviewers such as us – or, ultimately, NMFS -- have to perform such additional steps in order to get useful information out of the huge amounts of fragmented data contained in this DEIS.

The revised, reissued, version of this DEIS must contain tables showing total impacts per species from all sources as well as ratios of exposures to total population sizes. Such tables would be necessary for determining what levels of take would be acceptable under the MMPA or ESA, and would direct decision makers to the areas requiring additional or more effective mitigation measures.

3. Concerns over impacts to Gray whale populations in SOCAL

The DEIS shows high estimated exposures for the Gray whale population, including considerable instances of PTT relative to the population size.

As stated in the DEIS, the “Population migrates through SOCAL, with the occurrence in SOCAL described as “Transient during seasonal migrations.”⁸

According to the DEIS, the Gray whale population is estimated at 18,813. Combined Training and Testing exposures under the **No Action Alternative** are estimated to be 1,077 Behavioral, 1,401 TTS, and 0 PTS. Those impacts relative to the population size are 6%, 7%, and 0% respectively.

⁶ Ibid

⁷ HSTT DEIS Volume 1 Page 3.4-39

⁸ Table 3.4-1: Marine Mammals with Possible or Confirmed Presence within the Study Area. Page 3.4-4

Combined Training and Testing exposures under **Alternative 1**, are 3,816 Behavioral, 7,358 TTS, and 25 PTS. Those impacts relative to the population size are 21%, 39%, and 0.1% respectively. The increases relative to the No Action Alternative are 359% for Behavioral and 525% for TTS.

Combined Training and Testing exposures under **Alternative 2**, are 3,911 Behavioral, 7,645 TTS, and 25 PTS. Those impacts relative to the population size are 21%, 41%, and 0.1% respectively. The increases relative to the No Action Alternative are 363% for Behavioral and 546% for TTS.

Clearly, use of a temporal closure for at least key portions of the SOCAL area appears warranted for reduction of impacts to the Gray whale population transiting the SOCAL.

4. Conclusions


Given the short time available for our organization to concurrently review the Atlantic Fleet Training and Testing DEIS as well as this DEIS, we have only been able to complete what amounts to a spot audit of some of the data in the DEIS. This is due in no small part to the fragmented structure of the DEIS and the lack of summary tables related to population sizes.

What we have found, however, is cause for alarm in the estimated impacts on high proportions of affected populations, and reliance on visual detection methods that would be ineffective for some of the populations most at risk.

We look forward to reviewing the revised version of this DEIS.

Thank you for the opportunity to comment on this important program.

Sincerely,



Chair
Sierra Club Marine Action Team

APPENDIX A

Predicted Impacts per Year from Annually Recurring Sonar and Other Active Acoustic Training Activities

Source: HTSS Volume 1 Table 3.4-13

Species	Stock	TTS- Temporary Threshold Shift	% of Total TTS
Short-beaked common dolphin	CA/OR/WA	274,697	67.4%
Dall's porpoise	CA/OR/WA	31,388	7.7%
Dwarf sperm whale	Hawaiian	20,569	5.0%
Risso's dolphin	CA/OR/WA	11,610	2.8%
Kogia spp.	CA/OR/WA	11,268	2.8%
Long-beaked common dolphin	CA/OR/WA	9,301	2.3%
Cumulative Total-these species		358,833	88.0%
All other species		49,025	12.0%
Totals - all species		407,858	100.0%