

DeSSC report

November, 2018

UNOLS Annual Meeting

- DeSSC membership update
- NDSF vehicle updates
- Other activities



DeSSC Membership

Current members

Amanda Demopoulos (*USGS*)

Dave Emerson (*Bigelow*)

Brian Glazer (*Univ. Hawaii*)

Nick Hayman (*UTIG*)- *left to NSF*

Anna-Louise Reysenbach, Chair (*Portland State U*)

Andrew Thurber (*OSU*)

Cindy Van Dover (*Duke*)

Scott White (*Univ, SC*)

Peter Girguis, (*ex-officio, Harvard*)

Rob Munier (*ex-officio, WHOI*)

Tim Shank (*ex-officio, WHOI*)

Adam Soule (*ex-officio, WHOI*)

Changes to Terms of Reference- Acting Vice Chair (Hayman, now Emerson)

Nominations being sought for one new member

ROV Jason



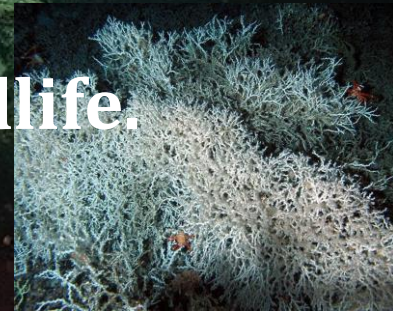
- Humphris expedition (on Thompson)
 - Pre-drilling leg- geological geochemical and microbiological investigations
 - Thompson dirty power issue
 - accomplished goals even with weather days and generator pickup
- Tivey (on Kilo Moana)
 - Endeavor inactive sulfide sampling
- Nooner (on Kilo Moana)
 - JdF Axial volcano pressure measurements
- Lang (on Atlantis)
 - Lost City,
 - "Hydrothermal Organic Geochemistry" sampler

ROV Jason

- Single body operation – developments
 - ROV Engineering Workshop – national & international participation.
 - Resolution of issues around cable torque
- OOI cabled array work (June-Aug) using single body operation (aboard *Melville*)
 - Goals accomplished, 58 dives, 95 instruments/platforms installed or turned, 24 undergrad and grad students involved
- Continued updates to control van; new 4K camera; total overhaul of Virtual Van in progress.

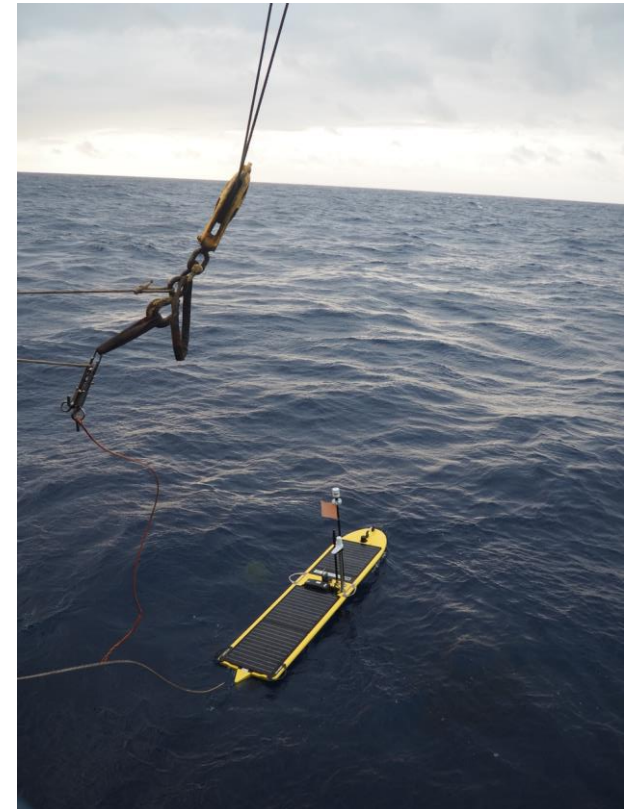
HOV *Alvin*

- Kurz - MAR, 14° N, 'Popping Rocks' Expedition
 - 18 dives, marginal weather w/no loss of dives
 - Cordes (NOAA funded), discovery of largest coral reef off S Carolina, lots of media coverage
 - Gregg- EPR , UNOLS-ECS new user training cruise
 - Dec 22 Open house in San Diego
- * NSF funding secured for 6500m refit; hardware modifications to be done during Atlantis midlife.**



AUV *Sentry*

- Installed new software operating system, no glitches
- Successfully tested use of Waveglider that will allow 'far from ship' ops with other vehicles in the water.
- Evaluation of new multi-beam system for *Sentry* with option for a 'fly-away' system for *Alvin* & *Jason*.



Courtesy Adam Soule, Copyright WHOI

Vehicle Highlights Overview

- AUV Sentry completed its **500th** dive on October 16th this year.
- HOV Alvin will highly likely have its **5000th** dive in this year.
- ROV Jason has now logged more than **1100** dives.

Other activities:

- DeSSC Dec 2018 and New User meeting
 - 51 applicants to new user- see Annette's presentation for details
- Plan for EOS Alvin capability paper, prep community for Alvin coming out of rebuild.
- Early Career Scientist EPR cruise w/HOV Alvin
 - 59 applications!
 - 13 shortlist
 - Series of preparation Webinars

Other activities:

- Special session at AGU
 - “Investigating Mid-Ocean-Ridge Processes with Deep Submergence” Technologies
 - Linked to the early career EPR cruise
- New NDSF website <http://www.whoi.edu/>
- Telepresence Synthesis Paper submission in 2018 (C. German, et al).
- Thanks!