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

26 December 2013

Annual Hawaii-Southern California Training and Testing (HSTT) Testing Report

26 December 2015 to 25 December 2016

25 March 2017

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HAWAII-SOUTHERN CALIFORNIA TRAINING AND TESTING (HSTT) ANNUAL TESTING REPORT

INTRODUCTION

The Naval Sea Systems Command prepared this Annual Testing Report covering the period from 26 December 2015 to 25 December 2016 in compliance with the National Marine Fisheries Service (NMFS) Final Rule, Letters of Authorization (LOA), and Incidental Take Statements under the Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA) authorizations for the U.S. 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
 - (i) Total annual and 5-year cumulative total usage of each type of sound source
- (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 2015 to 25 December 2016, and the information represents the best practical data collection for this period. To provide accounting for the entire 5-year period of the authorization, Navy will also submit a 5-year Close-out Testing Report with final totals of authorized usage.

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 2015 to 25 December 2016.

Table 1-i-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 (26Dec15- 25Dec16)	Actual Usage (26Dec15- 25Dec16)	% 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	*	*
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-i-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)	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.