

Prepared for and submitted to:

National Marine Fisheries Service
Office of Protected Resources

Prepared by:

Department of the Navy

In accordance with the Letters of Authorization
Under the MMPA and ITS authorization under
the ESA

26 December 2013

Annual Testing Report With 5-Year Close-Out Report

26 December 2017 to 25 December 2018 Year 5

For The U.S. Navy's Hawaii-Southern California Training and Testing (HSTT) Study Area

25 March 2019

TABLE OF CONTENTS

ANNUAL HSTT TESTING REPORT

| | |
|--|---|
| INTRODUCTION..... | 3 |
| (1) HSTT – Summary of Testing Sources Used..... | 4 |
| (2) HSTT – Geographic Testing Information Representation | 6 |
| (3) HSTT – Special Reporting Requirements | 6 |

HAWAII-SOUTHERN CALIFORNIA TRAINING AND TESTING (HSTT) ANNUAL TESTING REPORT AND 5-YEAR CLOSE-OUT REPORT

INTRODUCTION

The Naval Sea Systems Command prepared this Annual Testing Report and Close-Out Report covering the period from 26 December 2017 to 25 December 2018 and 26 December 2013 to 25 December 2018 in compliance with the National Marine Fisheries Service (NMFS) Final Rule, Letter of Authorization (LOA), and Incidental Take Statements under the Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA) authorizations for the United States Navy's Hawaii-Southern California Training and Testing (HSTT) Study Area.

In the HSTT Final Rule and Letters of Authorization¹ "Requirements for monitoring and reporting" the following report subsections were specified and are present within this report:

- (1) Summary of Testing Sources Used
- (2) Geographic Testing Information Representation
- (3) Special Reporting Requirements for Testing
 - (i) Total hours of hull mounted active sonar operations conducted in the dense humpback areas generally shown on the Mobley map plus a 5-km buffer but not including the Pacific Missile Range Facility (from 15 December through 15 April)
 - (ii) Total hours of hull mounted active sonar operations conducted in the Humpback Whale Cautionary Area (from 15 December through 15 April)

This Annual Report covers the period from 26 December 2017 to 25 December 2018 and 26 December 2013 to 25 Decemebr 2018 for the close-out report. The information represents the best practical data collection for this period.

¹HSTT: 7(d) of the Testing Letter of Authorization, and 50 CFR §218.75(f) (2), (4), and (5)

(1) HSTT – Summary of Testing Sound Sources**(1) (i) Total annual and 5-year cumulative usage of each type of sound source**

This section summarizes total annual and cumulative 5-year usage of each type of sound source used for testing within the HSTT study area from 26 December 2017 to 25 December 2018 and 26 December 2013 to 25 December 2018, respectively.

Table 1-1. Testing sound source usage within the HSTT Study Area by source bin

| Authorized sound sources 50 CFR §218.70 (c) and NMFS HSTT Testing LOA | | Authorized Amount (26Dec17- 25Dec18) | Actual Usage (26Dec17- 25Dec18) | % Used of Authorized Amount |
|--|--|--|---------------------------------------|-----------------------------------|
| (1) Active Acoustic Sources Used | | | | |
| LF4 | Low frequency sources from 180 dB up to 200 dB | 52 hours | * | * |
| LF5 | Low frequency sources from 160 dB up to 180 dB | 2,160 hours | * | * |
| LF6 | Low-frequency sonars currently in development (e.g., anti-submarine warfare sonars associated with the Littoral Combat Ship) | 192 hours | * | * |
| MF1 | Hull-mounted sonars (e.g. SQS-53) | 180 hours | * | * |
| MF1K | Hull-mounted sonar Kingfisher mode | 18 hours | * | * |
| MF2 | Hull-mounted sonars (e.g. SQS-56) | 84 hours | * | * |
| MF3 | Hull-mounted sonar (e.g. BQQ-10) | 392 hours | * | * |
| MF4 | Helicopter dipping sonar (e.g. AQS-13/22) | 693 hours | * | * |
| MF5 | Acoustic sonobuoys (e.g. SSQ-62) | 5,024 sonobuoys | * | * |
| MF6 | Underwater sound signaling devices (e.g. MK 84 SUS) | 540 items | * | * |
| MF8 | Other active sources greater than 200dB | 2 hours | * | * |
| MF9 | Other active sources from 180 dB up to 200 dB | 3,039 hours | * | * |
| MF10 | Other active sources from 160 dB up to 180 dB | 35 hours | * | * |
| MF12 | High duty cycle towed array sonars (e.g. HDC-VDS) | 336 hours | * | * |
| HF1 | Hull-mounted submarine sonar (e.g. BQQ-10) | 1,025 hours | * | * |
| HF3 | Other hull-mounted submarine sonars | 273 hours | * | * |
| HF4 | Mine detection/classification sonars | 1,336 hours | * | * |
| HF5 | Other active sources greater than 200dB | 1,094 hours | * | * |
| HF6 | Other active sources from 180 dB up to 200 dB | 3,460 hours | * | * |
| ASW1 | Mid-frequency Deep Water Active Distributed System (DWADS) | 224 hours | * | * |
| ASW2 | Mid-frequency Multi-static Active Coherent sonobuoy (e.g. SSQ-125) | 2,260 sonobuoys | * | * |
| ASW2 | Mid-frequency Multi-static Active Coherent sonobuoy (e.g. SSQ-125) | 255 hours | * | * |
| ASW3 | Mid-frequency towed acoustic countermeasure (e.g. SLQ-25) | 1,278 hours | * | * |
| ASW4 | Mid-frequency expendable acoustic device countermeasure (e.g. MK 3) | 477 devices | * | * |
| TORP1 | Lightweight torpedo (e.g. MK 46/MK 54) | 701 torpedoes | * | * |
| TORP2 | Heavyweight torpedo (e.g. MK48) | 732 torpedoes | * | * |

UNCLASSIFIED

| | | | | |
|----------------------------|---|--------------------|---|---|
| M3 | Mid-frequency acoustic modems | 4,995 hours | * | * |
| SD1 | Swimmer detection sonars | 38 hours | * | * |
| AG | Underwater airguns | 5 uses | * | * |
| SAS1 | Mid-frequency SAS systems | 2,700 hours | * | * |
| SAS2 | High-frequency SAS systems | 4,956 hours | * | * |
| SAS3 | Very high-frequency SAS systems | 3,360 hours | * | * |
| (2) Explosive Sources Used | | | | |
| E1 | Medium-caliber projectiles (0.2 – 0.25 lb.) | 14,501 detonations | * | * |
| E3 | Large-caliber projectiles | 2,990 detonations | * | * |
| E4 | Improved Extended Echo Ranging sonobuoy | 753 detonations | * | * |
| E5 | 5-in projectiles | 202 detonations | * | * |
| E6 | 15 lb. shaped charge | 37 detonations | * | * |
| E7 | 40 lb. demo block/shaped charge | 21 detonations | * | * |
| E8 | 250 lb. bomb | 12 detonations | * | * |
| E10 | 1,000 lb. bomb | 31 detonations | * | * |
| E11 | 650 lb. mine | 14 detonations | * | * |

*Information is presented in the classified version of this report.

Table 1-2. 5-year cumulative testing sound source usage within the HSTT Study Area by source bin

| Sound Source Bin | Year 1 Actual Usage (26Dec13 - 25Dec14) | Year 2 Actual Usage (26Dec14 - 25Dec15) | Year 3 Actual Usage (26Dec15 - 25Dec16) | Year 4 Actual Usage (26Dec16 - 25Dec17) | Year 5 Actual Usage (26Dec17 - 25Dec18) | 5-yr Authorized Amount (26Dec13- 25Dec18) | 5-yr Cumulative Actual Usage (26Dec13- 25Dec18) | % Used of 5-yr Authorized Amount |
|----------------------------------|---|---|---|---|---|---|---|----------------------------------|
| (1) Active Acoustic Sources Used | | | | | | | | |
| LF4 | * | * | * | * | * | 260 hours | * | * |
| LF5 | * | * | * | * | * | 10,800 hours | * | * |
| LF6 | * | * | * | * | * | 960 hours | * | * |
| MF1 | * | * | * | * | * | 900 hours | * | * |
| MF1K | * | * | * | * | * | 90 hours | * | * |
| MF2 | * | * | * | * | * | 420 hours | * | * |
| MF3 | * | * | * | * | * | 1,960 hours | * | * |
| MF4 | * | * | * | * | * | 3,465 hours | * | * |
| MF5 | * | * | * | * | * | 25,120 sonobuoys | * | * |
| MF6 | * | * | * | * | * | 2,700 items | * | * |
| MF8 | * | * | * | * | * | 10 hours | * | * |
| MF9 | * | * | * | * | * | 15,195 hours | * | * |
| MF10 | * | * | * | * | * | 175 hours | * | * |
| MF12 | * | * | * | * | * | 1,680 hours | * | * |
| HF1 | * | * | * | * | * | 5,125 hours | * | * |
| HF3 | * | * | * | * | * | 1,365 hours | * | * |
| HF4 | * | * | * | * | * | 6,680 hours | * | * |
| HF5 | * | * | * | * | * | 5,470 hours | * | * |
| HF6 | * | * | * | * | * | 17,300 hours | * | * |
| ASW1 | * | * | * | * | * | 1,120 hours | * | * |
| ASW2 | * | * | * | * | * | 11,300 items | * | * |
| ASW2 | * | * | * | * | * | 1,275 hours | * | * |
| ASW3 | * | * | * | * | * | 6,390 hours | * | * |
| ASW4 | * | * | * | * | * | 2,385 items | * | * |
| TORP1 | * | * | * | * | * | 3,505 items | * | * |
| TORP2 | * | * | * | * | * | 3,660 items | * | * |

| | | | | | | | | |
|-----------------------------------|---|---|---|---|---|--------------------|---|---|
| M3 | * | * | * | * | * | 24,975 hours | * | * |
| SD1 | * | * | * | * | * | 190 hours | * | * |
| AG | * | * | * | * | * | 25 uses | * | * |
| SAS1 | * | * | * | * | * | 13,500 hours | * | * |
| SAS2 | * | * | * | * | * | 24,780 hours | * | * |
| SAS3 | * | * | * | * | * | 16,800 hours | * | * |
| (2) Explosive Sources Used | | | | | | | | |
| E1 | * | * | * | * | * | 72,505 detonations | * | * |
| E3 | * | * | * | * | * | 14,950 detonations | * | * |
| E4 | * | * | * | * | * | 3,765 detonations | * | * |
| E5 | * | * | * | * | * | 1,010 detonations | * | * |
| E6 | * | * | * | * | * | 185 detonations | * | * |
| E7 | * | * | * | * | * | 105 detonations | * | * |
| E8 | * | * | * | * | * | 60 detonations | * | * |
| E10 | * | * | * | * | * | 155 detonations | * | * |
| E11 | * | * | * | * | * | 70 detonations | * | * |

*Information is presented in the classified version of this report.

Total annual airgun use summary

Information is presented in the classified version of this report.

Improved Extended Echo-Ranging System (IEER) sonobuoy summary

Information is presented in the classified version of this report.

(2) HSTT – Geographic Testing Information Representation

The precise locations and frequency of testing is classified. There is currently no method to declassify the sensitivity of this data in order to publish this type of information in an unclassified report. For this reason, the only available method for this information to be disseminated for the foreseeable future is in the classified version of this Annual Testing Report.

(3) HSTT – Special Reporting Requirements

(3) (i) Total hours of hull-mounted sonar use in dense humpback areas (15 December – 15April)

The precise locations and frequency of testing is classified. There is currently no method to declassify the sensitivity of this data in order to publish this type of information in an unclassified report. For this reason, the only available method for this information to be disseminated for the foreseeable future is in the classified version of this Annual Testing Report.

(3) (ii) Total estimated annual hours of hull-mounted active sonar operation in Humpback Whale Cautionary Area (15 December – 15April)

The precise locations and frequency of testing is classified. There is currently no method to declassify the sensitivity of this data in order to publish this type of information in an unclassified report. For this reason, the only available method for this information to be disseminated for the foreseeable future is in the classified version of this Annual Testing Report.