

July 22, 2020 | By Lauren Fimbres Wood

Scripps Institution of Oceanography Partners with NOAA for Unmanned Systems Research

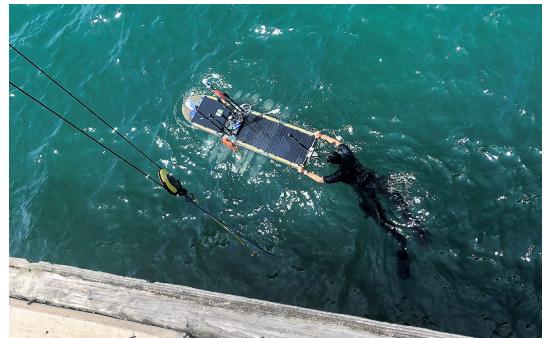
New agreement is to advance unmanned systems research and operations activities for NOAA's Office of Marine and Aviation Operations

NOAA's Office of Marine and Aviation Operations (OMAO) and Scripps Institution of Oceanography at the University of California San Diego are partnering to improve how unmanned systems (UxS) are used to collect important ocean observations and augment NOAA's operational capabilities.

This 10-year agreement provides a framework for Scripps Institution of Oceanography and OMAO's new Unmanned Systems Operations Program to collaborate on specific projects to further UxS research, development and operations.

"The operational experience of NOAA's fleet of ships and aircraft combined with the extensive research and development expertise of Scripps will lead to exciting results in the field of unmanned systems," said retired Navy Rear Adm. Tim Gallaudet, assistant secretary of commerce for oceans and atmosphere and deputy NOAA administrator. "Innovative use of unmanned systems will benefit many NOAA programs—augmenting data collection often at lower cost, increased safety, and reduced risk, especially in remote or extreme environments."

The agreement also helps NOAA meet the objectives of the Commercial Engagement Through Ocean Technology Act of 2018. In Fiscal Year 2020, NOAA received \$12.7 million from Congress to improve and expand UxS operations across the agency, including the creation of the OMAO Unmanned Systems Operations Program — a key goal of NOAA's recently released



An unmanned surface vessel is deployed from Ellen Browning Scripps Memorial Pier.

Unmanned Systems Strategy. This new partnership helps meet the objectives of the Act, which requires NOAA to coordinate research, assess and acquire unmanned marine systems with the U.S. Navy, other federal agencies, industry and academia.

“Unmanned systems and marine robotics are rapidly maturing and are revolutionizing the way we can efficiently collect data in the marine environment,” said Eric Terrill, director of the Coastal Observing Research and Development Center at Scripps and lead scientist for the new partnership. “It is an honor to partner with NOAA on the development, assessment, and transition of these new technologies to serve the national interests of observing the planet, and use Southern California as a testbed for these advancing technologies.”

One of the first projects under this partnership includes developing recommendations for the structure, staffing and training needs of the unmanned maritime systems component of the new OMAO program. The project also includes the design, outfitting and testing of a persistent, unattended unmanned surface vessel with a meteorological and oceanographic data payload to collect operational data.

“This new partnership with Scripps will greatly enhance our ability to transition these technologies into operational platforms that will gather critical environmental data for the nation,” said NOAA Rear Adm. Michael J. Silah, director of the NOAA Commissioned Officer Corps and OMAO.

Terrill’s team has deployed unmanned surface vessel offshore Southern California, collecting observations along the historic routes of the California Cooperative Oceanic Fisheries Investigations (CalCOFI) program, which has studied the marine environment off the coast of California for 70 years. The surface vessels, which can be deployed from Scripps Pier, followed CalCOFI’s Line 90 which runs 200 nautical miles offshore, collecting data on oceanographic and meteorological conditions.

“Innovative new technology to observe the ocean and to gather data is essential to understand and predict the ocean,” said Margaret Leinen, vice chancellor for marine sciences at UC San Diego and director of Scripps Institution of Oceanography. “Unmanned systems allow us to observe the ocean more regularly and at greater scale. We are excited to expand our collaboration with NOAA on rapidly advancing unmanned systems.”

NOAA’s unmanned maritime systems operations will be based in a new facility being built in Gulfport by the Mississippi State Port Authority in partnership with the University of Southern

Mississippi.

MEDIA CONTACT

Lauren Fimbres Wood, 858-534-3626, lmwood@ucsd.edu

Jonathan Shannon, 863-267-1867 jonathan.shannon@noaa.gov

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