

APPENDIX A. Hawaii Range Complex Year Four Monitoring Plan and Adaptive Management Discussion for the period 02 August 2011 to 01 August 2012.

Prepared for
National Marine Fisheries Service
Office of Protected Resources

Prepared by
Department of the Navy
U.S. Pacific Fleet

**Hawaii Range Complex
Year Four Monitoring Plan
02 August 2011 to 01 August 2012**

01 October 2011

Overview:

Results of recent meetings, recommendations from the SAG as well as success and challenges in the field are under review and will be further discussed with NMFS at the annual adaptive management meeting in October 2011. Results will be used to revise and improve the monitoring program in the coming years, while maintaining the same level of effort. The Navy assembled a Scientific Advisory Group as well as convened monitoring meetings with NMFS, researchers and non-governmental organizations in October 2010 and June 2011 in the interest of soliciting input on monitoring objectives and methods. The June 2011 “Adaptive Management Meeting” was described in NMFS’ Final Rule. The recommendations that were generated during those meetings are currently under review by the Navy and will be further discussed with NMFS at the annual Adaptive Management Meeting in October of 2011. Results will be used to revise and improve the monitoring program in the coming years, while maintaining the same level of overall effort. However, they are not available for incorporation into this Letter of Authorization renewal request.

2012 -2014 Monitoring Commitments

Other than adding more flexible language to allow the PAM section, no changes are being recommended for 2012-2014 at this time. Once review of current monitoring methods and metrics are completed, they will be incorporated into new monitoring plans. There is no firm timeline for this effort, but it is anticipated to be completed in the spring of 2012.

Monitoring Technique	Implementation	Adaptive Management Review (AMR)
Visual Surveys (aerial or vessel) STUDIES 1,2,3,4, 5	120-160 hours before, during and after ASW training events including major training exercises (MTE), SCC, Unit Level Training (ULT) and/or explosive events.	
Marine Mammal Observers (MMO) STUDIES 1,2,3, 4, 5	MMO team aboard Navy surface platforms during 2 ASW and 6 explosive events	
Tagging STUDIES 1,2, 3	Tag a goal of 15 individual marine mammals	
Passive Acoustic Monitoring (PAM) STUDIES 1,2, 3	- Utilize a combination of autonomous recording devices, and/or sonobuoys and/or towed arrays to gather acoustic data. Continue collaboration of data collection and analysis from additional N45/ONR-funded autonomous PAM devices. Continue data analysis. - Continue use of the Pacific Missile Range Facility instrumented range hydrophones to gather and analyze marine mammal acoustic data.	