NDSF DEIJ Update

Micki Barboni & Anna Michel



Focus on Inspiring, Developing, Recruiting, and Retaining a Diverse Pipeline

Overarching approach:

Share widely that career paths in deep submergence and operations are open to all.

- □ K-12 outreach
 - Live streams with groups like "Exploring by the Seat of Your Pants"
- Undergraduates at NDSF and WHOI Deep Submergence
 - Example success story: Summer 2021, female ocean engineering research student at DSL is returning in 2022 to sail with ROV Jason
- Diversity in vehicles groups (MATE interns, increased diversity in engineers/operators for 2022 cruises)
 - Previous success with Alvin!

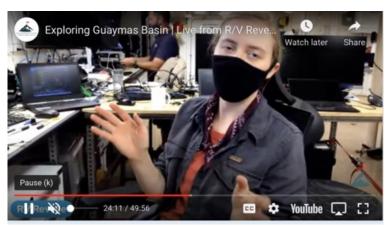






Live Streams from Ships: Expanded bandwidth enables greater inclusion Increases the capacity to reach classrooms, scientists, and engineers on shore

- □ Fall 2021 Live streams from RR2107 (ndsf.whoi.edu)
 - Exploring by the seat of your pants
 - Focus on technology-based careers
 - Reached general public and live links to classrooms in USA & Canada
 - Sentry & Jason team members
 - Live stream from seafloor
 - Live stream hosted on shore at WHOI
 - Focus on marine operations careers (video of interviews of shipboard careers)
- □ Capability to stream ROV Jason video and <u>now AUV Sentry data</u> live to shore → enabling greater inclusion



Amanda Sutherland from the Sentry Team discussing the operation of Sentry and how she became a Roboticist with WHOI during the RR2107 cruise.



Melinda Bahruth, PhD student from the University of Delaware and Stefano Suman from the Sentry team work in real-time with co-PI Chris German during the 4CAST GOFAR project.







Internships

- □ Internships
 - 4 MATE Internships between Jason and Sentry for summer of 2022
 - Interviews are almost complete
 - Partnering with Tuskegee University through OECI
 - Encouraging a diverse team of students to come to WHOI
- Establishing a relationship with the University of Southern Mississippi
 - Plan to provide internship opportunities to Ocean Engineering students in 2023



Challenges	Approaches to Success
 Housing at WHOI is a huge challenge, especially in the summer Housing "crisis" on Cape Cod currently 	 Limits our ability to bring interns to WHOI Looking at alternative housing options Bringing interns to sea
 Mentor availability / Berthing availability 	 Working with ship schedules to identify cruises that can include interns
 Mentorship training and inclusive practices 	 Scheduling appropriate training for mentorship and inclusion Utilizing a cohort model when possible WHOI climate study is on-going
 COVID-19 Impacts 	 Hopeful for 2022 to be smoother 2023 may be able to include more interns as hopefully restrictions decrease

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NDSF BEEF SUBMERGENCE

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Pipeline activities

- □ DeSSC new user program Day 2 Activities (May 2022)
- □ Presentations at conferences (e.g., SWE, SACNAS)
- Development of a collaborative marine technology workshop with local community colleges
 - NDSF, Ship Ops, SSSG, OOI
- Outreach events to K-12 utilizing small ROVs
 - e.g., Girls in Science Camp @ Penikese Island (summer 2022)
- □ Presentation to WHOI Ocean Science Journalism Fellowship program





