

# **Sea Shepherd Conservation Society**

**INTERNATIONAL HEADQUARTERS  
P.O. Box 2616  
Friday Harbor, WA 98250  
Tel: (360) 370-5500  
Fax:(360) 370-5501**



Donna Wieting, Chief  
Marine Mammal Conservation Division  
Office of Protected Resources  
National Marine Fisheries Service  
1315 East-West Highway  
Silver Spring, MD 20910-3226

Fax: 301-713-0376

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Dear Ms. Wieting,

The following comments are submitted by the Sea Shepherd Conservation Society regarding the proposed rule granting the U.S. Navy's request for a small take exemption under section 101(a)(5)(A) of the MMPA in the deployment of Surveillance Towed Array Sensor System Low Frequency Active Sonar.

The Navy should not be issue a small-take permit for deployment of LFA sonar, as it cannot say with any degree of reliability what the size of the take from use of LFAS is likely to be, nor determine a specified area in which a potential take would occur.

The Navy's data on potential take of sea turtles and fish by LFAS transmissions is virtually nonexistent. The data the Navy has amassed on potential effects of LFAS on cetaceans is severely deficient.

This is due primarily to the phenomenon of sound channels and surface ducts which have the potential to transmit high sound levels over long distances or down into deep ocean. The Navy has documented RL of 140 db at a distance of 300 nautical miles from a single LFAS source. The Navy cannot detect all the animals within the declared RL 180 db zone one kilometer from the sound source, and the Navy's plan to detect whales within the 1 km radius using binoculars and hydrophones is deficient as whales are only at the surface for brief time periods and often cease vocalizing as soon as they hear any noise, such as a ship's engines. High-frequency "fish finders" cannot guarantee any better than a 70-percent detection rate.

The Navy has attempted to dismiss the relevance of the stranding of beaked whales in Greece during NATO LFAS exercises in 1996. Faced with a research report's conclusion that there was a less than one percent probability that the cause of the stranding could have been anything other than LFAS, the Navy has attacked the methodology of the researcher who studied the incident and attempted to affirm that the timing of the LFAS transmissions and the unprecedented stranding event could have been a coincidence. The applicant is evidently unaware of the precautionary principle, sufficient grounds to deny the applicant a small take permit.

The Navy has further denied the relevance of the sonar-incriminating necropsy results from the stranding of beaked whales in the Bahamas in March 2000 during an LWAD sonar exercise on the grounds that LWAD deploys a mid-range, not a low-frequency, sonar. In this arbitrary focus on frequency range, the applicant further demonstrates the unacceptably narrow scope of its testing to determine levels of take. The Navy has given insufficient consideration to the phenomenon of resonance, produced at varying frequencies, causing tissue shear in whales' cranial air spaces. The insufficient consideration of resonance is sufficient cause to deny the applicant a permit on the grounds that it has not evaluated a likely cause of lethal take of marine mammals in the deployment of high-intensity active sonar systems.

Were the Navy to admit that the Greece and Bahamas strandings were likely to have been caused by high-intensity sonar and revise its requested take numbers upward accordingly, the resulting estimate of take would still be likely to be too low, as only a small number of cetaceans that are injured or die at sea strand or wash up on a shoreline. The majority of marine mammals that die as a result of LFAS deployment thus could not be known.

The Navy dismissed as insignificant the exodus of humpback whales from their accustomed breeding grounds in the LFAS test area off Hawaii, clustering on the opposite side of the island; the cessation of vocalizing among several species; and the observation of abandoned calves in the area during the Phase III test period. While the Service should note in this an obvious predisposition to find test results that would favor deployment, it is equally noteworthy that the Navy has defined "harm" as a phenomenon that can be determined by immediate observation. Though the observed take of humpback whales during Phase III should have been sufficient cause to abandon both the test and the LFAS program and begin serious evaluation of safe alternatives, the Navy also has given no consideration to the probability of long-term harm done to whales that do not leave the areas of LFAS deployment. This deficient definition of harm is sufficient cause to deny the Navy's application for a small take permit, as the applicant on this basis essentially cannot define what would constitute a take by deployment of LFAS.

The Navy has asserted that the LFAS testing program was not designed to evaluate "worst-case scenarios" and thereby justifies its extrapolation from harassment effects at RL 140 db to effects at RL 180 db. However, the Navy's definition of "employment" of the system does not include the actual use of the system for the purpose for which it was created. Outside of war games, at any time of declared "heightened threat conditions" the Navy will claim exemption from environmental laws for reasons of national security and all proposed mitigations will be abandoned, meaning LFAS is likely to be operated in near-shore areas, at full 230 db source levels, and whether or not cetaceans are sighted within 1 km of the deployment vessel. As the Navy intends to exempt itself from NEPA whenever it deems it necessary -- inevitably creating thereby the "worst-case scenario" for which

they admit they have not conducted tests -- all the more reason for the Navy to seriously pursue an alternative that has not already proven to generate high levels of harassment at low levels of deployment, as has LFAS. Passive submarine detection systems developed since the introduction of the 1980s-era technology on which LFAS is based include TB-29 towed array with Acoustic Rapid Insertion Sonar (ARCI) and the Advanced Deployable System (ADS)

We concur with the U.S. House of Representatives Committee on Resources in their expression of concern to the Secretary of Defense in October 2000 and its request that the Navy "postpone proceeding with the NMFS to obtain a Letter of Authorization for incidental take under the Marine Mammal Protection Act to operate LFA sonar worldwide until such time that NMFS can properly establish scientifically-based noise standards for marine animals."

We also concur with the Staff of the California Coastal Commission, which, in its Nov. 8, 2000, "no" vote recommendation on the determination of the consistency of the operation of LFAS with the policies of the California Coastal Management Program, noted that the Navy and NMFS are a long way from establishing such standards.