

Prepared for and submitted to:  
National Marine Fisheries Service  
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Prepared by:  
Department of the Navy  
In accordance with the Letter of Authorization  
Under the MMPA and ITS authorization under  
the ESA

# **Annual Range Complex Monitoring Report**

## **YEAR 1**

**12 November 2010 to 01 May 2011**

**For The U.S. Navy's**

**Northwest Training Range Complex (NWTRC)**

**01 July 2011**



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# THE US NAVY'S NORTHWEST TRAINING RANGE COMPLEX

## YEAR 1 ANNUAL MONITORING REPORT

### INTRODUCTION

The U.S. Navy (Navy) prepared this Year 1 Annual Range Complex Monitoring Report covering the period from 12 November 2010 to 01 May 2011 in compliance with the National Marine Fisheries Service (NMFS) Final Rule under the Marine Mammal Protection Act for the Northwest Training Range Complex.

### YEAR 1 SUMMARY

The Navy met its current Northwest Training Range Complex monitoring obligations as specified in the NMFS Final Rule and subsequent annual Letter of Authorization, although data has not yet been obtained from the devices. This was particularly relevant given the limited amount of time from authorization of the Northwest Training Range Complex Letter of Authorization on 12 Nov 2010 and the end of the first monitoring period through 01 May 2011, and the US Government-wide stop-gap budget funding under a Continuing Resolution from October 2010 to March 2011.

Two high-frequency acoustic monitoring packages (HARP) were deployed by Scripps Institute of Oceanography (SIO) within the Northwest Training Range Complex.

[http://cetus.ucsd.edu/technologies\\_AutonomousRecorders.html](http://cetus.ucsd.edu/technologies_AutonomousRecorders.html)

One HARP was deployed in January 2011 approximately 25 nm from the coast in the southern part of NOAA's Olympic Coast National Marine Sanctuary (Figure 1). SIO has had HARPs in the same approximate location periodically since 2004 (Oleson et al 2009). A second HARP was deployed in May 2011 near the edge of an underwater canyon west of the Olympic Coast National Marine Sanctuary boundary (Figure 1).

These devices placed on the ocean floor record marine mammal vocalizations on internal hard drives that must be retrieved during field service calls approximately every 4-5 months. Vocalization data from these HARPs is currently undergoing analysis by SIO, and results will eventually be presented in the Navy's July 2012 Northwest Training Range Complex Monitoring Report. One HARP previously in place east of Quinault Canyon under Navy funding from a different program, and for which initial data analysis would have hopefully been included within this report was found missing on a subsequent retrieval cruise in the fall\early winter of 2010. Cause of this loss is currently unknown, although SIO has reported problems in the past with bottom nets pulled from commercial fishing trawlers snagging bottom placed HARPs in this vicinity. While the HARP has been replaced, data from the previous year of recording is currently lost and not available for analysis.

Also within this reporting period, the Navy purchased 10 satellite tracking tags suitable for deployment on a suite of marine species within the Northwest Training Range Complex.

Two tag types are on order:

- 1) Smart Position or Temperature Transmitting Tag (SPOT5) and;
- 2) MK-10-A Data-Collecting Argos location-depth tag

Tags transmit animal movement data via the Argos satellite system. The commercial Argos system consists of data acquisition and relay equipment attached to National Oceanographic and Atmospheric Administration low-orbiting weather satellites and ground-based receivers and data processing systems. Field deployment for tagging marine mammals will occur in the spring and summer of 2011 in coordination with a joint NMFS, Cascadia Research Collective, Washington Department of Fish and Wildlife, and Oregon Department of Fish and Wildlife effort.

The Navy tags purchased for the Northwest Training Range Complex Monitoring Plan are complementary and similar to tags being used in this joint field project. The species of interest in this 3-year joint project are endangered cetaceans such as blue whales, fin whales, humpback whales, and sperm whales, but may also include high priority cetaceans such as beaked whales, in the event they are encountered in favorable tagging conditions. Other species of interest for tagging could also include seasonal resident gray whales and transient or offshore killer whales.



**Figure 1. Location of Navy funded HARPs deployed in January and May 2011 in relationship to Olympic Coast National Marine Sanctuary and associated bathymetry.**  
(Underlying graphic from NOAA Olympic Coast National Marine Sanctuary)

## **Year 2 Monitoring 2 May 2011 to 1 May 2012**

### *Adaptive Management For Monitoring In The Northwest Training Range Complex*

The NMFS has acknowledged that the Northwest Training Range Complex monitoring will enhance the understanding of marine mammal distributions within the offshore waters of northern California, Oregon, and Washington. Additionally, NMFS also pointed out that information gained from the investigations associated with the Navy's monitoring may be used in the adaptive management of mitigation or monitoring measures in subsequent NMFS authorizations, if appropriate. Therefore, the Navy's adaptive management of Northwest Training Range Complex monitoring under its Marine Mammal Protection Act responsibilities involves close coordination with NMFS to align marine mammal monitoring with the overall objectives stated within the Introduction to this report. To date, 2010 monitoring within the Northwest Training Range Complex only represents the beginning of Year 1 of a planned five year effort. As such, it would be premature to draw detailed conclusions or initiate comprehensive monitoring changes without further consultation and public review.

### *U.S. Ocean Policy*

On 19 July 2010, the President signed a new Executive Order on Stewardship of the Ocean, Our Coasts, and the Great Lakes which adopted the final recommendation of the Interagency Ocean Policy Task Force. Key recommendations include "Use the best available science and knowledge to inform decisions affecting the ocean..." and "Increase scientific understanding of ocean..." (EO 2010, CEQ 2010). Another integral part of these policy directions was to instill a collaborative spirit within the Federal Government in the planning, management, and program execution of ocean science projects. Both of these tenants, improved and using best available science along with increased collaboration, are similar to preceding recommendations of the Joint Subcommittee on Ocean Science and Technology (JSOST) on "Addressing the Effects of Human-Generated Sound on Marine Life: An Integrated Research Plan for U.S. federal agencies "(Southall et al. 2009).

### *Proposed 02 May 2011 to 01 May 2012 Monitoring*

The Navy proposes to keep the same level of monitoring effort in the Northwest Training Range Complex as was committed and accomplished in Year 1 from 12 Nov 2010 to 1 May 2011. Table 1 highlights these goals. In support of the JSOST recommendations, and Ocean Policy direction, the Navy is committed to structuring the Northwest Training Range Complex monitoring to address both NMFS regulatory required monitoring under the Northwest Training Range Complex Letter of Authorization while at the same time making significant contributions to the greater body of marine mammal science.

**Table 1. Navy's proposed Year 2 monitoring plan goals for the Northwest Training Range Complex from 2 May 2011 to 1 May 2012.**

Monitoring Technique	Implementation	
Marine Mammal Tagging	Conduct and report data from marine mammal tagging, leveraging existing field efforts where possible. Focus may be directed toward either detailed analysis or additional tags depending on need.	Adaptive Management
Passive Acoustic Monitoring	Maintain and present data analysis from two US Navy funded passive acoustic monitoring devices.	
<p><i>NO metric changes are envisioned in Year 2 (2011-2012) from the level of effort and funding performed in Year 1 (2010-2011)</i></p> <p>TOTAL Navy Year 2 Goal:</p> <ul style="list-style-type: none"> <li>• <i>Conduct/present results from tagging studies</i></li> <li>• <i>2 PAM devices and analysis</i></li> </ul>		

## References

CEQ. 2010. Final Recommendations Of The Interagency Ocean Policy Task Force-July 19, 2010. White House Council on Environmental Quality.

Department of the Navy (Navy). 2008. Request for Letter Of Authorization For the Incidental Harassment Of Marine Mammals Resulting From Navy Training Activities Conducted Within The Northwest Training Range Complex. September 2008.

Department of the Navy (Navy). 2009. Addendum to Request for Letter Of Authorization For the Incidental Harassment Of Marine Mammals Resulting From Navy Training Activities Conducted Within The Northwest Training Range Complex. 24 February 2009.

EO. 2010. Executive Order- Stewardship of the Ocean, Our Coasts, and the Great Lakes- July 19, 2010. Office of the White House.

NMFS. 2010a. Taking and Importing Marine Mammals; Navy Training Conducted Within The Northwest Training Range Complex; Final Rule. 10 Nov 2010. National Marine Fisheries Service, Office of Protected Resources. 75 FR 69296.

NMFS. 2010b. Letter of Authorization for Taking Marine Mammals Incidental To U.S. Navy Training in The Northwest Training Range Complex. 12 Nov 2010.

Oleson, E.M., J. Calambokidis, Erin Falcone, and Greg Schorr and J.A. Hildebrand. 2009. Acoustic and visual monitoring for cetaceans along the outer Washington coast- Technical Report, July 2004-September 2008. Prepared for U.S. Navy. Naval Postgraduate School, Monterey, CA. NPS-OC-09-001. 45 pp

Southall, B., Berkson, J., Bowen, D., Brake, R., Eckman, J., Field, J., Gisiner, R., Gregerson, S., Lang, W., Lewandoski, J., Wilson, J., and Winokur, R. 2009. Addressing the Effects of Human-Generated Sound on Marine Life: An Integrated Research Plan for U.S. federal agencies. Interagency Task Force on Anthropogenic Sound and the Marine Environment of the Joint Subcommittee on Ocean Science and Technology. Washington, DC.



## APPENDIX A

Appendix A contains a data summary of passive acoustic monitoring along the Washington State Coast from June 2008 to June 2009.

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