

UNOLS Community Outreach & Early Career Initiatives

DeSSC New User Program

Goals:

- **Support new users from varying career stages** (including ECRs) to enter or remain in the deep-submergence research community
- **Introduce new users to the community** of deep-submergence operators (NDSF and others) and researchers that use deep-submergence vehicles in their work
- **Training** in topics such as
 - Including deep-submergence vehicles in proposals via shiptime requests
 - Planning deep-submergence related research projects
 - Managing deep-submergence related data

DeSSC New User Program - March 2023

- Held at WHOI for 1.5 days (first time at WHOI) - great participation not just from NDSF leadership, tours of some WHOI facilities
- 23 Participants from 11 institutions around the country,
 - including grad students, postdocs, research staff, and new faculty
- 28 Mentors from NDSF, DeSSC and the deep-submergence community
- Presenters from
 - NDSF
 - Schmidt Ocean Institute
 - NOAA Ocean Exploration
 - Ocean Exploration Trust
 - UNOLS
 - NSF



Upcoming New User Program - 2024

February 17 - 18, 2024 (before the 2024 Ocean Sciences meeting)

Loyola University New Orleans

Applications being accepted now through December 8th

MSROC Early Career Workshop

- When / Where: **Saturday 9 Dec – Golden Gate University**
- Coordinated by:
 - **Lindsay Lowe Worthington / UNM**
 - **Helen Janiszewski / UH**
 - **Andrew Gase / WWU**
 - **Shuoshuo Han / UTIG**
- **Expected Participants 40**
- **Mentors: 8**
- **Topics:**
 - **What is / working with: UNOLS, MSROC, NSF MG&G**
 - **3 Panel Sessions:**
 - **Interacting with facilities - requests, planning, data**
 - **Technical interchange**
 - **“Doing Science” - Proposal prep, at sea stuff, & project management**
 - **Dinner with Feature Speaker**
- **Attend MSROC Meeting Sunday 10 Dec**





2023 UNOLS/AICC Arctic Chief Scientist Training Cruise

March-May virtual meetings • June 2023 transit, R/V Sikuliaq • Early Career Polar Oceanographers

UNOLS Annual Meeting

15 Nov 2023

Dr. Emily Eidam & Dr. Laurie Juranek

Photos by Lloyd Pikok Jr., UIC Science/Battelle

Purpose

- Arctic cruises have traditionally been led by a small subset of PIs
- Recognized barriers for ECR
 - Complex logistics
 - Navigating relationships with communities, vessel operators (and for Healy, military chain of command)
 - Limited vessel access, history of cruises being multi-disciplinary
 - All of the above factors can make managing science teams / interpersonal dynamics particularly challenging
- Training program to build support network and empower ECR to step into leadership roles

THANK YOU

NSF/Frank Rack - funding for this training opportunity & workshop support



UNOLS/AICC, Doug Russell – project development & workshop

R/V Sikuliaq crew and science technicians – supporting the cruise

John Farrell (ARC), Lloyd Pikok (UIC), Karla Heidelberg (USC), Chris Fanshier (OSU) – mentors

Jules Hummon (UH) – UHDAS training

UAF – Doug Baird, Jennifer Elhard, SMC staff – supporting workshop, cruise planning



Recruitment & applicants

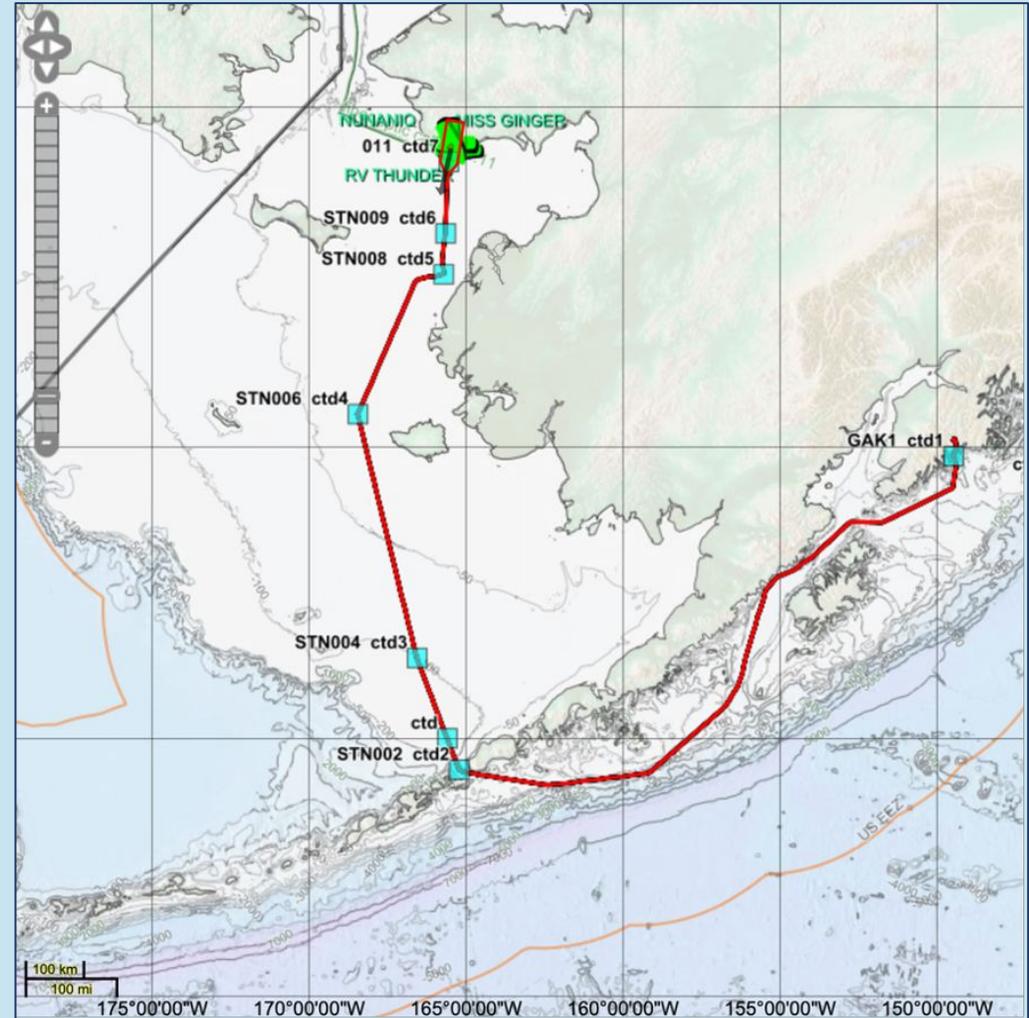
- Applications open Jan 24 – Feb 24 for March-June program
- 53 applicants representing more than 30 universities (and NOAA, EPA, and one AK school)



<https://blogs.oregonstate.edu/arcticcruise>

Schedule of activities

- Virtual, March – May: 4 planning meetings, 1 risk assessment, 1 formal pre-cruise meeting
 - Participants developed a cruise plan
 - Leads uploaded MFP documents
- June 5 – pre-cruise workshop at SMC in Seward
- June 6-12 – transit (intensive schedule of meetings, trainings, and survey activities)
- Post-cruise – follow-up survey; potential data discussion; informal meetup at OSM



Training topics

Pre-cruise workshop

- Doug Baird: Intro to Seward Marine Center and *R/V Sikuliaq*
- Frank Rack: NSF Arctic Logistics
- Doug Russell: Introduction to UNOLS
- Carla Heidelberg: Interpersonal dynamics
- Jules Hummon: UHDAS



Training topics

At sea walkthroughs / discussions

- Science Systems (overboarding, underway / met)
- Ice stations and equipment
- MARSSAM, MGR, and coring equip
- Maintaining an Environment of Respect Aboard Ships (UNOLS MERAS)
- Geopolitics of working in the Arctic
- Community communications and interactions
- PCARs



Cohort Development

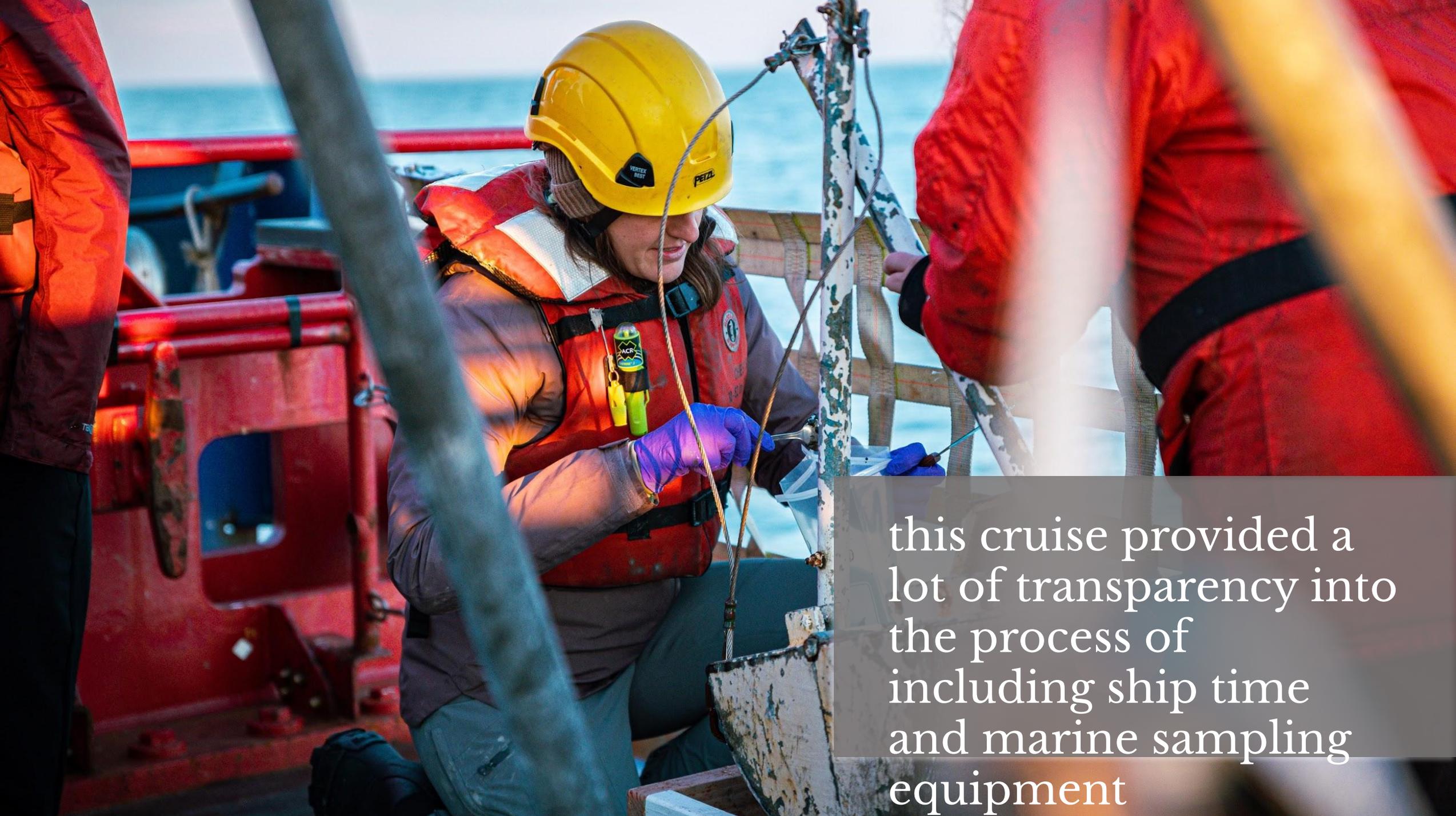
Activities designed to facilitate collaboration and networking

- Daily science meeting/research presentations from participants
- Research collaboration discussion





[T]his experience hit the right balance of informational sessions and time to actively learn skills via being chief scientist/field



this cruise provided a lot of transparency into the process of including ship time and marine sampling equipment

A key takeaway was... deeper understanding of the Sikuliaq's systems and technical considerations you should have when designing a research cruise



“[I] appreciated the time and training from the science techs - their demonstrations were really useful for understanding how the onboard systems operate and will help me in leveraging resources to initiate better science on the SKQ - and other UNOLS vessels





While a breadth of colleagues is to be expected on any research cruise, this was wholly unique in that we were all at similar career stages, eager to share best practices, and willing to think broadly about future

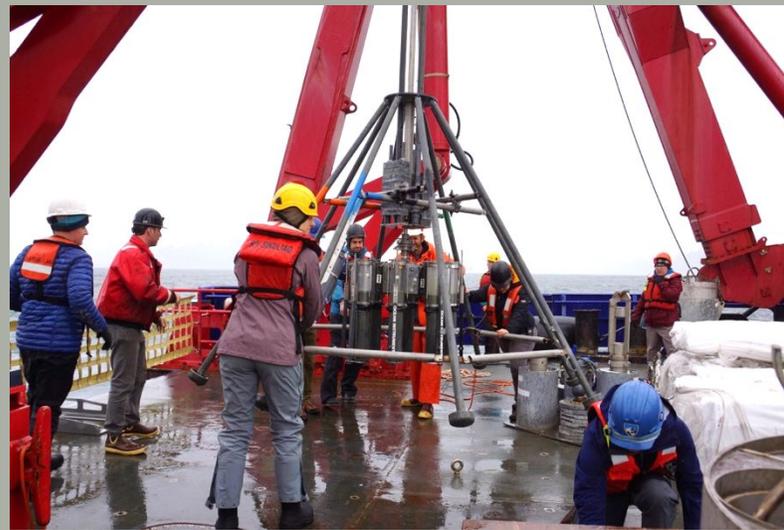


[T]he connections made on this cruise will lead to the submission of multiple proposals and will provide a cohort for networking. I had never worked with anyone on the cruise before and now see them as a core part of my Arctic research network.

I admit to having low expectations going in; the cruise track wasn't targeting areas of my direct research interest. But I was blown away by this experience. It was far more immersive and more collaborative, both with fellow scientists, technicians, and the crew, than a typical research cruise...Ultimately, I'm not sure how previous chief

scientists could feel. This was an amazing experience and I really hope this program

continues. Thank you for this incredible opportunity! I learned a lot at what feels like a critical time in my career development and I highly recommend organizing more of these



Overall it was an excellent experience. I am grateful to NSF, UNOLS, UAF, the organizers, and everyone else who worked hard to make this happen. **THANKS!**



UNOLS-MATE MARINE TECHNICAL INTERNSHIP PROGRAM



**Funded by the National Science Foundation
OCE AWARD 2241369**

**Maria Osiadacz
Program Manager
maria@unols.org**



University-National Oceanographic Laboratory System

**Marine Advanced Technology Education (MATE)
University of Washington, 4300 Roosevelt Way NE, Seattle, WA 98105**

Program Updates

- Transferred successfully to UNOLS Office
- Doubled the placements since last year
- Exploring ways to expand with the increasing demand
- Planning new opportunities for 2024
 - At-sea internships and loading/unloading between cruises
 - Combine sea time with land-based technical support
 - Dockside/shipyard projects with sea trials or no sea time
- Share the announcement; applications are being accepted

www.marinetech.org/internships

- Hosts can contact me to plan new internships

[INTERN REQUEST FORM](#)

Program Improvements

1. Improve resources for Faculty and Advisors
 - Encourage participation of diverse candidates
 - Webinars; online resources
 - Share information about our program
 - Help students develop competitive skills

2. More resources to help interns
 - Increased support before, during and after the internship
 - Career development and networking opportunities
 - Thank you Meegan Corcoran and Emily Shimada!

4. Develop resources and support for Mentors

What do Mentors need to provide adequate support for Interns while meeting shipboard responsibilities?

 - Discussions, Surveys, Site visits
 - Mentor Training and Resource Guide

Thank you TEAM!

- NSF for making this program possible
- UNOLS Team for immense support & assistance
 - Doug, Alice, Bridget, Brandi and Meegan
- Hosts, Marine Technicians and other crew
 - go above and beyond to help interns
 - best trainers; most knowledgeable
 - best professional role models
- Dedicated interns for enthusiasm and hard work
- Introducing the 2023 interns!

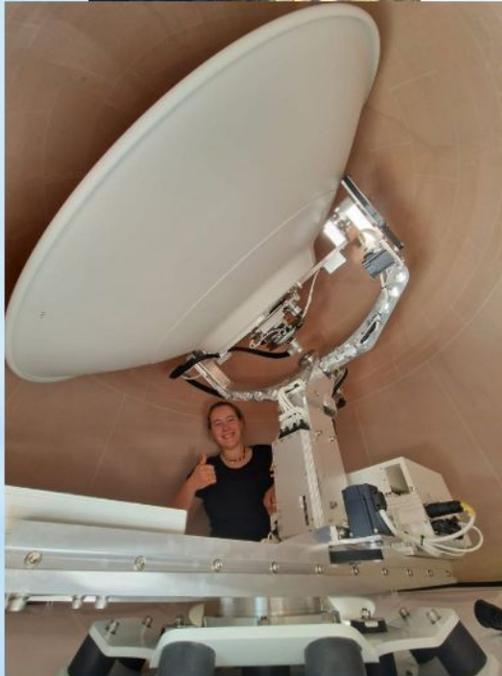
RV Hugh Sharp University of Delaware



Alejandro Dominguez and Jacob StremLOW

RV Atlantic Explorer

Bermuda Institute of Ocean Sciences



Brianna Roberts



**Harpoon
Seabring**

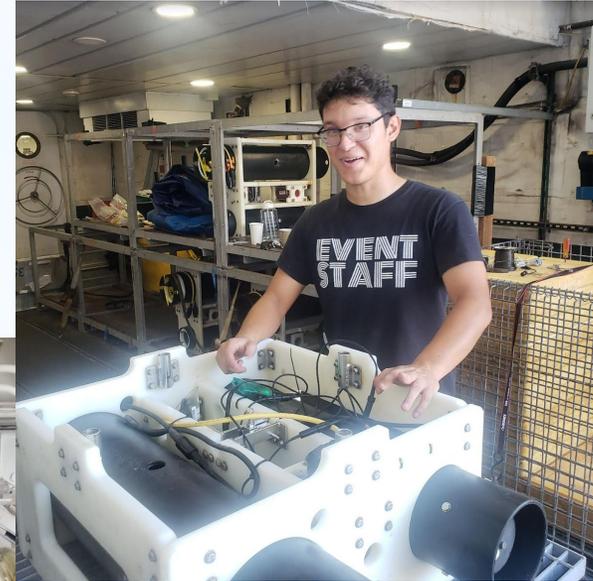


Devin Farnham

RV Marcus Langseth

Lamont-Doherty Earth Observatory

Jared Gursslin
Claire Mayorga
Sara Pierson
Nikko Hernandez



WHOI

National Deep Submergence Facility

Mija Wheeler
Alvin Team
RV Atlantis



Sarah
Sergent
(Long-term)
Jason Team
RV
Thompson



Adam
Ensminger
Jason Team
RV
Thompson



Haley
Holcomb
Sentry Team
RV Atlantis



Hawaii Ocean Time-Series University of Hawaii RV Kilo Moana



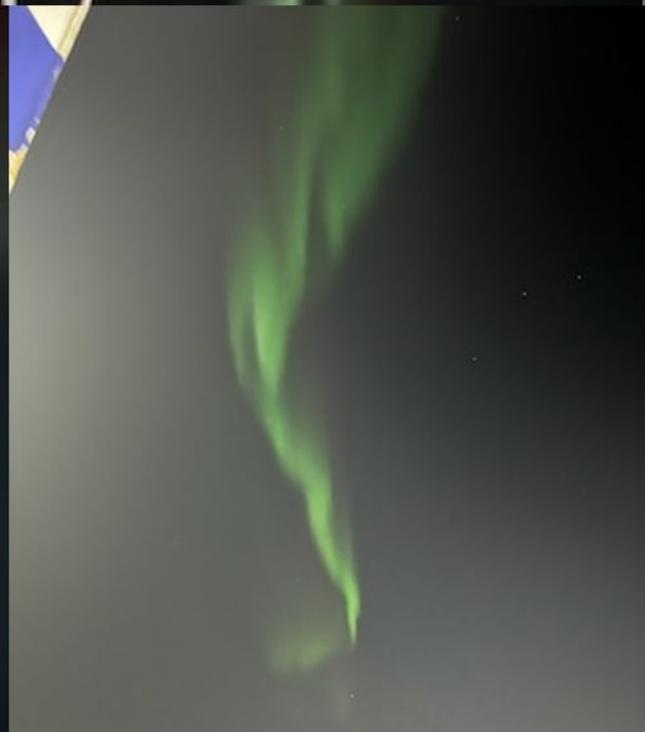
Hunter Adams and Jenn Willson



Cassie Ferrante
RV Neil Armstrong
WHOI

Marisol Figueroa
University of Alaska
Fairbanks
RV Sikuliaq











STEMSEAS Update

Sharon K. Cooper, Lamont Doherty Earth Observatory,

Melanie McCoy, Western Washington University

Emma Robertson, Penn State University

UNOLS Annual Meeting

November 15, 2023



2022/23 Updates

- January: HBCU Faculty partnership development expedition on R/V Neil Armstrong
- June – September: Four student-centered expeditions: 2 on Kilo Moana (new for STEMSEAS) and Endeavor
- Kilo Moana expedition in September focused on Hawaii students and participated in humanitarian aid to Maui
- November: Community College faculty expedition on R/V Thomas Thompson
- Alumni on ONR-sponsored expeditions (Goa and Norway – happening now) and staffing booths/presenting at SACNAS, GSA, AGU and OSM





Do you teach at a 2YC?

STEMSEAS
STUDENT EXPERIENCES ABOARD SHIPS

Do you like adventure?

Hawaii

STEMSEAS is pleased to announce its first expedition for community college faculty
*no prior experience needed

Dates: Nov. 3-11 2023
Where: Seattle to Honolulu
On: R/V Thompson

www.stemseas.com to apply by 9/18/23
This program is funded by an NSF grant. All expenses are paid for accepted participants.

The goals of this expedition are to:

- help community college faculty feel prepared to serve as future STEMSEAS expedition mentors;
- expose faculty to the STEMSEAS experience so they can authentically encourage their students to take advantage of these opportunities
- provide an exciting, unique and potentially transformative professional development opportunity for community college faculty

STEM SEAS
September 11

University-National Oceanographic Laboratory System (UNOLS)
September 11

R/V Kilo Moana, owned by the Office of Naval Research and operated by the University of Hawaii Marine Center, was able to divert into Kahului from an already planned NSF funded STEMSEAS cruise, to deliver much needed generators and other critical equipment to Lahaina. This was a great experience for the STEMSEAS students to be a part of. If you would like to read a blog post from one of the STEMSEAS students about this day read: <https://stemseas.wordpress.com/2023/09/01/detouring-our-expedition-to-help-maui/>.

University of Hawai'i Marine Center STEM SEAS



Looking forward!

- Submitted new proposal for continuation of STEMSEAS for ~4 more years. Awaiting notification.
- Currently identifying potential transits for 2024 schedule
- Looking forward to developing further partnerships



STEM SEAS
June 28 · 🌐

**MINIBOAT TMS SEA CHALLENGER LAUNCH
JUNE 23, 2023**

Click to expand

URI Graduate School of Oceanography
June 26 · 🌐

🔔 Last week, the [#TMSSeaChallenger](#) was launched into the Atlantic Ocean around Cape Canaveral from GSO's [#RVEndeavor!](#) 📺 🌐 📍 Follow along and track the miniboats journey: educationalpassages.org/boats/tmsseachallenger/

The [#miniboat](#) was built by seventh graders at [Frank E. Thompson Middle School](#) in partnership with [University of Rhode Island #URIGSO](#) and [Educational Passages](#). The crew ballasted the keel; sanded the hull and keel; painted the boat; installed sensors; decorated the deck and sail; named the boat; and decided what items would go into the hatch.

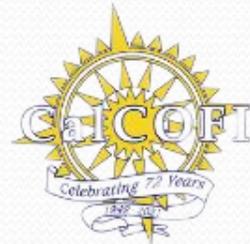
The boat has two GPS systems onboard: a main GPS, which tracks location, and a data reporting GPS that is connected to the sensor package. The sensor system will collect air temperature, water temperature, and orientation. The journey is determined by wind & currents.

Thank you to the [STEM SEAS](#) cohort on [#RVEndeavor](#) for assisting us in a successful launch!

Charting My Course in Polar Oceanography

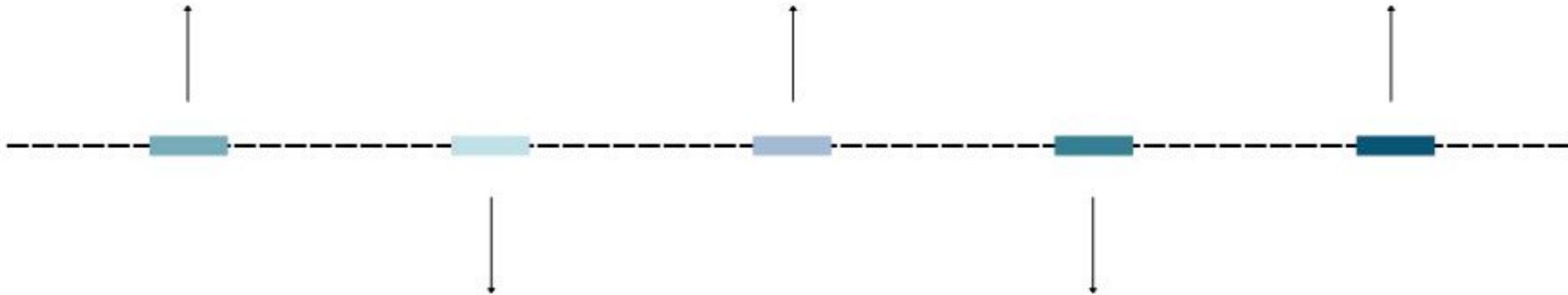


PennState



OCEANX

To STEMSEAS and Beyond



Enhancing Knowledge of the Arabian
Sea Marine environment through
Science and Advanced Training
(EKAMSAT)

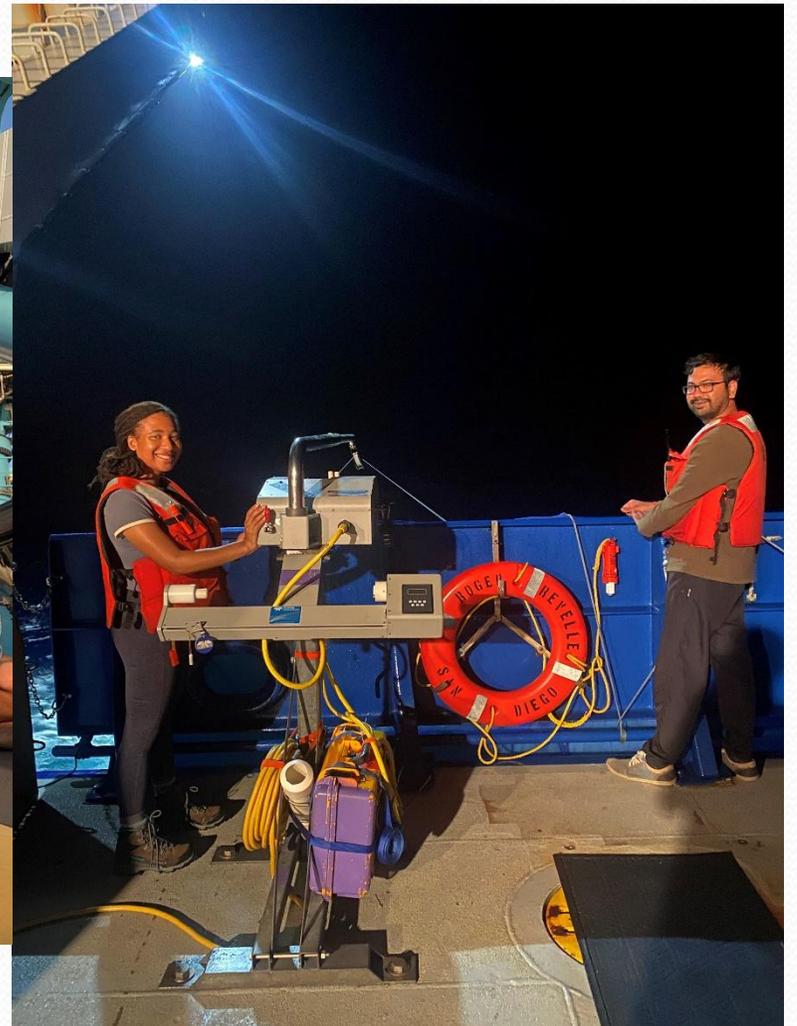


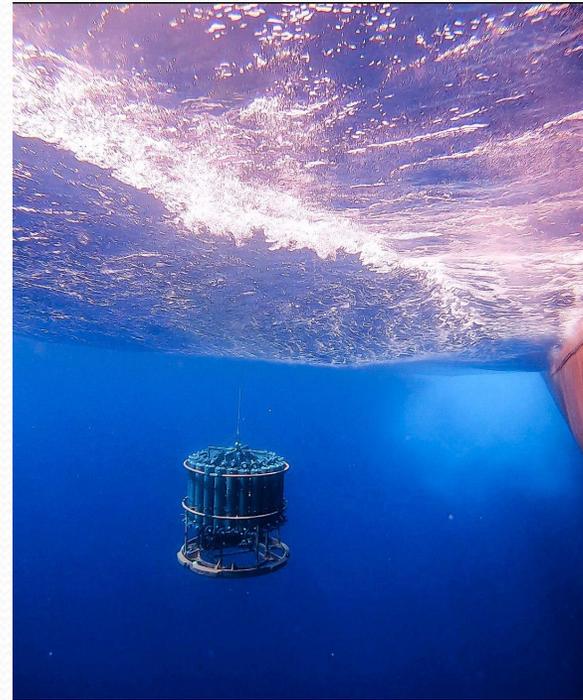


What comes to mind when you hear the word Oceanographer?



What comes to mind when you hear the word Oceanographer?





UNOLS & UNOLS Committee Townhalls at OSM

- UNOLS –

TH33P - **Resources Available Through the UNOLS Community and How to Gain Access to Them**

When: Wednesday 21 February 2024: 12:45 - 13:45 CST

Where: Room: 225-227, Second Floor

- DeSSC

TH53F - **Increasing Accessibility to the Deep Sea Through the Acquisition of a Medium ROV for Regional ARF Vessels**

When: Friday, 23 February 2024: 12:45 - 13:45 CST

Where: Room: 215-216, Second Floor

TH13C - **Connecting Early-Career Deep-Sea Professionals with Opportunities for Training and Networking**

When: Monday, 19 February 2024: 11:45 - 12:45 CST

Where: Room: 210, Second Floor

- SCOAR

TH13D - **Expanding the Reach of the Research Fleet: Autonomous Airborne Systems in Support of Ocean Sciences**

When: Monday, 19 February 2024: 12:45 - 13:45 CST

Where: Room: 225-227, Second Floor

- MERAS

TH53A - **Best practices for successful gender-diverse field expeditions**

When: Friday, 23 February 2024: 11:45 - 12:45 CST

Where: Room: 220-222