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Under the MMPA and ITS authorization under  
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**UNCLASSIFIED**

**2019 Annual Training Exercise Report  
Year 1**

**21 December 2018 to 20 December 2019**

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

**20 March 2020**

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# HAWAII-SOUTHERN CALIFORNIA TRAINING AND TESTING STUDY AREA TRAINING EXERCISE REPORT

## INTRODUCTION

The U.S. Navy prepared this unclassified Annual Training Exercise Report covering the period from 21 December 2018 to 20 December 2019 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. A classified version of this report is also submitted to NMFS.

In the HSTT Final Rule and Letters of Authorization,<sup>1</sup> the following report subsections were specified. However, only unclassified information is present within this report:

- (1) Major Training Exercises (MTEs)
  - (i) Exercise information (for each MTE)
  - (ii) Individual marine mammal sighting information for each sighting in each exercise when mitigation occurred
  - (iii) Evaluation (based on data gathered during all MTEs) of the effectiveness of mitigation measures designed to minimize the received level to which marine mammals may be exposed
- (2) Sinking Exercises (SINKEXs)
  - (i) Exercise information (gathered for each SINKEX)
  - (ii) Individual marine mammal observation (by Navy Lookouts) information (gathered for each marine mammal sighting) for each sighting where mitigation was implemented
- (3) Summary of Sources Used
  - (i) Total annual hours or quantity (per the LOA) of each bin of sonar or other acoustic sources (pile driving and air gun activities)
  - (ii) Total annual expended/detonated ordnance (missiles, bombs, sonobuoys, etc.) for each explosive bin
- (4) Humpback Whale Special Reporting Area (December 15 – April 15)
- (5) HSTT Study Area Mitigation Areas
- (6) Geographic Information Presentation
- (7) Sonar Exercise Notification

The information in this report represents the best practical data collection for this period.

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<sup>1</sup>HSTT Requirements for Monitoring and Reporting, 50 CFR 218.75(e)(1) through (e)(7). The reporting requirements are also delineated in section 7(e) of the Training Letter of Authorization.

### (1) HSTT – Major Training Exercises

This section summarizes authorized sonar use and marine mammal observations from MTEs conducted within the HSTT Study Area during the reporting period. The HSTT MTEs include Large Integrated Anti-Submarine Warfare, which consists of *Composite Training Unit Exercises* (C2X) and *Rim of the Pacific Exercise* (RIMPAC), and Medium Integrated Anti-Submarine Warfare, which consists of *Fleet Exercises* (FLEETEX), *Sustainment Exercises* (SUSTEX), and *Undersea Warfare Exercises* (USWEX).

#### (i) Exercise information

**Table 1-1. MTEs conducted in the HSTT Study Area**

(A) Exercise designator	(B) Date began and ended	(C) Location	(D) Number and types of active sonar sources used					(E) Number and types of passive acoustic sources used				(F) Number and types of vessels, aircraft, and other platforms participating					
			Surface hull-mounted sonar	Submarine hull-mounted sonar	Helicopter dipping sonar	Aircraft sonobuoy	Towed countermeasure	Surface hull-mounted sonar	Submarine hull-mounted sonar	Aircraft sonobuoy	Towed array	CG	DDG	MH-60R dipping helo	MPRA	Submarines	Non-ASW surface ship
USWEX <sup>1</sup>	2 Apr – 12 Apr 2019	SOCAL/HRC	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
USWEX <sup>1</sup>	5 Nov – 13 Nov 2019	SOCAL/HRC	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
C2X	19 Nov – 13 Dec 2019	SOCAL	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

**Table 1-1 (continued). MTEs conducted in the HSTT Study Area**

(A) Exercise designator	(B) Date began and ended	(C) Location	(G) Total hours of all active sonar source operation	(H) Total hours of each active source bin																				(U) Wave height (high, low, average)				
				LF6 (hours)	MF1 (hours)	MF1K (hours)	MF3 (hours)	MF4 (hours)	MF5 (count)	MF6 (count)	MF11 (hours)	MF12 (hours)	HF1 (hours)	HF3 (hours)	HF4 (hours)	HF8 (hours)	ASW1 (hours)	ASW2 (count)	ASW3 (hours)	ASW4 (count)	ASW5 (hours)	TORP1 (count)	TORP2 (count)		FLS2 (hours)	M3 (hours)	SAS2 (hours)	SAS4 (hours)
USWEX	2 Apr – 12 Apr 2019	SOCAL/HRC	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7,1,4
USWEX	5 Nov – 13 Nov 2019	SOCAL/HRC	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	6,1,3
C2X	19 Nov – 13 Dec 2019	SOCAL	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	6,1,3

<sup>1</sup>Fleet Battle Problem conducted as an USWEX-equivalent exercise

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

**(ii) Individual marine mammal sighting information for each sighting in each exercise when mitigation occurred**

**Table 1-2. HSTT MTE – Individual Marine Mammal and Sea Turtle Mitigation Sighting Information: USWEX 2 Apr – 12 Apr 2019**

(A) Date/time/location of sighting	(B) Species	(C) Number of individuals	(D) Initial detection sensor	(E) Indication of specific type of platform observation was made from	(F) Length of time observers maintained visual contact with marine mammal (min)	(G) Sea state (Beaufort scale)	(H) Visibility (nm)	(I) Sound source in use at time of sighting (Y/N)	(J) Indication of whether animal was <200 yd, 200-500 yd, 500-1000 yd, 1000-2000 yd, or >2000 yd from sonar source	(K) Whether operation of sonar sensor was delayed, or sonar was powered or shut down, and how long the delay	(L) If source in use was hull-mounted, true bearing of animal from the vessel, true direction of vessel's travel, and estimation of animal's motion relative to vessel	(M) Lookouts must report, in plain language and without trying to categorize in any way, the observed behavior of the animal(s) and if any calves were present
No marine mammal mitigations reported during this exercise.												

**Table 1-3. HSTT MTE – Individual Marine Mammal and Sea Turtle Mitigation Sighting Information: USWEX 5 Nov – 13 Nov 2019**

(A) Date/time/location of sighting	(B) Species	(C) Number of individuals	(D) Initial detection sensor	(E) Indication of specific type of platform observation was made from	(F) Length of time observers maintained visual contact with marine mammal (min)	(G) Sea state (Beaufort scale)	(H) Visibility (nm)	(I) Sound source in use at time of sighting (Y/N)	(J) Indication of whether animal was <200 yd, 200-500 yd, 500-1000 yd, 1000-2000 yd, or >2000 yd from sonar source	(K) Whether operation of sonar sensor was delayed, or sonar was powered or shut down, and how long the delay	(L) If source in use was hull-mounted, true bearing of animal from the vessel, true direction of vessel's travel, and estimation of animal's motion relative to vessel	(M) Lookouts must report, in plain language and without trying to categorize in any way, the observed behavior of the animal(s) and if any calves were present
No marine mammal mitigations reported during this exercise.												

**Table 1-4. HSTT MTE – Individual Marine Mammal and Sea Turtle Mitigation Sighting Information: USWEX 19 Nov – 13 Dec 2019**

(A) Date/time/location of sighting			(B) Species	(C) Number of individuals	(D) Initial detection sensor	(E) Indication of specific type of platform observation was made from	(F) Length of time observers maintained visual contact with marine mammal (min)	(G) Sea state (Beaufort scale)	(H) Visibility (nm)	(I) Sound source in use at time of sighting (Y/N)	(J) Indication of whether animal was <200 yd, 200-500 yd, 500-1000 yd, 1000-2000 yd, or >2000 yd from sonar source	(K) Whether operation of sonar sensor was delayed, or sonar was powered or shut down, and how long the delay	(L) If source in use was hull-mounted, true bearing of animal from the vessel, true direction of vessel's travel, and estimation of animal's motion relative to vessel	(M) Lookouts must report, in plain language and without trying to categorize in any way, the observed behavior of the animal(s) and if any calves were present
21 Nov 19	1850Z	SOCAL	Whale	1	Visual	DDG	5	1	10	Y	200-500	Shut down sonar	Whale bearing 000T, vessel course 246T, opening vessel	Swimming
21 Nov 19	1911Z	SOCAL	Dolphin	1	Visual	DDG	nr	1	10	Y	nr	Powered down sonar (4 minutes)	nr	nr
21 Nov 19	2005Z	SOCAL	Whale	1	Visual	DDG	5	1	10	Y	200-500	Shut down sonar	Whale bearing 270T, vessel course 190T, opening vessel	Swimming
23 Nov 19	1555Z	SOCAL	Whale	1	Visual	DDG	2	1	10	Y	500-1000	Shut down sonar	Whale bearing 074T, vessel course 093T, paralleling vessel	Blowing
23 Nov 19	1614Z	SOCAL	Whale	1	Visual	DDG	4	1	10	Y	1000-2000	Shut down sonar	Whale bearing 270T, vessel course 151T, paralleling vessel	Blowing

nr=not reported

**(iii) Evaluation (based on data gathered during all exercises) of effectiveness**

There were three major training exercises conducted in the HSTT Study Area this reporting period (see **Table 1-5**). In support of these MTEs, the Navy conducted over 893 hours of Marine Species Awareness Training for at least 588 personnel prior to the beginning of these training exercises.

**Table 1-5. HSTT Study Area Major Training Exercises.**

MTE Type	Dates	# of Exercise Days	# of US Ships Involved (MFAS and non-MFAS)	# of Marine Mammal Mitigations	# of Marine Mammals
USWEX	2 Apr – 12 Apr 2019	11	6	0	0
USWEX	5 Nov – 13 Nov 2019	9	5	0	0
C2X	19 Nov – 13 Dec 2019	26	9	5	5
	<b>Total</b>	<b>46</b>	<b>20</b>	<b>5</b>	<b>5</b>

**HSTT Study Area Major Training Exercise Marine Mammal Observations When Mitigation Occurred**

There were five sightings of marine mammals over the course of the three MTEs in the HSTT Study Area (see **Table 1-5**) that required active sonar mitigation. The breakdown of sightings by species type is shown in **Table 1-6**.

**Table 1-6. Total number of marine mammal sightings observed from Navy platforms when mitigation occurred during Major Training Exercises.**

Species Type	# of Sightings	% of Total Sightings	# of Marine Mammals	% of Total Number of Marine Mammals
Dolphins	1	20%	1	20%
Whales	4	80%	4	80%
Pinnipeds	0	0%	0	0%
Turtles	0	0%	0	0%
Not recorded	0	0%	0	0%
<b>Totals:</b>	<b>5</b>		<b>5</b>	

There were also eight instances of Navy ships maneuvering to avoid marine mammals, or to avoid crossing the path of marine mammals. Of these eight maneuvers, three were to avoid whales (n=3 whales) and 5 were to avoid dolphins (n=85 dolphins).

**SUMMARY: Mitigation Effectiveness and Navy Mitigation Zone Adherence**

During this year’s MTEs in the HSTT Study Area, prescribed NMFS mitigation zones were effectively applied in cases of observation of marine mammals within the applicable zone. **Table 1-7** depicts the maximum estimated receive levels by the marine mammal at the time the mitigation measure was applied. In each case, the Permanent Threshold Shift (PTS) threshold is higher than the estimated maximum exposure level prior to mitigation which means that the marine mammal was unlikely to experience injury. During this reporting period the proper implementation of mitigation measures for sighted marine mammals is estimated to be highly effective at preventing exposures that may result in injury (e.g. PTS).

The two categories of mitigation measures (procedural mitigation and mitigation areas) outlined in the HSTT Final Environmental Impact Statement (EIS)/Overseas Environmental Impact Statement (OEIS) of October 2018 and approved by NMFS in the HSTT Training LOA were effective in appropriately mitigating exposure of marine mammals to sonar. Fleet commanders, aircrews and ship watch teams continue to improve individual awareness and enhance reporting practices. This improvement can be attributed to the various pre-exercise conferences,

**Table 1-7. Sightings where sonar was on during detection of marine mammals and mitigation conducted.**

Location	MTE	Month	Species sighted	# of marine mammals sighted	Platform	Length of time observed (min)	Range at which marine mammal sighted	Mitigation (Sonar powerdown, sonar shutdown)	Estimate MAX exposure PRIOR to mitigation (dB re 1µPa) <sup>1</sup>	Number of minutes sonar mitigation applied	Estimate exposure AFTER mitigation (dB re 1µPa) <sup>1</sup>	DISTANCE ship would have moved given length of mitigation and nominal 10-knot ship speed (yds)	If source in use is hull-mounted sonar, relative bearing of animal from ship and estimation of animal's motion relative to ship	Observed behavior
SOCAL	C2X	Nov	Whale	1	DDG	5	200-500	Shut down sonar	<181-189	14	None	4,667	Whale bearing 000T, vessel course 246T, opening vessel	Swimming
SOCAL	C2X	Nov	Dolphin	1	DDG	nr	nr	Powered down sonar	<181-189	4	<171-179	1,333	nr	nr
SOCAL	C2X	Nov	Whale	1	DDG	5	200-500	Shut down sonar	<181-189	3	None	1,000	Whale bearing 270T, vessel course 190T, opening vessel	Swimming
SOCAL	C2X	Nov	Whale	1	DDG	2	500-1000	Shut down sonar	<175-181	4	None	1,333	Whale bearing 074T, vessel course 093T, paralleling vessel	Blowing
SOCAL	C2X	Nov	Whale	1	DDG	4	1000-2000	Shut down sonar	<175	4	None	1,333	Whale bearing 270T, vessel course 151T, paralleling vessel	Blowing

nr=not reported

<sup>1</sup>Estimated exposure based on 20Log[R] spherical spreading propagation loss for ranges less than 1,000 yards and where nominal active sonar Source Level (SL) assumed to be 235 dB for CGs and DDGs. Actual operating parameters and oceanographic condition likely result in lower exposure. This calculation assumes exposure prior to mitigation. Once animal was spotted at the range indicated, applied mitigation would have resulted in much lower to no exposures.



mandatory Marine Species Awareness Training (including on-line training required for watch standing qualifications), adherence to required active sonar mitigation zones, and application of lessons learned in marine mammal sighting and reporting.

## **Exposure Assessment**

Estimated exposures within 2,000 yards can be determined based on standard formulas of how sound propagates in water. Spherical spreading is generally valid within 1,000 yards from the sound source, and can be expressed as spreading loss (in dB from a source) equals  $20\log R$  (with “R” being range from the source in yards). Spherical spreading loss in the first 1,000 yards equates to 60 dB of loss. At ranges between 1,000 and 2,000 yards, the sound waves become trapped by the sea surface and bottom and cannot expand vertically. The spreading wave then forms an expanding cylinder. Cylindrical spreading loss in dB between two points can be calculated by using the formula  $(10\log R2/R1)$ , with “R2” being the longer range, and “R1” being 1,000 yards. Cylindrical spreading loss between 1,000 and 2,000 yards equates to an additional 3 dB of loss. By the time the wave has propagated to 2,000 yards, the sonar signal strength has decreased by a total of 63 dB. Using the AN/SQS-53 sonar as an example, transmitting at 235 dB and subtracting the 63 dB of spreading loss equates to an estimated sonar Receive Level (RL) of 172 dB at 2,000 yards. The spreading loss formulas are used to make very conservative assumptions about potential exposure. The formula is an estimation of spreading losses only and does not take into account other factors that could increase the total propagation losses such as oceanographic conditions, attenuation losses, scattering losses, and Navy-unique MFAS operating parameters which would result in slightly lower sonar transmit levels. Use of this approach to estimate potential RL at any given animal assumes the horizontal range from a visual sighting accounts for an animal across all depths at which an animal travels to predict the maximum, worst case potential exposure. In other words, this estimated worst case exposure is presented independent of the animal’s actual depth level, since a) time and depth of current and previous dives cannot be deduced from a limited surface sighting, and b) oceanographic and tactical conditions influence actual sound propagation at different depths. Given the relative motion of ships and animals at sea, the time spent with any given exposure from surface ships is likely to be limited.

## **(2) HSTT – Sinking Exercises (SINKEXs)**

No SINKEXs were conducted in the HSTT Study Area during the reporting period.

### (3) HSTT – Summary of Sources Used

This section summarizes total annual usage of each type of sound source used for training within HSTT from 21 December 2018 to 20 December 2019, which constitutes Year 1 of the 5-year authorization.

#### (i) Total annual hours or quantity of each bin of sonar or other acoustic sources

**Table 3-1. Annual Training Acoustic Source Usage within the HSTT Study Area by Source Bin.**

Authorized sound sources from HSTT Final Rule	Authorized Amount <sup>1</sup> (21Dec18- 20Dec19)	Actual Usage (21Dec18- 20Dec19)	% Used of Authorized Amount
(i) Acoustic Sources Used During Annual Training			
LF6	121	*	*
MF1	5,779	*	*
MF1K	100	*	*
MF3	2,080	*	*
MF4	414	*	*
MF5	5,704	*	*
MF6	9	*	*
MF11	718	*	*
MF12	161	*	*
HF1	1,795	*	*
HF3	287	*	*
HF4	2,316	*	*
HF8	118	*	*
ASW1	194	*	*
ASW2	688	*	*
ASW3	5,005	*	*
ASW4	1,284	*	*
ASW5	220	*	*
TORP1	231	*	*
TORP2	521	*	*
FLS2	28	*	*
M3	61	*	*
SAS2	900	*	*
SAS4	42	*	*
Pile driving	238	0	0%
Pile removal	238	0	0%

<sup>1</sup>Expected annual use may vary per bin because the number of events may vary from year to year, as described in Section 1.5 (Specified Activities) of the Navy’s rulemaking/LOA application. Minimum range values from HSTT Final Rule are shown here, if applicable.

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

**(ii) Total annual expended/detonated ordnance for each explosive bin**

**Table 3-2. Annual Training Explosive Source Usage within the HSTT Study Area by Source Bin.**

Authorized sound sources from HSTT Final Rule		Authorized Amount <sup>1</sup> (21Dec18- 20Dec19)	Actual Usage (21Dec18- 20Dec19)	% Used of Authorized Amount
(ii) Explosive Sources Used During Annual Training				
E1	Medium-caliber projectile	2,940	2,629	89%
E2	Medium-caliber projectile	1,746	492	28%
E3	Large-caliber projectile	2,797	405	15%
E4	Mine neutralization charge	38	4	11%
E5	5-inch projectile	4,730	773	16%
E6	Hellfire missile	592	35	6%
E7	Demo block / shaped charge	13	1	8%
E8	Maverick missile	33	17	52%
E9	500 lb. bomb	410	38	9%
E10	Harpoon missile / 1,000 lb. bomb	219	16	7%
E11	650 lb. mine	7	1	14%
E12	2,000 lb. bomb	16	0	0%
E13	Multiple Mat Weave charges	9	0	0%

<sup>1</sup>Expected annual use may vary per bin because the number of events may vary from year to year, as described in Section 1.5 (Specified Activities) of the Navy’s rulemaking/LOA application. Minimum range values from HSTT Final Rule are shown here, if applicable.

**Table 3-3. 5-year Cumulative Training Sound Source Usage within the HSTT Study Area by Source Bin.**

Sound Source Bin	Year 1 Actual Usage (21Dec18-20Dec19)	5-yr Authorized Amount (21Dec18-20Dec23)	5-yr Cumulative Actual Usage (21Dec18-20Dec23)	% Used of 5-yr Authorized Amount
<b>(i) Acoustic Sources Used During Annual Training</b>				
LF6	*	668	*	*
MF1	*	28,809	*	*
MF1K	*	500	*	*
MF3	*	10,440	*	*
MF4	*	2,070	*	*
MF5	*	28,300	*	*
MF6	*	45	*	*
MF11	*	3,597	*	*
MF12	*	884	*	*
HF1	*	8,939	*	*
HF3	*	1,345	*	*
HF4	*	10,380	*	*
HF8	*	588	*	*
ASW1	*	1,048	*	*
ASW2	*	3,346	*	*
ASW3	*	25,955	*	*
ASW4	*	6,407	*	*
ASW5	*	1,260	*	*
TORP1	*	1,137	*	*
TORP2	*	2,407	*	*
FLS2	*	140	*	*
M3	*	153	*	*
SAS2	*	4,498	*	*
SAS4	*	210	*	*
Pile driving	0	1,190	0	0%
Pile removal	0	1,190	0	0%
<b>(ii) Explosive Sources Used During Annual Training</b>				
E1	2,629	14,700	2,629	18%
E2	492	8,730	492	6%
E3	405	13,985	405	3%
E4	4	190	4	2%
E5	773	23,750	773	3%
E6	35	2,872	35	1%
E7	1	65	1	1%
E8	17	170	17	10%
E9	38	2,090	38	2%
E10	16	1,100	16	1%
E11	1	45	1	2%
E12	0	77	0	0%
E13	0	45	0	0%

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

#### (4) HSTT – Humpback Whale Special Reporting Area (December 15 – April 15)

The amount of surface ship hull-mounted mid-frequency active sonar used for training in the six Humpback Whale Special Reporting Areas during this period is presented in the classified version of this report.

#### (5) HSTT – HSTT Study Area Mitigation Areas

The amount of active sonar and in-water explosives used for training in the HSTT Study Area Mitigation Areas is shown in Tables 5-1 through 5-6 below.

**Table 5-1. Training Active Sonar & In-Water Explosive Usage within the Hawaii Island Mitigation Area (year-round).**

Authorized sound sources from HSTT Final Rule		Actual Usage <sup>1</sup>
MF1	Hull-mounted surface ship sonars (e.g. AN/SQS-53/61)	*
MF4	Helicopter-deployed dipping sonars (e.g. AN/AQS-22)	*
In-Water Explosives	All Explosive Bins	0

<sup>1</sup>MF1 usage did not exceed 300 hours and MF4 usage did not exceed 20 hours

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

**Table 5-2. Training Active Sonar & In-Water Explosive Usage within the 4-Islands Region Mitigation Area (November 15 through April 15 for active sonar; year-round for explosives).**

Authorized sound sources from HSTT Final Rule		Actual Usage
MF1	Hull-mounted surface ship sonars (e.g. AN/SQS-53/61)	*
In-Water Explosives	All Explosive Bins	0

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

**Table 5-3. Training Active Sonar & In-Water Explosive Usage within the San Diego Arc Mitigation Area (June 1 through October 31).**

Authorized sound sources from HSTT Final Rule		Actual Usage <sup>1</sup>
MF1	Hull-mounted surface ship sonars (e.g. AN/SQS-53/61)	*
In-Water Explosives	All Explosive Bins	0

<sup>1</sup>Combined MF1 usage did not exceed 200 hours

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

**Table 5-4. Training Active Sonar & In-Water Explosive Usage within the San Nicholas Island Mitigation Area (June 1 through October 31).**

Authorized sound sources from HSTT Final Rule		Actual Usage <sup>1</sup>
MF1	Hull-mounted surface ship sonars (e.g. AN/SQS-53/61)	*
In-Water Explosives	All Explosive Bins	0

<sup>1</sup>Combined MF1 usage did not exceed 200 hours

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

**Table 5-5. Training Active Sonar & In-Water Explosive Usage within the Santa Monica/Long Beach Mitigation Area (June 1 through October 31).**

Authorized sound sources from HSTT Final Rule		Actual Usage <sup>1</sup>
MF1	Hull-mounted surface ship sonars (e.g. AN/SQS-53/61)	*
In-Water Explosives	All Explosive Bins	0

<sup>1</sup>Combined MF1 usage did not exceed 200 hours

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

**Table 5-6. Training Active Sonar & In-Water Explosive Usage within the Santa Barbara Island Mitigation Area (year-round).**

Authorized sound sources from HSTT Final Rule		Actual Usage
MF1	Hull-mounted surface ship sonars (e.g. AN/SQS-53/61)	*
In-Water Explosives	All Explosive Bins	0

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

## **(6) HSTT – Geographic Information Presentation**

The precise locations and frequency of ASW training 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 Training Exercise Report.

## **(7) HSTT – Sonar Exercise Notification**

The Navy submitted all required information to NMFS for all MTEs during the reporting period, including location of the exercise, beginning and end dates of the exercise, and type of exercise.