

# **ANNUAL MISSION ACTIVITIES REPORT 2011**

**FOR THE**

**NAVAL SURFACE WARFARE CENTER PANAMA  
CITY DIVISION (NSWC PCD) STUDY AREA**

**Submitted To:**

**Office of Protected Resources  
National Marine Fisheries Service  
1315 East-West Highway  
Silver Spring, MD 20910-3226**

**In accordance with:**

**January 21, 2011 Letter of Authorization for NSWC PCD  
Mission Activities; 50 CFR Part 218, Subpart S;  
and the 2011 Annual Biological Opinion for NSWC PCD  
Mission Activities**



**September 2011**

***THIS PAGE INTENTIONALLY LEFT BLANK***

**ANNUAL MISSION ACTIVITIES REPORT**  
**2011**  
**FOR THE**  
**NAVAL SURFACE WARFARE CENTER PANAMA CITY DIVISION**  
**(NSWC PCD) STUDY AREA**

---

---

**Submitted To:**

**Office of Protected Resources  
National Marine Fisheries Service  
1315 East-West Highway  
Silver Spring, MD 20910-3226**

**In accordance with:**

**January 21, 2011 Letter of Authorization for NSWC PCD Mission Activities;  
50 CFR Part 218, Subpart S; and the 2011 Annual Biological Opinion for  
NSWC PCD Mission Activities**

**AUGUST 2011**

***THIS PAGE INTENTIONALLY LEFT BLANK***

## Table of Contents

LIST OF ACRONYMS AND ABBREVIATIONS .....	ii
I. INTRODUCTION .....	1
II. TEST ACTIVITIES INVOLVING MID-FREQUENCY ACTIVE SONAR (MFAS)/HIGH FREQUENCY ACTIVE SONAR (HFAS).....	4
III. TEST ACTIVITIES INVOLVING EXPLOSIVES.....	6
IV. TEST ACTIVITIES INVOLVING PROJECTILES .....	7
V. ANNUAL FREQUENCIES AND LOCATIONS FOR NSWC PCD MISSION ACTIVITIES.....	8
VI. LIST OF PREPARERS.....	9
VII. REFERENCES .....	10

## List of Tables

Table 1. Total Number of Each Type of MFAS and HFAS Authorized in the 2011 Annual LOA versus Conducted in the NSWC PCD Study Area in Territorial Waters (Number Authorized vs. Conducted).....	4
Table 2. Total Number of Each Type of MFAS and HFAS Authorized in the 2011 Annual LOA versus Conducted in the NSWC PCD Study Area in Non-territorial Waters (Number Authorized vs. Conducted).....	5

## List of Figures

Figure 1. NSWC PCD Study Area: Gulf of Mexico.....	2
Figure 2. NSWC PCD Study Area: Nearshore and St. Andrew Bay.....	3

## List of Acronyms and Abbreviations

BE	Biological Evaluation
BO	Biological Opinion
DON	Department of the Navy
DT	Developmental Test
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FQTs	Final Qualifications Tests
HFAS	High-frequency Active Sonar
hrs	Hours
ITS	Incidental Take Statement
kHz	Kilohertz
LCS	Littoral Combat Ship
LOA	Letter of Authorization
LRIP	Low-rate Initial Production
MFAS	Mid-frequency Active Sonar
MMPA	Marine Mammal Protection Act
NMFS	National Marine Fisheries Service
NSWC PCD	Naval Surface Warfare Center Panama City Division
OEIS	Overseas Environmental Impact Statement
OT	Operational Test
RDT&E	Research, Development, Test, and Evaluation
TECHEVAL	Technical Evaluation
U.S.	United States

## I. INTRODUCTION

The United States (U.S.) Navy prepared this Annual Mission Activities Report covering the period from August 2, 2010 to August 1, 2011 pursuant to the National Marine Fisheries Service (NMFS) Marine Mammal Protection Act (MMPA) regulations (NMFS, 2010a) for the Naval Surface Warfare Center Panama City Division (NSWC PCD) Study Area (50 Code of Federal Regulations [C.F.R.] Part 218, Subpart S). The report also provides the information required by NMFS's Biological Opinion (BO) on NSWC PCD Mission Activities (NMFS, 2010b, 2011a) issued pursuant to the Endangered Species Act (ESA). The scope of NMFS's BO includes the same research, development, test, and evaluation (RDT&E) activities using sonar systems, explosives, and projectiles as governed by the above MMPA regulations. Figures 1 and 2 show the geographic extent of the NSWC PCD Study Area.

In the MMPA regulations (NMFS, 2010a [50 C.F.R. § 218.184]) and the Letter of Authorization (LOA) for NSWC PCD Mission Activities (NMFS, 2010a [Section 7], 2011b), the following reporting requirements were specified and are presented in Sections II-IV of this report:

- 1) Test Activities Involving Mid-Frequency Active Sonar (MFAS)/High Frequency Active Sonar (HFAS).
- 2) Test Activities Involving Underwater Explosive Detonations.
- 3) Test Activities Involving Projectile Firing.

In NMFS's BO (NMFS, 2011a [page 153], the following *Reasonable and Prudent Measures* listed in the Incidental Take Statement (ITS) were specified and are addressed in Section V of this report:

- "The U.S. Navy shall submit reports that identify the general location, timing, number of sonar hours, and other aspects of the RDT&E activities the U.S. Navy plans to conduct at NSWC PCD in Panama City, Florida, over the twelve-month period between January 2011 and January 2012."

The information contained in this report represents the best practical data collection as of August 1, 2011. The operational data are collected through the NSWC PCD Environmental Review Process, which is detailed in Chapter 5 *Mitigation and Protective Measures* of the NSWC PCD Mission Activities Environmental Impact Statement (EIS)/Overseas Environmental Impact Statement (OEIS) (DON, 2009). The data provided in the following tables indicates that the U.S. Navy is not exceeding the average annual allotment of authorized test events as of August 1, 2011. Future activities conducted under the NSWC PCD Mission Activities LOA will continue to ensure that the 5-year total allotment is not exceeded. U.S. Navy test events are variable within any given year based on the evolving nature of RDT&E test plans and the current status of operating systems undergoing RDT&E, as well as scheduling, budgeting, and environmental conditions. Therefore, the data on the amount of activities conducted in the NSWC PCD Study Area may vary annually, potentially resulting in higher or lower amounts of reported NSWC PCD RDT&E mission activities in future annual mission activity reports.

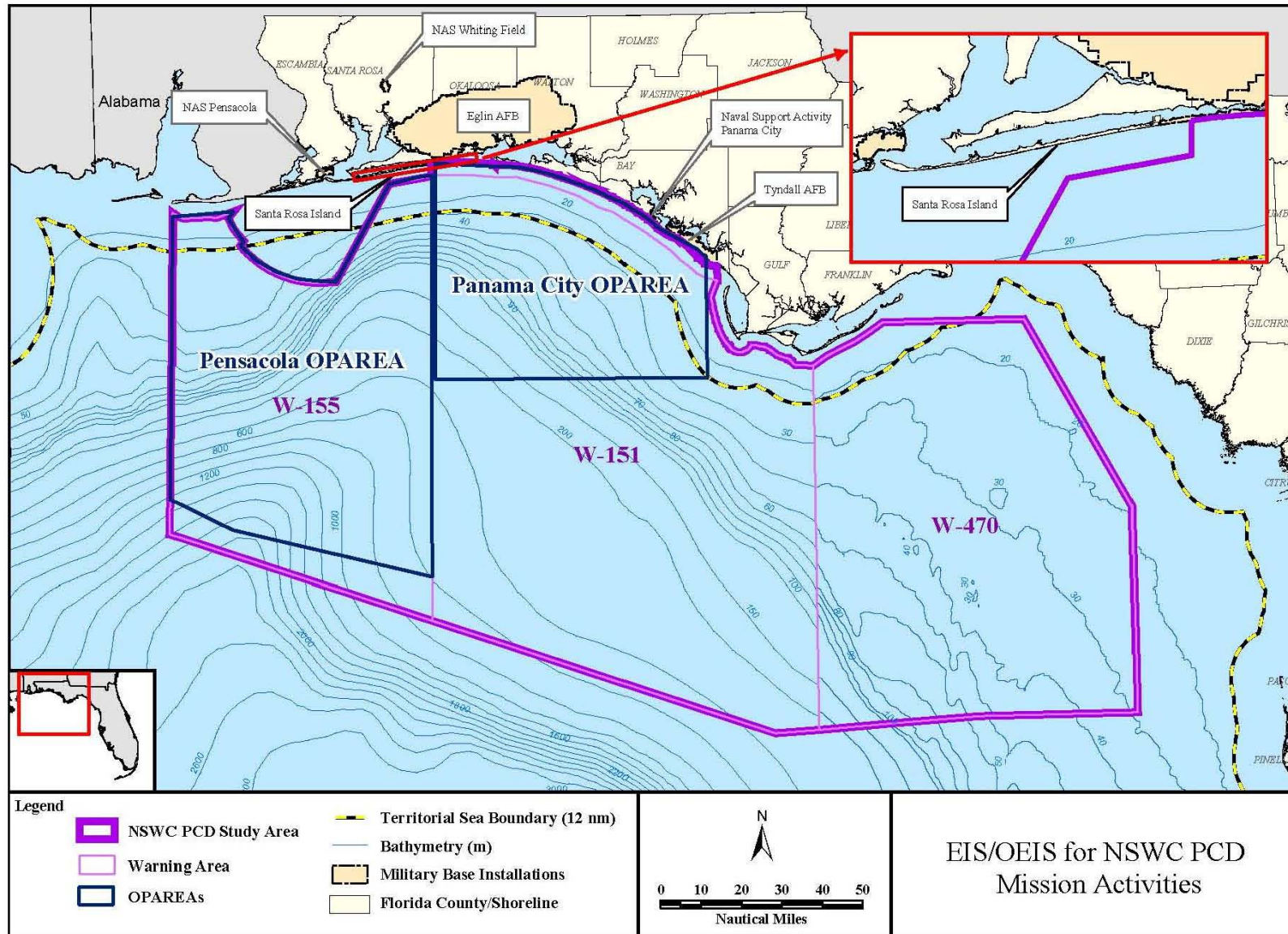


Figure 1. NSWC PCD Study Area: Gulf of Mexico.



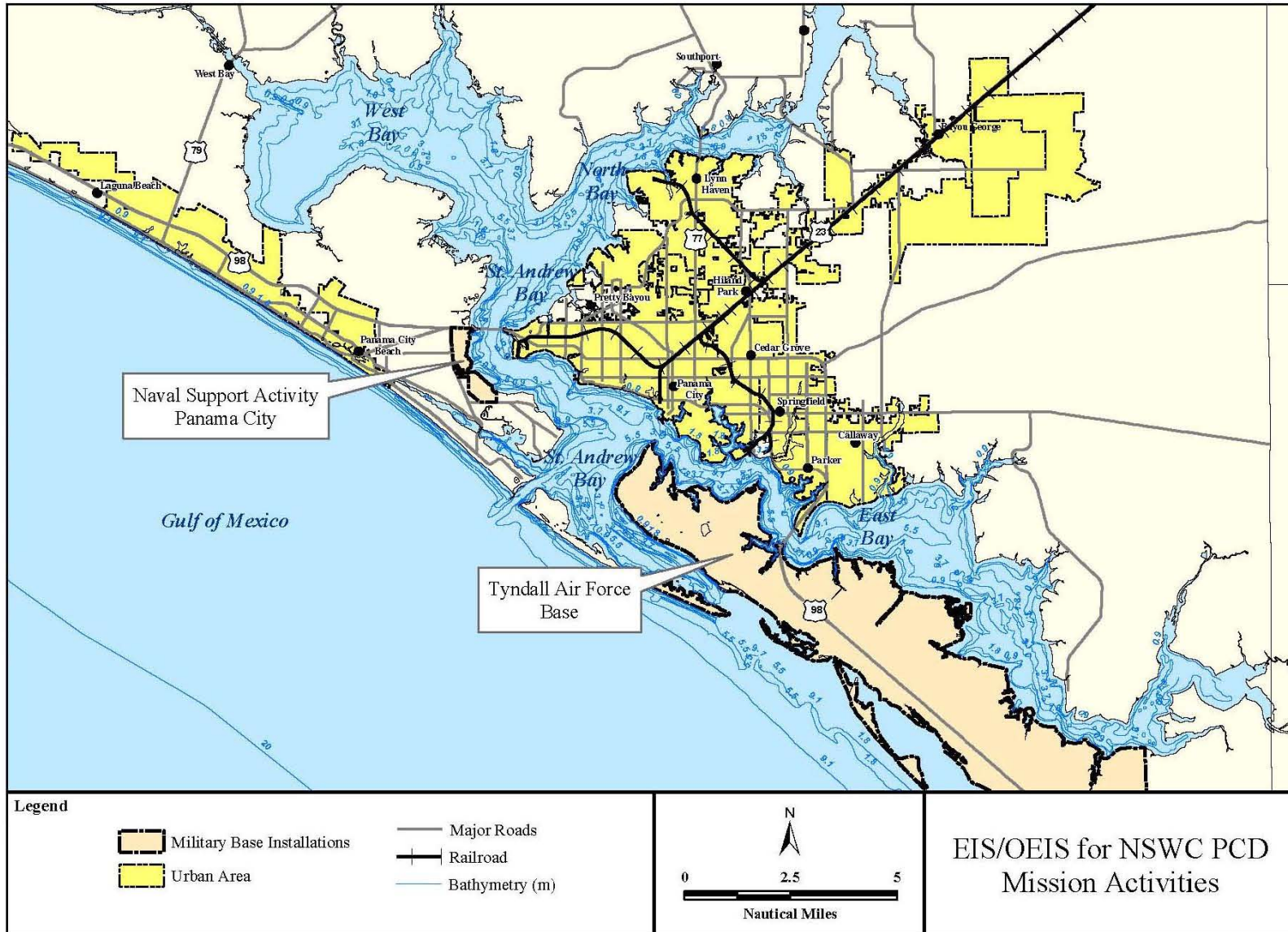


Figure 2. NSWC PCD Study Area: Nearshore and St. Andrew Bay.

## II. TEST ACTIVITIES INVOLVING MID-FREQUENCY ACTIVE SONAR (MFAS)/HIGH FREQUENCY ACTIVE SONAR (HFAS)

Tables 1 and 2 below provide a summary of the use of MFAS and HFAS in the NSWC PCD Study Area. During this time period, NSWC PCD conducted 409.27 hours (hrs) of sonar testing, including 382.27 hours in territorial waters (see Table 1) and 27 hours in non-territorial waters (see Table 2).

**Table 1. Total Hours of Each Type of MFAS and HFAS Authorized in the 2011 Annual LOA versus Conducted in the NSWC PCD Study Area in Territorial Waters (Hours Authorized vs. Conducted).**

Sonar System	Hours Authorized	Hours Conducted
AN/SQS-53/56 Kingfisher	3	0
Sub-bottom Profiler (2-9 kilohertz [kHz])	21	0
REMUS SAS-LF	12	1
REMUS Modem	25	20.8
Sub-bottom Profiler (2-16 kHz)	24	8
AN/SQQ-32	30	0
REMUS-SAS-LF	20	17.8
SAS-LF	35	34
AN/WLD-1RMS-ACL	33.5	0
BPAUV Sidescan	25	9
TVSS	15	0
F84Y	15	0
BPAUV Sidescan	25	0
REMUS-SAS-HF	10	10
SAS-HF	11.5	8
AN/AQS-20*	545	269.57
AN/WLD-11 RMS Navigation	15	4
BPAUV Sidescan	30	0.1

\* Source: NMFS, 2011b

During these sonar test events, the U.S. Navy employed the appropriate mitigation measures as outlined in the NSWC PCD Mission Activities EIS/OEIS (DON, 2009).

**Table 2. Total Hours of Each Type of MFAS and HFAS Authorized in the 2011 Annual LOA versus Conducted in the NSWC PCD Study Area in Non-territorial Waters (Hours Authorized vs. Conducted).**

Sonar System	Hours Authorized	Hours Conducted
AN/SQS-53/56 Kingfisher	1	0
Sub-bottom Profiler (2-9 kHz)	1	0
REMUS Modem	12	0
Sub-bottom Profiler (2-16 kHz)	1	0
AN/SQQ-32	1	0
SAS-LF	15	0
AN/WLD-1RMS-ACL	5	0
BPAUV Sidescan	38	8
TVSS	16.5	8
F84Y	15	0
REMUS-SAS-HF	25	0
SAS-HF	15	0
AN/SQS-20*	15	11
BPAUV Sidescan	25	0

\* Source: NMFS, 2011b

### **III. TEST ACTIVITIES INVOLVING EXPLOSIVES**

NSWC PCD did not conduct any RDT&E mission activities involving explosives during the reporting period.

#### **IV. TEST ACTIVITIES INVOLVING PROJECTILES**

NSWC PCD did not conduct any RDT&E mission activities involving projectile firing during the reporting period.

## **V. ANNUAL FREQUENCIES AND LOCATIONS FOR NSWC PCD MISSION ACTIVITIES**

U.S. Navy RDT&E mission descriptions, frequencies, and locations for the NSWC PCD Study Area have not changed from those described in the U.S. Navy's Biological Evaluation (BE) for NSWC PCD Mission Activities (DON, 2008), and the U.S. Navy's Final EIS/OEIS for NSWC PCD Mission Activities (DON, 2009). RDT&E mission activities conducted in the NSWC PCD Study Area have not changed since NMFS issued the annual BOs (NMFS, 2010b, 2011a). The type, manner, and frequency of RDT&E activities in the NSWC PCD Study Area for the next 12 months is described in the U.S. Navy's BE (DON, 2008) and not repeated in this report.

## VI. LIST OF PREPARERS

**Carmen Ferrer**

Environmental Branch Head  
NSWC PCD

**Erica Ifode**

Environmental Planner  
NSWC PCD

**Beth Branham**

Oceanographer/Test and Evaluation Division Coordination  
NSWC PCD

**Jennifer N. Latusek-Nabholz**

Project Manager and Author  
HDR Environmental, Operations, and Construction

**Keri C. Lestyk**

Author  
HDR Environmental, Operations, and Construction

**Dagmar Fertl**

Technical Reviewer  
HDR Environmental, Operations, and Construction

**Randy Gallien**

Technical Reviewer  
HDR Environmental, Operations, and Construction

**Daniel Engelhaupt, PhD**

Technical Reviewer  
HDR Environmental, Operations, and Construction

**Christopher McJeters**

Technical Editor  
HDR Environmental, Operations, and Construction

**Cheryl Myers**

Document Formatting and Production  
HDR Environmental, Operations, and Construction

**Bob Kenney, PhD**

University of Rhode Island  
Technical Reviewer

## **VII. REFERENCES**

- Department of the Navy (DON). 2008. Biological Evaluation for Naval Surface Warfare Center Panama City Division (NSWC PCD) Mission Activities. Submitted to NMFS, Office of Protected Resources, Silver Spring, Maryland by NSWC PCD, Panama City, Florida.
- DON. 2009. Naval Surface Warfare Center Panama City Division (NSWC PCD) Mission Activities Environmental Impact Statement (EIS)/Overseas Environmental Impact Statement (OEIS). NSWC PCD, Panama City, Florida. September 2009.
- National Marine Fisheries Service (NMFS). 2010a. Letter of Authorization to Take Marine Mammals Incidental to U.S. Naval Surface Warfare Center Panama City Division Mission Activities. Issued January 21, 2010.
- NMFS. 2010b. Biological Opinion on the Permits Division's Proposal to Issue a Letter of Authorization for the U.S. Navy to "Take" Marine Mammals Incidental to Research, Development, Test, and Evaluation Activities at the Naval Surface Warfare Center in Panama City, Florida, from January 2010 through January 2011. Issued January 14, 2010.
- NMFS. 2011a. Biological Opinion on the Permits Division's Proposal to Issue a Letter of Authorization for the U.S. Navy to "Take" Marine Mammals Incidental to Research, Development, Test, and Evaluation Activities at the Naval Surface Warfare Center in Panama City, Florida, from January 2011 through January 2012. Issued January 7, 2011.
- NMFS. 2011b. Letter of Authorization to Take Marine Mammals Incidental to U.S. Naval Surface Warfare Center Panama City Division Mission Activities. Issued January 13, 2011.