

Research Vessel Technical Enhancement Committee (RVTEC) Meeting

Woods Hole Oceanographic Institution
Redfield Auditorium, WHOI Village Campus
Woods Hole, MA
October 15, 2018

2018 RVTEC Meeting Minutes – provided by Lee Ellett, Scripps Institution of Oceanography

9:08 - Scott called the meeting to order. Announced that this is an abbreviated meeting and turned introductions over to Dave.

9:09 - David welcomed everyone and discussed meeting logistics.

9:15 - All participants introduced themselves

9:20 - NSF Report

Update on NSF status, reviewed the status of last years continuing resolution and eventual budget. He continued to update on 2019. Best hope is for level funding and continued RCRV funding. Recent developments project Langseth will be retired in 2020 and NSF is no longer accepting proposals. The future model is unclear for Marine Seismic. There was a Committee of Visitors made recommendations to the NSF facilities programs. Recommends a tech pool review, a larger technical footprint, merger of OI and SSSE to be called Shipboard Scientific Instrumentation and Equipment and they recommended efforts continue to increase bandwidth. They also recommend efforts continue to background

9:30 - Tim Schnoor

Tim introduced Rob Sparrock who will be taking over for Tim as Program Manager. Tim announced ONR as received their full increment of funding. Dan Fornari thanked ONR for the funding of BGM-3 gyros

9:38 - Scott announced the RVTEC Chair Elect Ballot, and the Liason post

9:40 - UNOLS report. Annette gave the UNOLS report

Major activity was finding the next UNOLS host institution. UW was selected as the next host institution. The transition is underway now with weekly meetings until May 2019. Another goal is to improve life and morale at sea. A survey for morale suggestions was distributed. Early career training cruises have continued, 1-2 per year. A significant effort lead by Dan Fornari on Atlantis using Alvin and Sentry. The Early Career efforts have improved training and engagement of early career users with the Academic research fleet. The post cruise assessment system is also under review for improvement. UNOLS supported the Green Ports and Blue Waters Workshop earlier this year.

9:50 - Mike Prince asked about the UW UNOLS team. Brandi Murphy described that Alice Doyle will transition in the position held by Annette and Brandi will take over for Alice.

9:53 - Jon Alberts RVOC and Safety Committee Report.

Jon thanked RVTEC community for STEMSEAS support. RVOC format has changed to three full days and the Safety Committee meeting is now open. Jon reported on RVOC leadership and Marine Superintendent changes in the fleet. Additional changes include. New 365 days per year with 10 day types. Modified home port day rate in 2019 for Ship Ops and Tech Services (noted by Jim Holik). RVOC 2019 will be hosted at SIO. The RVOC Safety committee has been active and reports to RVOC. The safety committee depends heavily on subject matter experts. There is a waiver process for operations that cannot meet Appendix A. Appendix A made need a revision. A UAS safety policy is in progress and RVSS revisions are in progress. RVSS appendix B is nearing completion

10:06 - Steve Hartz AICC and SCOAR

AICC meeting in January and Telecon in June. He described the post cruise review process. One topic of much discussion is web based GIS Maps server service developed by Steve Roberts. STARC provided a report on Healy operations. AICC has provided input to USCG on new heavy icebreakers. Non interference with subsistence hunted is also a significant topic. SCOAR committee received a number of presentations for operations around the country.

10:12 - Ethan Roth FIC

FIC meets twice per year. Highlights include the following. The Fleet Improvement Plan was last updated in 2015. This is transitions to be a living document that can adapt more quickly to meet science needs. FIC tries to project long term fleet capacity. Updates were made to fleet capacity. Adjustments were made to full optimal year formula and calculation. These changes and clarifying to the agencies how ships are being utilized. Global SMR survey has occurred and is the first step of gathering data to update the Global SMR. Ethan will conduct a survey of the RVTEC community. Request to archive GPS raw phase data at 1 Hz. MSROC responded to the NSF DCL letter regarding Langseth. Advice has been requested on future USAP vessel procurement.

10:30 - Pat Hart updated on MSROC discussions. The committee is attempting to develop a path forward. There are many problems with costs using commercial organizations in working outside of oil explorations areas. Jim Holik commented on the problems with bringing students. Jon Alberts commented that international comments are being considered. Annette thanked Ethan for his FIC support.

10:34 - Brandi Murphy, MERAS Report

Brandi summarized the purpose of improving civility at sea. A new training video is being developed. The first is about shipboard civility, the second is specific to the UNOLS fleet. The third project is collecting ship specific material. The plan is UNOLS will own the videos and they can be shared openly. There are discussions about ceremonies at sea.

11:21 - Scott called the meeting to order and introduced Marc Willis

11:22 - Marc Willis, RCRV Project

Under contract with Gulf Island Shipyard, Houma, LA. There have been several major changes to the design. The volume and size of the vessel have been increased to accommodate all the required equipment. The second operator has been announced as URI. The First vessel has been named as R/V Taani. The transition to operations coordinator, Daryl Swenson has been hired. It is currently contracted as a two vessel build with an option for a third. A third vessel not confirmed.

11:30 - Mike Prince, Global midlife refit

All ONR global vessels are past due for a mid-life refit. There is currently no plan to replace the Global ONR vessels. The vessels are structurally in good condition. With a refit they could see 45 year life span. The core elements to extend the service life are complete repowering, new switchboards, new drives, and address the bow thrusters. The refit will also bring system in line with environmental regulations. Piping and steel plating will also be replaced. Thompson is complete, Revelle is planned, Atlantis is tentative. Specific funding is in the U.S congressional budget. There were many lessons learned from R/V Thompson. These lessons are being applied to avoid delays and additional cost.

Comments: Discussion from each Global operator on activities and challenges of this refit process.

12:09 - Break for Lunch

1:07 - Scott called the meeting to order

1:08 - Alice Doyle, Tech Pool and Tech Exchanges

- 66 cruises supported
- 18 different vessels
- 17 different vessels

Many positive reviews have been received from the operators and users. Feedback has been received from tech pool technicians. Some feedback is positive, flexibility and diversity of work. There are some concerns, is enough work available. Alice will move into Annette's role with the UNOLS office move and Brandi will move into the technical role.

1:15 - Kristin Beem, UNOLS Training Subcommittee

Formed this year in response to technician requests for more professional growth opportunities. There was training cruise on Healy during a 6 day transit cruise. BIOS coordinated a Seabird training session. Currently videotaping several of the INMARTECH sessions for future distribution. Future efforts include a knowledge bank of training and facilitating hands on training opportunities.

Comments: There positive comments of taking advantage of existing cruise. How to handle video. There were past videos that might be available. Hands on training is more useful than video. The focus should be on UNOLS technician needs.

1:30 - Scott announced that Brandi is on four committees and her role will need to be replaced. Brandi spoke about her four committees. Safety, PCAR, MERAS, and Training. The safety committee should be the highest priority.

1:32 - Timothy Twomey, FBB/FX Program

The satcom program includes FBB and FX systems. There are 80 systems total, the FBB OOI installations are smaller FBB 250. Communicate shipyard layouts so service can be suspended. Pam Clark has been designated as the satcom program Manager. FBB is per byte use. Fx data is unlimited data with a MIR and CIR. The data rate on the Fx can be increased for short duration needs. Several examples of C-Band and FX installations across the fleet were given. WHOI will submit a proposal to continue management of the secondary satcoms program.

Questions: Is there a plan for data increase? It is a matter of technology and costs. Short term plan is to expand bandwidth as needed. FBB bandwidth should be monitored. Contact WHOI if an FX system is desired. Pam Clark is the contact. There is discussion of flat panel technology.

1:55 - Kevin Walsh, HiSeasNet

HiSeasNet Status update. An overview of the HSN support team and description of the program. A ticket tracking system is in place for matrixed support. Slack is used for communication and situational awareness. There are a number of desired improvements across the fleet.

2:09 - John Haverlack, SatNAG update

Update on current activities. SatNAG presents and UNOLS and RVOC. A pilot program has been underway. Cyberoam metrics are being collected. Working on revised website. The pilot program sets general guidelines that enhance network stability. Future goals include identify future hardware, Testing, refining of metrics, define a deployment strategy.

Questions: Lots of discussion about the requirements for next generation devices. There are mandated security requirements coming into effect.

2:26 - Brian Guest, East Coast Winch Pool

An overview of the current operations. Requests for equipment have increased about 30% in the last year. A new system was added in the last year. A small .322 hawbolt system. It is available to view this week. There was a MacArtney system was modified this year for Glacier work in Antarctica this year.

2:32 - Aaron Davis, West Coast Winch Pool

A description of the design and operation of the winch pool was provided. Spooling services can be provided in the winch pool proposal with advance notice. An overview of the inventory was provided. TSE winches should not be used to handle anchors. Tension guidelines have been added to the MCD.

2:35 - Break

3:00 - Meeting called to order

3:01 - Jules Hummon

Jules provided an overview of the UHDAS ADCP program. The UHDAS Concept is Acquisition, Monitoring, Processing, and Stewardship. UHDAS systems started on UNOLS vessels. The system is now on many vessels. The new developments are moving to Xubuntu 18.04, switching to Python3, and improvements to ticketing system. Jules outlined problems and solutions for ADCP throughout the fleet this year.

Questions: Discussion of bottom paint, triggering and heading devices.

3:25 - Aaron Davis, Appendix B

Update on Appendix B status. There are no MCDs required, they are optional. Manuals for handling gear are required. Testing intervals are once every 5 years. Operators must have training. The requirements mirror what is in 46 CFR.

3:27 Suzanne O'Hara - R2R update

An update and review of the R2R program was provided. Data is often not sent in routinely throughout the year. The data should be sent in as often as possible. Standard metadata for each cruise data set is required. An XML format is being developed. Documentation of time sources is being researched, vessels that reported timeservers have been documented as R2R metadata. R2R group will be available during INMARTECH for metadata.

3:40 - Nandita Sarkar - MATE Intern Program

Nandita provided a review and update on the MATE Internship program. Additional funding has been requested for some shore based housing during internship. Short term internships are designed for those exploring career options. Long term internship is designed for those that just need a little experience to round out their resume and enter the workforce.

3:58 - Emily Shimada - Mate Internship

Emily gave a review of her internship and skills that were acquired. She discussed projects and documentation that she worked on.

4:02 - Ted Colburn, NSF Ship Inspection Program

Ted provided an overview of the ship inspection program. He commented on four areas of Appendix A that need to be addressed. The extenuated circumstances plan, defining error

bounds for tensiometers, securing the deck during operations, and formal training requirements. Appendix B comment, the wire rope should be the weak link.

4:06 - Scott provided closing remarks. Announced Tech Managers Session. Annette announced Jules Hummon is the RVTEC chair-elect.