

PREFACE

This Draft Supplemental Environmental Impact Statement (DSEIS) evaluates the potential environmental effects of employment of Surveillance Towed Array Sensor System (SURTASS) Low Frequency Active (LFA) sonar systems. The proposed action herein is the U.S. Navy employment of up to four SURTASS LFA sonar systems in the oceanic areas as presented in Figure 1-1 (SURTASS LFA Sonar Systems Potential Areas of Operations) of the Final Overseas Environmental Impact Statement/Environmental Impact Statement (FOEIS/EIS) for SURTASS LFA Sonar (DON, 2001). Based on current operational requirements, exercises using these sonar systems would occur in the Pacific, Atlantic, and Indian oceans, and the Mediterranean Sea. To reduce adverse effects on the marine environment, areas would be excluded as necessary to prevent 180-decibel (dB) sound pressure level (SPL) or greater within specific geographic range of land, in offshore biologically important areas during biologically important seasons, and in areas necessary to prevent greater than 145-dB SPL at known recreational and commercial dive sites.

The purpose of this DSEIS is to:

- Address deficiencies in National Environmental Policy Act (NEPA), Endangered Species Act (ESA), and Marine Mammal Protection Act (MMPA)¹ compliance found by the U.S. District Court for the Northern District of California in its 26 August 2003 Opinion and Order;
- Provide information necessary to apply for a new five-year Rule that would provide for incidental takes under the MMPA when the current rule expires in 2007, taking into account legislative changes to the MMPA and the need to employ two additional SURTASS LFA sonar systems;
- Analyze potential impacts for LFA system upgrades; and
- Provide additional information and analyses pertinent to the proposed action.

References to Underwater Sound Levels

1. References to underwater sound pressure level (SPL) in this SEIS are values given in decibels (dBs), and are assumed to be standardized at 1 microPascal at 1 m (dB re 1 μ Pa at 1 m [rms]) for Source Level (SL) and dB re 1 μ Pa [rms] for Received Level (RL), unless otherwise stated.
2. References to underwater Sound Exposure Level (SEL) in this SEIS are the measure of sound energy flow per unit area expressed in dB, and are assumed to be standardized at dB re 1 μ Pa²-s, unless otherwise stated.

¹ On 2 December 2004, the Court vacated and dismissed the MMPA claims based on the NDAA FY04 amendments to the MMPA.

In response to U.S. District Court ruling on the motion for preliminary injunction, the Deputy Assistant Secretary of the Navy for Environment (DASN(E)) decided that the purposes of NEPA would be served by supplemental analysis of employing SURTASS LFA sonar systems. On 11 April 2003, the DASN(E) directed the Navy to prepare a supplemental EIS to address concerns identified by the Court to provide additional information regarding the environment that could potentially be affected by the SURTASS LFA sonar systems and additional information related to mitigation (See APPENDIX A).

The FOEIS/EIS for SURTASS LFA sonar was completed in January 2001 by the Department of the Navy (DON) with the National Marine Fisheries Service (NMFS) as a cooperating agency in accordance with the requirements of NEPA² and Presidential Executive Order (EO) 12114 (Environmental Effects Abroad of Major Federal Actions)³ (DON, 2001). The DASN(E) signed the Record of Decision (ROD) on 16 July 2002 (*Federal Register* [FR] [67 FR 48145]), authorizing the operational employment of SURTASS LFA sonar systems contingent upon issuance by NMFS of letters of authorization (LOAs) under the Marine Mammal Protection Act (MMPA) and incidental take statements (ITSs) under ESA for each vessel.

In order to improve National Security readiness, the Department of Defense (DoD) asked Congress to clarify several provisions of environmental laws as they applied to military training and testing activities. This legislative clarification was provided by Congress as part of HR 1588, the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2004 (NDAA FY04), and was signed into law on 24 November 2003. The provisions of this act that specifically relate to SURTASS LFA sonar concern revisions to the MMPA, as summarized below:

- Overall – Changed the MMPA definition of “harassment,” adjusted the permitting system to better accommodate military readiness activities, and added a national defense exemption.
- Amended definition of “harassment” as it applies to military readiness activities and scientific activities conducted on behalf of the Federal government.
- Level A “harassment” defined as any act that injures or has the *significant* potential to injure a marine mammal.
- Level B “harassment” defined as any act that disturbs or is *likely to disturb* a marine mammal by causing disruption of natural behavioral patterns *to a point where the patterns are abandoned or significantly altered*. Behaviors include migration, surfacing, nursing, breeding, feeding, and sheltering.
- Secretary of Defense may invoke a national security exemption not to exceed two years for any action after conferring with the Secretary of Commerce and the Secretary of Interior, as appropriate.
- NMFS’s determination of “least practicable adverse impact on species or stock” must include consideration of personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

² The provisions of NEPA apply to major federal actions that occur or have effects in the United States, its territories, and possessions.

³ The provisions of EO 12114 apply to major federal actions that occur or have effects outside of U.S. territories (the United States, its territories, and possessions).

- Eliminated the “small numbers” and “specified geographic region” requirements from the incidental take permitting process for military readiness activities.

This DSEIS focuses on:

- DASN(E) direction to:
 - Provide additional information regarding the environment that could potentially be affected by employment of SURTASS LFA;
 - Provide additional information related to mitigation of the potential impacts of the system;
- Addressing pertinent deficiencies raised by the Court including:
 - Additional mitigation and monitoring;
 - Additional area alternatives analysis;
 - Analysis of the potential impacts of LF sound on fish;
- Providing the information necessary to apply for a new five-year rule that would provide for incidental takes under the MMPA, taking into account the NDAA FY04 amendments to the MMPA for military readiness.

Additional DSEIS analyses include:

- Updating literature reviews and determination of data gaps, especially for fish, sea turtles, and marine mammals;
- Marine animal LF sound thresholds/impacts based on Fish Controlled Exposure Experiments (CEE) and updated literature reviews;
- LF sound impact analysis to include:
 - Geographic areas;
 - Marine mammal impacts under NDAA FY04 definition of “harassment;”
 - Fish impacts;
 - Other listed species’ impacts, as required; and
- Mitigation (need for mitigation will be determined by impact analysis based on new legislation).

The information in the SURTASS LFA sonar FOEIS/EIS remains valid, except as noted or modified in the DSEIS. The contents of the FOEIS/EIS are incorporated into the DSEIS by reference, except as noted or modified.

Table P-1 provides a comparison of the FOEIS/EIS with the DSEIS.

Table P-1. SURTASS LFA Sonar FOEIS/OEIS and DSEIS comparison.

FOEIS/EIS		DSEIS		Comparison
Chapter	Section	Chapter	Section	
1		1		<ul style="list-style-type: none"> ▪ Updated Purpose and Need statement. ▪ Updated background and chronology of key events. ▪ Updated environmental impact analysis process description. ▪ Updated analytical context.
2		2		<ul style="list-style-type: none"> ▪ Updated general SURTASS LFA system description to include compact LFA (CLFA). ▪ Updated operating profile and potential OPAREAs. ▪ Review of NMFS interim operational restrictions and modifications to mitigation. ▪ Additional alternatives to include greater coastal standoff distance and additional offshore biologically important areas.
3	3.1	3	3.1	▪ No changes—FOEIS/EIS incorporated by reference.
	3.2.1		3.2.1	▪ Species Screening—No substantial changes except for fishes.
	3.2.2		3.2.2	▪ Fish—Updated literature review.
	3.2.3		3.2.3	▪ Sea Turtles—Updated literature review.
	3.2.4		3.2.4.1	▪ Mysticete Species—Updated literature review.
	3.2.5		3.2.4.2	▪ Odontocete Species—Updated literature review.
	3.2.6		3.2.5	▪ Pinnipeds—Updated literature review.
	3.3.1		3.3.1	▪ Commercial and Recreational Fisheries—Updated literature review.
	3.3.1.4		3.3.1.3	▪ Marine Mammals—Expanded section to include subsistence whaling, scientific research, IWC whale sanctuaries, and marine mammal bycatch.
	3.3.2		3.3.2	▪ Other Recreational Activities—Updated literature review.
	3.3.3		3.3.3	▪ Research and Exploration Activities—Updated literature review.
	3.3.4		3.3.4	▪ Coastal Zone Management—No changes— FOEIS/EIS incorporated by reference.
4	4.1		4.1	▪ Potential Impacts on Fish and Shark Stocks—Analysis updated.
	4.1.2		4.2	▪ Potential Impacts on Sea Turtles—Analysis updated.
	4.2		4.3	<ul style="list-style-type: none"> ▪ Potential Impacts to Marine Mammals—Changes including non-auditory injury, hearing threshold, and biologically significant behavior. ▪ Analysis of SURTASS LFA Operations under Current MMPA Rule—Risk assessment approach and case study. ▪ Evaluation of the Use of Small Boats and Aircraft for Pre-operational Surveys—New. ▪ Marine Mammal Strandings—New. ▪ Multiple System Analysis—No substantial change, FOEIS/EIS Subchapter 4.2.7.4 incorporated by reference.
	4.3		4.8	▪ Socioeconomic—Analysis updated.

FOEIS/EIS		DSEIS		Comparison
Chapter	Section	Chapter	Section	
	4.4		4.9	▪ Cumulative Effects—Analysis updated.
	4.4.1 4.4.2		4.9.1	▪ Cumulative Impacts from Anthropogenic Noise—New data on recent changes in oceanic noise levels, commercial shipping, vessel noise sources, oil and gas industry, and military and commercial sonar.
	4.4.3		4.9.1.6	▪ Comparison of SURTASS LFA with Other Human-Generated Sources of Oceanic Noise—Analysis updated.
			4.9.2	▪ Cumulative Impacts due to Injury and Lethal Takes—New.
	4.4.4		4.9.3	▪ Summary of Cumulative Impacts—Conclusion updated.
			4.10	▪ Evaluation of Alternatives—New .
5		5		▪ Mitigation Measures—Changes include possible increased number of offshore biologically import areas, and possible increase in coastal standoff.
6		6		▪ Federal, State, Local Plans, Policies, and Controls—Updated.
7		7		▪ No change/Incorporated by reference.
8		8		▪ No change/Incorporated by reference.
9		9		▪ No change/Incorporated by reference.
10		10		▪ Public Review Process—No process change from FOEIS/EIS, DSEIS Public Hearing information provided.
11		11		▪ Distribution—Updated.
12				▪ Glossary—No changes/Incorporated by reference.
13		12		▪ Literature Cited—Updated.
14		13		▪ List of Preparers and Reviewers—Updated.

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