HAWAI'I UNDERSEA RESEARCH LABORATORY
QUICK LOOK REPORT
DIVE: P5-788

MISSION STATUS

Location: Hawaii Undersea Military Munitions Assessment Study Area

Latitude: [redacted] **Longitude:** [redacted]

Mission Date: 25 Nov 2012 **Duration: 6** hours, 20 mins

Maximum Depth: 567m

Project Title: HUMMA-III Phase 1 Field Program:
Submersible and Remote Camera Operations, Mass Spectrometer Transects

Principal Investigator: Margo Edwards

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Observer 1: JC King
Address: Office Assistant Dept. Sec. Army

Observer 2: Sonia Shjegstad
Address: Environet, Inc.

Pilot 1: Max Cremer **Pilot 2:** N/A

Scientific Data Acquired: Prepare an abstract outlining your objectives, techniques, findings, etc.

Objectives: Pisces V will collect a full suite of samples near M47 munitions (preferably one that is less than 25% breached). The Pisces IV has the TETHYS mass spectrometer onboard and will rendezvous with the Pisces V to monitor the sediments that they distribute in the water column as they are sampling. If time permits, both subs will undertake reconnaissance surveys between Target Cluster C and Target Cluster D.

Dive Summary: The sub was launched about 0808L and was on bottom by 0842L. Pisces V began to survey M47 munitions in the area to locate one that was less than 25% breached. Although one target was quickly identified, Pisces V could not safely locate itself for sampling given other munitions in the immediate vicinity. An M47 munitions meeting the minimally breached criteria was located at 1028L and Pisces V began sampling. Pisces V completed sampling at 1354L and awaited the arrival of Pisces IV for the experiment with the TETHYS mass spectrometer. The two subs rendezvoused at 1430L and the mass spec test commenced at 1440L. Because sampling was completed by the time of the rendezvous, the Pisces V instead disturbed sediment adjacent to the nose of the M47 and Pisces IV positioned itself within the sediment cloud to collect readings. At 1445L Pisces V began its video transect to the east. Because Pisces IV needed to be staged on the fantail for its ABS certification dive, Pisces V returned to the surface first, at 1502L.

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

1. Pisces V had already departed for Dive P5-788 when we learned that it was not carrying a marker. This meant that no marker could be deployed at the sample site. Also, the bio box was not on the Pisces V's sample basket, so no brisingids could be recovered on Dive P5-788.
2. The sub team observed that the larger shrimp are able to enter the shrimp trap, but are also able to leave the trap. Because the traps were truncated from their original 3-foot length to a new 1-foot length in order to easily fit on the HOV basket, there isn't as much room for shrimp that have entered the trap to disperse. Consequently, once ~20 shrimp have entered the trap, new shrimp who want to enter the trap are 'standing' on the backs of shrimp who are in the trap, as well as on the bait bag, and are able to easily exit the trap.

Recommendations for corrective action or improvement:

1. We recommend that the science team meet at the sub one hour before launch every day to double-check the configuration of the baskets prior to each dive.
2. The science team will revisit the configuration of the shrimp traps and look for a way to make more room on the trap interior – possibly by moving the bait bag further from the opening (but not close enough to the side to allow poaching by organisms not inside the trap). This may facilitate the collection of more H. laevigatus shrimp.

In your opinion, did the mission essentially achieve its purpose? Compare actual work accomplished with the work that was expected to be accomplished.

This dive achieved its purpose.

List specimens or samples collected on the mission.

P5-788	Sediment	Shrimp*	Box Core	Brisingid	Water
Daily Samples	18	3	1	0	0
Total Samples	41	12	4	2	0

DATA RELEASE

Data may be retained by the project leader for up to 2 years after the mission date with the following exception. NOAA may request to use photos for publication or publicity purposes at any time.

Fill in the appropriate statement below and sign this form.

I hereby release the data archived by HURL for public consumption following mission (project title)

held on_____(date) in the following way:

a. CTD data by_____(date)

b. video and images by_____(date)

c. other_____(date)

d. I will give my written consent to individuals wishing to use these data prior to the above dates depending on the nature of the request(s).

_____Principal Investigator