



NOAA Uncrewed Systems in Gulfport

Philip Hoffman, NOAA Ocean Exploration



NOAA Ocean Exploration: One Puzzle Piece



Conduct or support ~450 operating mission days at sea each year



Use ship-based sonars to collect ocean floor and water column data



Conduct remotely operated vehicle operations for fine-scale observing and sample collection



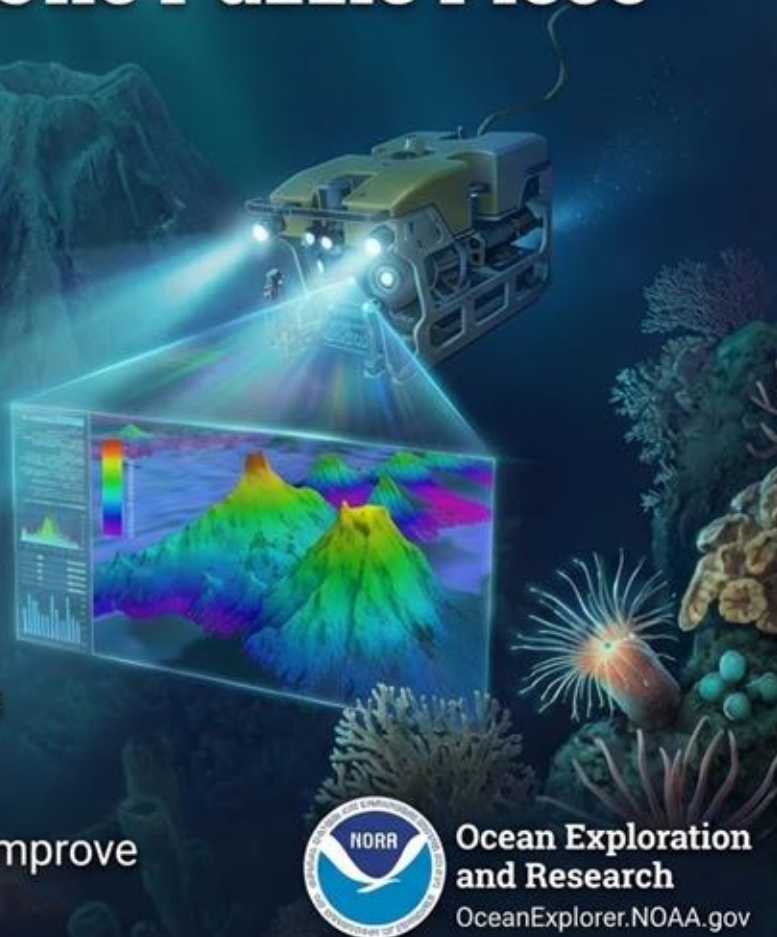
Test and evaluate emerging sensors and technologies to increase pace, scope, and efficiency of exploration



Work with and fund partners and collaborators to do the same



Conduct outreach and education programs to improve public understanding of ocean resources



**Ocean Exploration
and Research**

OceanExplorer.NOAA.gov



Ocean Exploration Cooperative Institute



- Established in May 2019 to support and technologically enhance core NOAA ocean exploration priorities
- Designed to facilitate a long-term collaborative environment between NOAA and the awardees in which broad-based exploration, research, technological, educational, and outreach capabilities can be developed and sustained
- Provides opportunities to advance:
 - Industry partnerships
 - New modes of operation using a variety of platforms and systems
 - Autonomy (vehicles, platforms, processing)



THE
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OF RHODE ISLAND



Woods Hole
Oceanographic
INSTITUTION



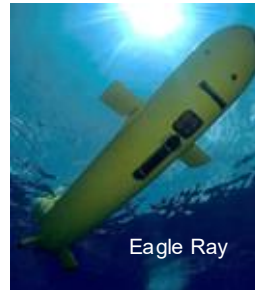
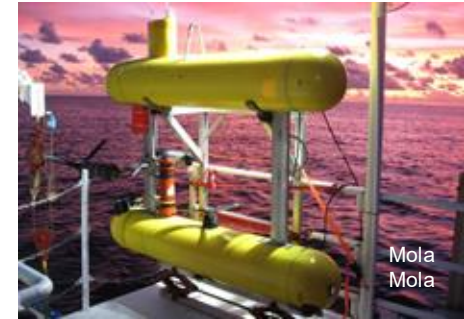
OER Uncrewed Systems in the NOAA UxS Ecosystem

OER Use Cases

OEI platforms

NOPP funded projects

NOFO Projects



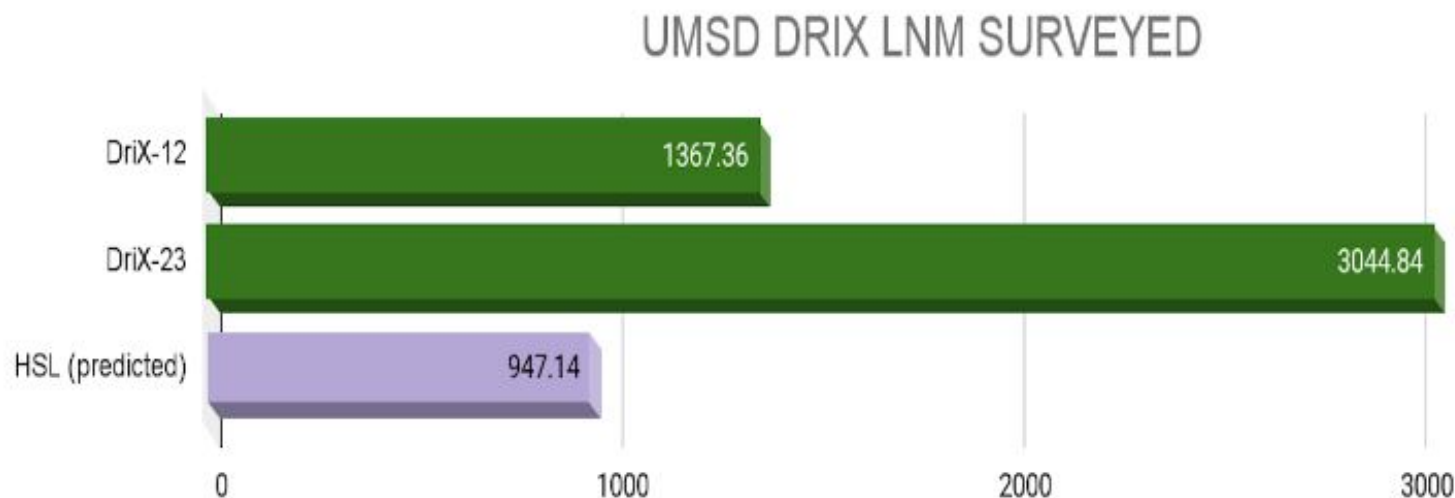
UxS OC DriX Operations 2025

DUAL DRiX ON THOMAS JEFFERSON

- 7 July – 15 September
- Off the coast of Savannah
- Two Remote Operations Centers (ROC)
 - Gulfport MS
 - Thomas Jefferson
 - 12 hr watches
- 48 hour cycle
 - 36 hours survey
 - 12 hour maintenance



DriX Linear Nautical Miles Surveyed



4412 Linear Miles Surveyed

4:1 Improvement in LNM compared to crewed launches

Class B UMS

Chance Maritime Technologies

- LR30 USV
- Contract calls for up to 8 systems
- Will receive 2 systems 2027
- Will receive 2 systems 2028
- Will perform land-based operations with the systems until 2029
- Wicker Center will be the Remote Operations Center for all operations including once integrated into the Class B vessels.
- Class B UMS will be supporting the West Coast
- DriX will be supporting the East Coast



Doing Business with UxS Operations Center (UxSOC)

We offer two different Request for Proposals (RFP) annually (internal).

1. **NOAA Breakthroughs with Uncrewed System Technology.**

This RFP includes approximately \$2.5M for the research, development, evaluation, and advancement of aircraft and marine uncrewed systems, is open to all Line Offices, and must have a NOAA Federal Principal Investigator. Collaboration and partnership with Cooperative Institutes and Academic Institutions is strongly encouraged, as Congressional direction requires that the majority of these funds must go to academic institutions. (3 year funding)



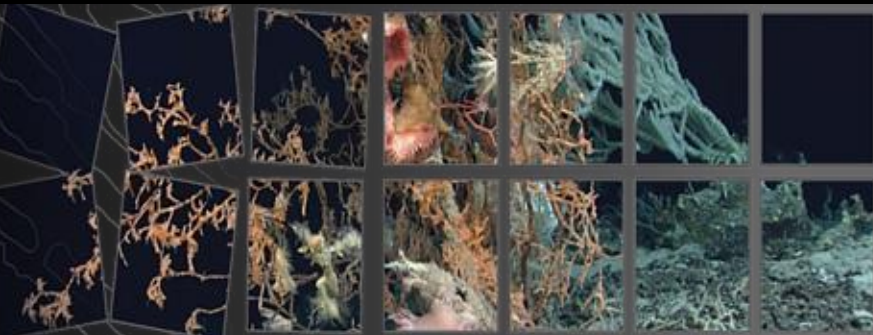
Doing Business with UxS Operations Center (UxSOC)

2. NOAA Uncrewed Marine System (UMS) Services.

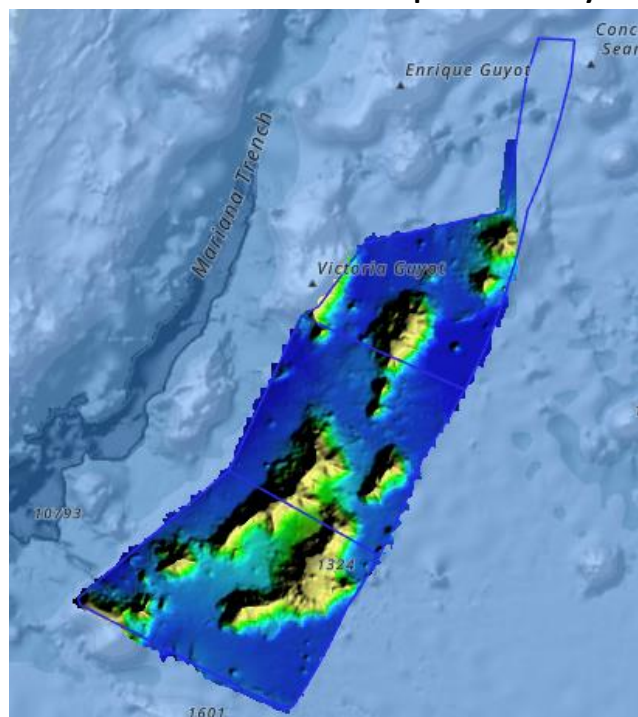
This RFP includes approximately \$11.0M for contracting private sector assets and data buys to execute NOAA missions where the value proposition is highest, per Congressional direction. This solicitation is open to all Line Offices, and submissions must have a NOAA Federal Principal Investigator. Co-Investigators may be Federal, state/territory, or tribal employees, private industry personnel, NOAA Cooperative Institute partners, or other academic personnel. (2 year funding)



Public private partnership mapping



This effort uses a Saildrone Surveyor that is equipped with a Kongsberg EM 304 MKII multibeam mapping system(s) and a suite of oceanographic sensors to perform up to 130 days-at-sea of full ocean depth bathymetric mapping of seafloor in the southeastern Marianas EEZ.



[NOAA OCS West Coast & Pacific Islands Projects Storymap](#)

UxS Industry Engagement

- **The UxS Operations Center hosts a regularly UxS Industry Engagement Forum the last Wednesday of each month (3-4pm EST).**
- **The purpose is the following:**
 - Allow NOAA scientists to understand new industry capabilities
 - Allow industrial partners to hear more about NOAA requirements
 - Allow NOAA and industry to directly engage, with connections made for continued engagement
- <https://www.oma.noaa.gov/uncrewed-systems/external-partners>