

# OCEAN CONSERVATION RESEARCH



*Science and technology serving the sea*

Dr. William Hogarth  
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**Delivered by:** Fax and US Mail

July 18, 2007

Re: Fed. Register V.72 #130, 50 CFR pt. 216  
ID # 062206A

Dear Dr. Hogarth,

We are deeply concerned about the renewed proposal to deploy the Surveillance Towed Array Sensor System – Low Frequency Active (SURTASS-LFA) throughout 80% of the world oceans. The National Marine Fisheries Service intention to issue global take permits for a program of this magnitude flies in the face of the precautions we need to take to preserve the marine habitat – particularly in light of the precarious state of the world oceans. Furthermore, this proposal is particularly egregious for its extremely short 15 day public comment period.

The US Navy was provided a five year opportunity to test the SURTASS-LFA system in a “limited” area of 1,000,000 square miles. While the permit did not include any but the most cursory “ship-based” observations of marine mammals directly in the vicinity of the operations, it is clear that a larger opportunity to gather important data on the biological impact of SURTASS-LFA on a range of marine animals has been lost. Many of the questions that were posed in the original public comments to the SURTASS-LFA system<sup>1</sup> – such as the concern for the impacts on highly migratory species (e.g. tuna, white sharks and sea turtles) and the impacts on other elasmobranchs remain unanswered.<sup>2</sup> If the impacts on these animals are still unknown after five years of system deployment, it would be reckless and capricious to permit deployment of this system until studies – independent from the Navy – are conducted in the legacy test area to determine if and what impacts the system has on these animals.

Since the original authorization of the SURTASS-LFA system we have learned many things about the ocean that would indicate a need for more precaution. We have learned

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<sup>1</sup> Department of the Navy “Final Overseas Environmental Impact Statement and Environmental Impact Statement for the SURTASS-LFA Sonar” 2001

<sup>2</sup> Ibid. V.2 p.E-93 Letter I-349 Comments were not answered, only referring to where the concern was addressed.

that 90% of the ocean pelagic predators have been depleted.<sup>3</sup> We have learned that White Sharks migrate thousands of miles,<sup>4</sup> quite possibly using geo-acoustic characteristics of the deep oceans to guide their migrations much in the manner of migrating birds.<sup>5</sup> If this is the case (and we do not yet know) it is possible that SURTASS-LFA noise pollution on a global scale would confound the sharks, either by the noise masking significant migration cues, by the noise damaging the shark's bioacoustic sensors, or by subjecting the sharks to ambiguous mobile cues in a soundscape where low frequency noises of equivalent magnitude to the SURTASS-LFA signals are extremely rare.

There is also a growing concern about the impacts that increasing anthropogenic noise has on various fish,<sup>6,7</sup> as well as a growing concern that low frequency anthropogenic noise has a negative impact communication of baleen whales<sup>8</sup> and that anthropogenic noise may be compromising their ability to migrate,<sup>9</sup> and communicate. We even know now that SURTASS-LFA sonar does impact the vocalizations and other behavior of humpback whales.<sup>10,11</sup>

Increasingly studies are revealing that anthropogenic noise is seriously compromising the ocean habitat. These few examples are readily available in the scientific and public literature. More studies are in progress. Unfortunately the limited comment period allowed for the current proposed ruling and permit process not only precludes a more thorough literature review, it also precludes inclusion of ongoing studies that clearly indicate that the operating frequency range of the SURTASS-LFA system directly interferes with important communication and navigation signals of many marine mammals and fish.

While we do not yet understand the consequences of the impact of this interference, it would be irresponsible to allow the global deployment of the SURTASS-LFA system until we have a better idea of how these impacts will effect ocean animals subject to this new noise, and what consequences these impacts will have on the viability of animal

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<sup>3</sup> Ransom A. Myers, Boris Worm "Rapid worldwide depletion of predatory fish communities" Nature 423, 280 - 283 (15 May 2003)

<sup>4</sup> Andre M. Boustany, Scott F. Davis, Peter Pyle, Scot D. Anderson, Burney J. Le Boeuf, Barbara A. Block "Satellite tagging: Expanded niche for white sharks" Nature 415, 35 - 36 (03 Jan 2002)

<sup>5</sup> Jonathan T. Hagstrum "Infrasound And The Avian Navigational Map" 2000. Journal of Experimental Biology.v.203. p1103-1111

<sup>6</sup> Arthur N. Popper, Andrew S. Kane and Michael S. Smith "Biological responses to acoustical stress in fishes" JASA- November 2002, Volume 112, Issue 5, p. 2432

<sup>7</sup> Michael E. Smith Lidia E. Wysocki and Arthur N. Popper "Effects of background sound on fish" JASA May 2006, Volume 119, Issue 5, pp. 3283-3284

<sup>8</sup> Shiva Polefka, "Anthropogenic Noise and the Channel Islands National Marine Sanctuary" September 28 2004. Environmental Defense Center

<sup>9</sup> "Secrets of whales' long-distance songs are being unveiled by U.S. Navy's undersea microphones -- but sound pollution threatens" Cornell News Feb. 2005. See also: Clark, C. W., and W. T. Ellison. "Potential use of low-frequency sounds by baleen whales for probing the environment: evidence from models and empirical measurements." 2004 In: Echolocation in Bats and Dolphins p.564 Univ. of Chicago Press. J. Thomas, C. Moss and M. Vater, eds.

<sup>10</sup> National Research Council *Ocean Noise and Marine Mammals*, National Academies Press, Washington DC. pp. 90-91 (2003)

<sup>11</sup> Kurt M. Fristrup, Leila T. Hatch and Christopher W. Clark "Variation in humpback whale (*Megaptera novaeangliae*) song length in relation to low-frequency sound broadcasts." June 2003. J. Acoust. Soc. Am. 113 (6).

populations –including populations of animals that we humans depend on for our own food supply.

Finally, the American Taxpayers – who are shelling out a considerable amount of money to sponsor this system – need to be apprised of the performance of the system in terms of the stated objective of locating hostile submarines at long distances. To my knowledge performance evaluations of the SURTASS-LFA system have not been made available to the public. We need to be assured that we are not having a less-than-optimum submarine surveillance system – and another military boondoggle – foisted upon us due to contractual obligations that were not well crafted in the first place.

Sincerely,

Michael Stocker  
Director

Cc: Michael Payne – NMFS  
Senator Barbara Boxer