



Press Release

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UH Mānoa continues to investigate military munitions and chemical warfare material disposed of off Pearl Harbor

Honolulu, HI – On November 23, a full array of state-of-the-art technologies including several owned and operated by UH Mānoa's School of Ocean Earth Science and Technology (SOEST) will be used as part of an Army-funded research effort to investigate sea-disposed military munitions. This research will take place south of Pearl Harbor at an area designated by the U.S. Department of Defense (DoD) as the Hawaii-05 (HI-05) site. HI-05 is a deep-water site that is suspected to contain both conventional and chemical military munitions. (Consistent with an internationally accepted practice at the time, DoD disposed excess, obsolete or unserviceable munitions, including chemical warfare material, in some locations in ocean waters off the United States prior to 1970, at which time DoD discontinued this practice. Congress subsequently prohibited sea disposal of waste materials into the ocean in 1972.) UH is undertaking this research in partnership with Army, Woods Hole Oceanographic Institution (WHOI), and Environet, Inc., a local environmental consulting firm.

This effort is a continuation of previous research that used towed sidescan sonars, the Hawaii Undersea Research Laboratory (HURL) submersibles and remotely-operated vehicles to assess the effects of the ocean environment on sea-disposed munitions and sea-disposed munitions on the ocean environment and those who use it. During a 15-day research program in 2009, UH researchers imaged approximately 2,500 conventional munitions and collected sediment and water samples within 1 to 2 meters of 20 of them as well as biota samples from the area containing munitions. At these distances, no munitions constituents - materials originating from military munitions including explosive and non-explosive materials, such as metals, and degradation, or breakdown products - were detected in the samples collected. Since 2009, a separate field of munitions that DoD has identified as suspect chemical munitions was located. The upcoming research will focus on these munitions. "The Army considers this research effort extremely important to both helping close data gaps in DoD's understanding of the effects of chemical munitions on the ocean environment and helping validate and improve upon procedures developed for investigating sea disposal sites, particularly those in deep water," said Mr. Hershell Wolfe, the Deputy Assistant Secretary of the Army for Environment, Safety and Occupational Health.

During this phase of the research, the UH Research Vessel Kaimikai-o-Kanaloa will be used to deploy the HURL submersibles to collect sediment, water and biological samples within 1 to 2 meters from selected munitions and at control sites for laboratory analysis. Chemical analysis of the samples for munitions constituents, including explosives and chemical agents, will be performed. The results of the samples will be evaluated to assess whether any munitions constituents detected may have the potential to affect human health or the ocean environment. During the evenings, a towed camera system operated by WHOI will be used to create highly detailed digital photographic records of the munitions disposal area. The U.S. Army's Edgewood Chemical and Biological Center is providing chemical safety and analytical support for this effort.

"Beginning in 2007, UH's partnership with the U.S. Army and Environet significantly increased Hawaii's and the world's understanding of sea-disposed munitions: how they were disposed in the past and how they have deteriorated right up to the present time. The forthcoming field program will hopefully allow us to expand our understanding of the potential environmental impact of munitions that may contain chemical agent, and develop methods for monitoring and modeling future deterioration," states UH's Principal Investigator, Dr. Margo Edwards.

The Army will make the report of this research publicly available once the data has been evaluated and the report has been approved. The Army does not anticipate this report being released prior to January 2015.

For further information about the project, see www.hummaproject.com

The School of Ocean and Earth Science and Technology at the University of Hawaii at Manoa was established by the Board of Regents of the University of Hawai'i in 1988 in recognition of the need to realign and further strengthen the excellent education and research resources available within the University. SOEST brings together four academic departments, three research institutes, several federal cooperative programs, and support facilities of the highest quality in the nation to meet challenges in the ocean, earth and planetary sciences and technologies.

www.soest.hawaii.edu