



Press Release

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UH School adds remotely operated vehicle Lu'ukai to its ocean exploration fleet

Honolulu, HI – The University of Hawai'i – Manoa (UHM) School of Ocean and Earth Science and Technology (SOEST) held a ceremony yesterday to name and launch operations on a new remotely operated vehicle (ROV) that will extend the vertical reach to 6000-m, over 3 miles, deep for ocean exploration in the state and throughout the Pacific Basin. The *Lu'ukai*, meaning “sea diver,” will complement the capabilities of the existing fleet of UH manned, remotely operated, and autonomous underwater vehicles.

After several successful shore-based tests, a traditional Hawaiian blessing and naming ceremony took place at the UH Marine Center. Kahu Kekoa of Kamehameha Schools invoked the *mana* of all people present to tie the name *Lu'ukai* to the vehicle. Now, the *Lu'ukai* is going on her maiden voyage on the R/V *Kilo Moana* for further testing before being opened up for scientific use. Follow Lu'ukai's adventures on twitter @LuukaiROV or follow along on Facebook (Friends of HURL, <https://www.facebook.com/hurlsubs>).



Ian Griffith, Operations Chief at DOER Marine; Scott Ferguson, Director of Marine Technical Services, SOEST; and Brian Taylor, SOEST Dean drape a *maile lei* on the ROV *Lu'ukai* during the naming and blessing ceremony.
Credit: Rachel Orange, HURL/SOEST.

Deep Ocean Exploration and Research (DOER) Marine designed and constructed the *Lu'ukai* for maximum maneuverability and mission flexibility. It will support operations at the ALOHA Cabled Observatory (ACO) and provide submersible capability for research on the two large UH research vessels, the R/V *Ka'imikai-O-Kanaloa* and R/V *Kilo Moana*. Equipped with manipulator arms, lights, sonar, and high definition still and video cameras, the ROV has the ability to collect specimens; characterize substrates on the seafloor; capture video and still images of activities and surveys; monitor water column properties; install, connect and test seafloor equipment; and perform other specialized tasks.

"This new capability for deep ocean exploration has been made possible through the scientists and engineers at HURL and throughout SOEST working together with DOER Marine to make the *Lu'ukai* a reality," said Sandy Shor, Associate Dean for Research at SOEST. "It's been exciting to see how they have addressed the science requirements and the engineering challenges. It's truly been a team effort."

The Hawai'i Undersea Research Laboratory (HURL), which already maintains two deep-diving manned submersibles the Pisces IV and Pisces V, will play a large role, along with other SOEST personnel, in maintaining and operating the *Lu'ukai*. SOEST researchers will embark on the ROV's first scientific mission on December 2nd to add new capabilities to SOEST's Aloha Cabled Observatory.

For more information on the *Lu'ukai*, visit <http://www.soest.hawaii.edu/UMC/cms/h6000-rov/>.
For more information about the Aloha Cabled Observatory, visit <http://aco-ssds.soest.hawaii.edu/>.

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.

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