

# Joint Hydrographic Center

Larry Mayer and Andy Armstrong

Co-Directors

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HYDROGRAPHIC SERVICES REVIEW PANEL



# JHC ANNUAL REVIEW

## Center for Coastal and Ocean Mapping NOAA/UNH Joint Hydrographic Center

- July 14—virtual with >100 attending
- In extension year for previous grant due to Covid-driven delays
- In first year of new 5-year agreement
- Tracking 48 tasks



# July 15—Presentation for Industrial Partners

Acoustic Imaging Pty Ltd.

AML Oceanographic

Anthropocene Institute

Applanix

AusSeaBed

BAE Systems

BeamworX

Bedrock Ocean Exploration

Chesapeake Technology, Inc.

Clearwater Seafoods Limited

David Evans & Associates, Inc.

Earth Analytic, Inc.

EdgeTech

EIVA Marine Survey Solutions

Environmental Systems Research  
Institute

Euclideon International PTY, Ltd.

Exocetus Autonomous Systems

Farsounder, Inc.

Foreshore Technology, Ltd.

Fugro USA Marine, Inc.

Huntington Ingalls Industries

Hypack, A Xylem Brand

IFremer

IIC Technologies

iXblue SAS

Jasco Applied Sciences (Canada), Ltd.

Kongsberg Underwater Technology, Inc.

Kraken Sonar

L3Harris

Leidos

Marine Advanced Robotics

Mitcham Industries, Inc.

NLA International

Norbit Subsea AS

Ocean Exploration Trust

Ocean High Technology Institute, Inc.

OceanX

PingDSP

Quality Positioning Services B.V.

R2Sonic

Saildrone, Inc.

Sea ID, Ltd.

Sea Machines Robotics

Seismic Micro Technology (SMT)

SevenCs GmbH

SBG Systems

SubCom

SubSeaSail, LLC.

Substructure

TCarta

Teledyne Caris

Teledyne Marine

Teledyne OceanScience

Teledyne Optech

Teledyne-Reson A/S

Tetra Tech Marine Services

ThayerMahan, Inc.

Woolpert, Inc.

## Now at 58

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# UNH Collaboration with Industrial Partner iXblue

- Advanced Autonomy Development
- iXblue setting up a US manufacturing facility at UNH's John Olson Advanced Manufacturing Center



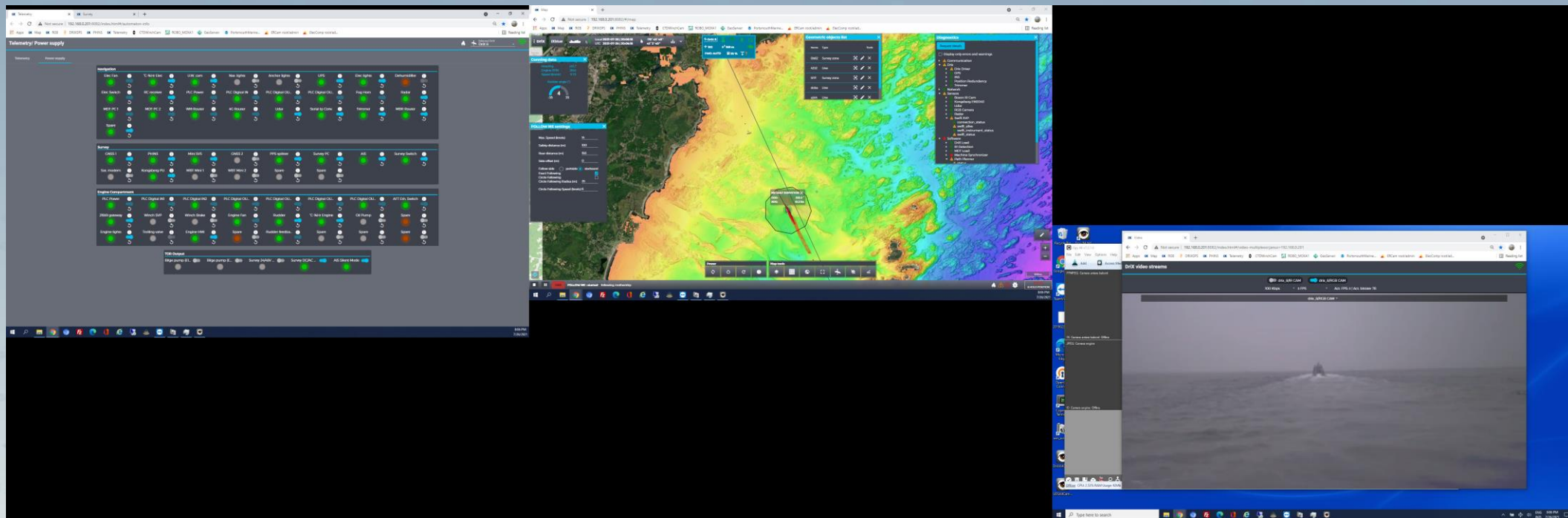
# Uncrewed Surface Vessel R&D





# Uncrewed Surface Vessel R&D

- Autonomy Research
  - Vessel systems
  - Adaptive seafloor coverage
  - Situational awareness



# Uncrewed Surface Vessel R&D

- Collaboration with OCS, NMFS, and OMAO
  - Force multiplier for hydrographic and fisheries surveys
  - Shipborne operations, launch and recovery innovation





# Uncrewed Surface Vessel R&D

- CCOM—OEI collaboration with OAR/Ocean Exploration
  - Cooperative operations with multiple vehicles including AUVs and ROVs





# UNH Summer Undergraduate Internships



## Ocean Mapping



## Summer 2021 Internship Opportunity

Gain experience at sea with a hands-on immersive learning opportunity in ocean mapping: intern with NOAA's Office of Coast Survey and become an active participant in seafloor mapping activities aboard a survey vessel.

Two positions are open for summer 2021 – Apply Now!

**Interns will be trained** aboard a hydrographic ship to stand survey watches, process data, go out on survey launches, and other activities that make them contributing members of the hydrographic survey team. This is an approximately 8 week summer internship, with a specific schedule that will need to be coordinated with the hydrographic ship. Travel expenses and a stipend are provided, sponsored by the UNH Center for Coastal and Ocean Mapping.

**To apply** send a statement of interest (not more than one page) and CV to Prof. Tom Weber at [tom.weber@unh.edu](mailto:tom.weber@unh.edu). Application review will begin on 12 April. This opportunity will remain open until all slots are filled. Once accepted, proof of a negative TB test (available from UNH Health Services) and a health questionnaire must be provided to NOAA OMAO Health Services prior to beginning the program.




**COVID-19 Requirements\*:** Interns will participate in an operational "bubble", wherein once they are in the closed bubble with the crew and other scientists, etc., they are not permitted to leave and reenter without a quarantine period. Bubbles are about 45 days duration, and participation in a bubble includes

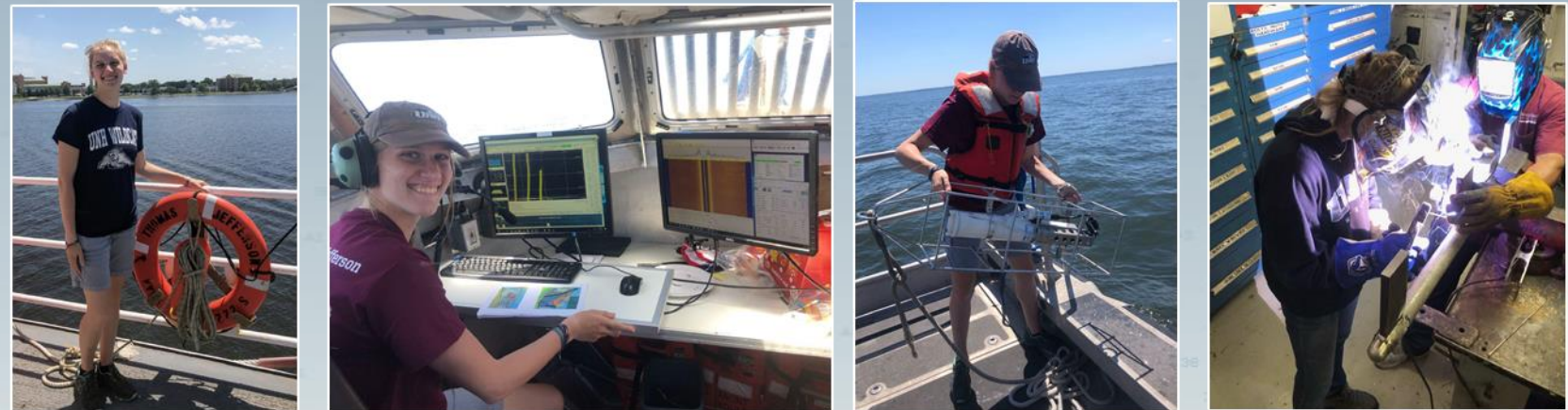
- A 7 Day quarantine at a defined shelter-in-place location (likely the port)
- Proof of a negative COVID test at the end of the 7 day quarantine, prior to embarking on the vessel

\* Adherence to the full set of requirements must be done in coordination with the ship and OMAO Health Services, more details available.

Tom Spiro, BSOE '22, Fairweather + Thunder Bay



Natalie Cooke, BSOE '23, Thomas Jefferson





# Thank you!



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