Media Release

Public Affairs Office
U.S. Army Garrison, Hawaii
(808)656-3160/3154
"Malama na Koa"

Release number: 2011-08-02
Aug. 5, 2011

FOR IMMEDIATE RELEASE

ARMY COMPLETES DEMONSTRATION AT ORDNANCE REEF

WAIANAE, Hawaii— The Army has completed the field portion of its technical demonstration, here, to evaluate new strategies to recover and destroy underwater military munitions.

The demonstration began July 11 and is part of the Department of Defense's (DOD) ongoing research of legacy underwater military munitions in U.S. coastal waters. It was conducted at an area off the Waianae Coast known as "Ordnance Reef."

During the demonstration, the Army assessed the capabilities of two adapted technologies—the Remotely Operated Underwater Munitions Recovery System (ROUMRS), and the Energetic Hazards Demilitarization System (EHDS). ROUMRS is based on technology used in oil exploration that has been adapted to recover underwater munitions, and EHDS is an adaption of land-based conventional munitions destruction technology for use on a barge.

Concurrently, the Army conducted research in coordination with the Navy and National Oceanic and Atmospheric Administration (NOAA). This research included obtaining metals from demilitarized munitions for corrosion studies, testing Army-developed technology that will be used to monitor locations where underwater military munitions are known to be present, and testing Navy-developed technology to assist in determining the content, or fill, of munitions (explosives, chemicals). The Army also assisted a team of local high school students with the placement of an underwater camera that the students had developed to support their study of the impact of munitions on sea life.

"Collectively, the research conducted during this demonstration will advance DOD's understanding of the potential impact of munitions on the ocean environment and of the ocean environment on munitions," said J. C. King, Assistant for Munitions and Chemical Matters, Office of the Deputy Assistant Secretary of the Army for Environment, Safety and Occupational Health.

Preliminary demonstration results indicate that these technologies meet DOD requirements for the safe remote recovery of underwater military munitions and their at-sea destruction in a manner that mitigates explosives safety risks and minimizes potential environmental impacts.

- MORE -

"The demonstration thoroughly tested the capabilities of ROUMRS and EHDS, and we believe this demonstration met or exceeded our objectives," King said.

The Army's four main objectives were to: (1) Perform a demonstration of technologies capable of remotely recovering underwater military munitions and destroying recovered military munitions safely; (2) Provide for the safety of personnel supporting the demonstration and the public; (3) Limit damage to the ocean environment (e.g., coral reefs) during the recovery and destruction processes; and (4) Restore the ocean environment to a more natural state following the project.

"Also important, this demonstration has provided us an opportunity to develop procedures and identify technical enhancements to improve the use of these technologies," King said.

ROUMRS and EHDS operators played a key role in identifying technical improvements.

ROUMRS operators recommended supplemental tools to assist ROUMRS in recovering munitions concreted to the ocean floor. They also recommended redesigning salvage baskets to speed recovery operations and lessen the impact of strong currents on these operations.

EHDS operators and the lead contractor recommended simplifying the design of the radiant heat convection ovens to improve and ensure their performance at maximum explosive loads, approximately 20 pounds each.

Overall, ROUMRS attempted to recover 152 small-, medium- and large items that appeared to be munitions. ROUMRS was able to recover 80 of these items, as well as approximately 2,300 small arms munitions (.50 caliber and smaller). The EHDS successfully treated 74 munitions (6 of the 80 recovered items turned out not to be munitions), destroying 330.8 pounds of explosives, 135 pounds of propellant, and all of the recovered small arms munitions.

To avoid injuring coral, the Army followed its plan and did not recover munition-like objects that had substantial coral growth on or around them. Additionally, the Army found that some objects were so concreted to the ocean floor that they were virtually not recoverable without specialized tools or excessive damage to coral and other benthic habitats. As such, the Army also left these objects in place.

NOAA assisted the Army by identifying coral areas to avoid, if possible, and recommending specific munition-like objects that should be left in place to avoid destroying habitat. NOAA's pre-demonstration efforts assisted the Army in avoiding coral injury. NOAA will conduct a post-demonstration survey to determine whether any inadvertent damage may have occurred during the demonstration, in which case they may recommend mitigation measures.

The Army will next develop and publish a report on the demonstration's results. Prior to releasing the report, the Army will convene the Ordnance Reef Coordinating Council to discuss these results and other research it is conducting at Ordnance Reef, including sampling of sediment and aquatic life.

For more information and videos of the current efforts, visit www.ordnancereefhawaii.org. From the site, viewers can link to the Army's Ordnance Reef Facebook and YouTube pages, or they can go directly to the pages by searching for "Ordnance Reef Hawaii" on Facebook and YouTube.