Minutes provided by Lee Ellett, RVTEC Chair-Elect

Tuesday October 24, 2017
Inn on Lake Superior, Northern Lights Ballroom

Scott called the meeting to order
Annette gave an orientation of the facility
The participant list is included as (Appendix I)

Dr. Robert Sterner, Director of the Large Lakes Observatory
   Dr. Sterner provided welcome remarks and insight into resources of the great lakes.
Dr. Jay Austin - Science Talk - Unintentional (but useful) measurements of ice keel thickness in Lake Superior (Appendix II)

Introductions for all participants was then conducted

Icebreaker Session Order of Presentations: (Appendix III)
University of Miami – Walton Smith - Don Cucchiara
   Discussed operations in and around Cuba, their year of operations and a SBE 9 troubleshooting example.
University of Washington
   Clifford A. Barnes – Patrick A'Hearn
      Not many operational problems.
   Thomas G. Thompson – Patrick A'Hearn
      Discussion of shipyard status.
   Rachel Carson - Patrick A'Hearn
      Replacement for the Clifford A. Barnes.
Bermuda Institute of Ocean Sciences– Atlantic Explorer - Mason Schettig
   Engine overall in shipyard. Example of broken OFP mooring and recovery challenges.
Woods Hole Oceanographic Institution - Cris Seaton & Joseph McCabe - Atlantis - Dave Fisichella
   A fairly active year, more general-purpose cruises due to a light Alvin schedule.
   Problems with operations out of Mexico. Acquisition of liquid nitrogen generator.
   Neil Armstrong - Amy Simoneau
      Example of challenges using a Sonardyne USBL system with an ROV.
University of Minnesota – R/V Kingfisher - Aaron Lingwall
Discussion of multibeam operations on Jenny Lake in the Grand Tetons.
University of Rhode Island – Endeavor – Lynne Butler
.322 wire with extremely rusty layers in the middle of the cable.
University of Delaware – Hugh R. Sharp - KG Fairbarn
Problem with ROV recovery where the lifting bail broke, luckily over water.
Recovery was challenging.
Scripps Institution of Oceanography
R/V Sally Ride - Keith Shadle
Operational challenges of bringing a new vessel into service.
R/V Roger Revelle - Keith Shadle
` Busy schedule unique overboarding scenarios
R/P FLIP - Keith Shadle
Busy schedule, MRU on vessel that flips
R/V R.G Sproul - Keith Shadle
Busy schedule, short notice cruises
LUMCON - R/V Pelican - Alex Ren
Example of Oceaneering ROV use, deployment of elevator basket and ROV using two wires in the water.

Break

Oregon State University - R/V Oceanus - Andrew Woogen
Busy shipyard, replacement of acquisition systems, use of a UAV, deep water camera housing.
Lamont-Doherty Earth Observatory - R/V Marcus G. Langseth - Jeff Rupert
Motivational challenges with a light schedule. Acquisition system challenges and conducting general purpose operations. Lively discussion around the future of Langseth. Discussion of New Zealand protocols and UH protocols surrounding regulations of cleaning of vessel hulls.
University of Alaska Fairbanks - R/V Sikuliaq - Steven Hartz
Discussion of R/V Sikuliaq underway data acquisition modular design.
UNOLS Tech Pool - Elizabeth Ricci
Outlined challenges of working on several UNOLS vessels.
NOAA Vessels - Patrick Murphy
Discussion of challenges of moving the North Atlantic Bottom Trawl Survey from the Bigelow to the Pisces.
USGS - Rachel Marcuson
The challenge of wiring a sparker ground for 220V single phase power on a ship with a floating ground.
STARC - USCGC Healy - Brett Hembrough
Discussion of using an EM122 to locate a wreck in shallow water.
USCG C4IT - USCGC Healy - Adam Stenseth
USAP Vessels - Ross Hein
R/V Nathaniel B Palmer
Challenge of sea ice formation cruise.
R/V Laurence M Gould
Addition of Fleet Express system and challenging shipyard.
Schmidt Ocean Institute - R/V Falkor - Stian Alessandrini
Shipyard challenges, lost cruises. Transducer replacement. ROV operations.

Stony Brook University - R/V Seawolf - Tom Wilson
Description of challenges associated with an atmospheric radar installation on shore.

University of New Hampshire - R/V Gulf Surveyor - Daniel Tauriello
Summary of most recent hydrographic field season. Taking students to sea for hydrographic surveys. Problems with UPS systems on a small vessel.

University of Hawaii – Kilo Moana – Scott Ferguson
Description of EM122 noise. Analyzed power quality during troubleshooting and found a conflict with 38kHz ADCP.

Agency Reports

NSF - Jim Holik
See Presentation (Appendix IV)

ONR - Tim Schnoor
See Presentation (Appendix V)

NOAA - CDR Patrick Murphy
See Presentation (Appendix VI)

USCG - David Forcucci
See Presentation (Appendix VII)

INMARTECH brainstorming session - UNOLS
See Presentation (Appendix VIII)
Annette discussed the 2018 INMARTECH meeting. She announced the location at WHOI, combined with a 1 day RVTEC meeting. A strawman schedule was suggested. She asked for suggestions and volunteers to develop the meeting agenda. This topic will be revisited on Thursday.

Introduction of Friday Basic Network Training - Laura Stolp & Britton Anderson
Laura gave an introduction to the Friday training. Following the training a hands-on session will follow.
Britton introduced himself to the group and discussed his experience bringing Sikuliaq online. He has taught networking courses at UAF and is looking forward to training with this group.
Introduction of afternoon sessions
Scott introduced the afternoon sessions
• R2R Session
• Cybersecurity with SATNAG
• Sonar Synchronization Panel
• Internet Use Policy Panel
Karen Stocks gave an overview of the R2R panel. (Appendix IX)
Annette provided an update to the logistics for the afternoon of the meeting.

Wednesday October 24, 2017
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8:38AM - Scott called the meeting to order. There were several meeting logistics updates prior to starting the morning presentations

Marine Technology Summit
An update an invitation on MTS Summit on Nov 6, 2017 was provided by Mike Einhorn.

Summary of Tuesday Breakout Sessions
Karen Stocks updated on the R2R activities session.
• Q/C of CTD data
• Q/C of echosounder data
• Best practice recommendations
• Trial fluorometer Q/C

Jules Hummon updated on the sonar syncing session. There was discussion of K-Sync given by Ethan Roth and a discussion of ADCP interference given by Jules Hummon.

Dave Fisichella updated on bringing shore equipment to sea. At the session, there was a discussion of how to determine requirements for equipment prior to going to sea during pre-cruise planning

John Haverlack updated on the SatNAG cybersecurity session. How does cybersecurity apply to the marine environment? It is a complex issue. Do we want a fleet effort to be consistent and proactive with this issue?

Ken Feldman updated on the SatNAG internet use policy session. The session discussed this broad subject and how a policy is being assembled. A draft policy will be implemented on SatNAG member institution vessels.

MATE Update - Nandita Sarkar, MATE and Amanda Dostie, MATE
See Presentation. (Appendix X)
An overview of the MATE program and an update on current activities. She was followed by Amanda Dostie who provided an update on her activities as a long-term MATE intern. (Appendix XI)

Ship/Shore Communications

HiSeasNet - Kevin Walsh, SIO
See Presentation (Appendix XII)
An overview of HiSeasNet activities and an update of operations

Fleet Express - Al Suchy, WHOI
See Presentation (Appendix XIII)
An overview and update on the FBB and Fx program.

SATNAG Report - Jon Meyer, SIO
See Presentation (Appendix XIV)
An introduction of the Satellite Network Advisory Group. An update was provided on the year activities.

Technician Pool/Technician Exchanges - Alice Doyle, UNOLS and Debz DeFreitas, TAMU
See Presentations (Appendix XV)
An update was provided on the current status and activities of the UNOLS Tech Pool and Tech Exchanges.

JMS Inspection Report - Ted Colburn, JMS
See Presentation (Appendix XVI)
This presentation is an update on the NSF Ship inspection program.

Break

MISO Pre-Trip Prevention Collar - Dan Fornari, WHOI
Dan called in to present on the pre-trip collar system that has been developed. Miso camera system on multicores have been providing real-time images on UNOLS cable for several years via a datalink. In March-April of 2017 a pre-trip prevention collar was developed to work with the MISO multicore camera video. A video was shown to demonstrate the system. (Appendix XVII)

R2R Report - Suzanne O’Hara, LDEO
See Presentation (Appendix XVIII)
Status report from R2R group.

HiSeasNet Pacific Bandwidth Expansion Project - Kevin Walsh, SIO
See Presentation (Appendix XIX)
Kevin presented on the 2017 IS-18 Pacific bandwidth expansion.

**UNOLS Wire Pool and Synthetic Rope** - Rick Trask, WHOI
See Presentation (Appendix XX)
Information on the UNOLS Wire Pool and status of synthetic rope testing and use.

**OCRV Coring System** - Jim Broda, WHOI
See Presentation (Appendix XXI)
Update on the OCRV Coring system.

**Wednesday October 24, 2017**
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0832 - Scott called the meeting to order. There were several announcements before stating the morning presentations.

Don Cucchiara from University of Miami announced they have decommissioned a vessel and have surplus equipment free of charge, your institution pays for shipping. The list will be sent to the RVTEC Managers list.

**UNOLS East Coast Winch Pool** - Josh Eaton
See Presentation (Appendix XXII)
An update on the current activities of the UNOLS East Coast Winch Pool.

**UNOLS West Coast Winch Pool** - Aaron Davis
See Presentation (Appendix XXIII)
An update of current West Coast Winch Pool.

**UNOLS Reports**
**UNOLS** - Debbie Steinberg
See Presentation (Appendix XXIV)
Update on UNOLS Office re-compete, committee for Maintaining a Respectful Environment on Ships (MERAS), and the 2017-2018 goals.

**FIC** - Annette DeSilva
See Presentation (Appendix XXV)
An update on FIC activities including the appointment of Ethan Roth from UAF as the RVTEC liaison.

**RVOC and Safety Committee** - Scott Ferguson
Bill Fanning was unable to attend this meeting. Aaron Davis
AICC - Steve Hartz
See Presentation (Appendix XXVI)
The update of current activities included

SCOAR - Steve Hartz
See Presentation (Appendix XXVII)
Update SCOAR activities and an update on UAS policies.

RCRV - Jim Holik
See Presentation (Appendix XXVIII)
Update on the status of regional class research vessels

Appendix B Update - Aaron Davis
Aaron provided an update on RVSS Appendix B. UNOLS council cancelled Appendix B. Jon Alberts is working on a document to capture Subchapter U requirements.

ADCP - Jules Hummon
See Presentation (Appendix XXIX)
An update was provided on the status the UHDAS systems supporting ADCP data collection.

Logistics White Paper, Foreign Port and Foreign Clearances - Alice Doyle
See Presentation (Appendix XXX)
Introduction to recent discussions and creation of a white paper describing best practices on foreign logistics and cruise planning.

Break

MOCNESS Rebuild update – Lee Ellett
See Presentation (Appendix XXXI)

Datapresence from RCRVs - Chris Romsos
See Presentation (Appendix XXXII)
Chris provided an update on data services design that is ongoing for the RCRV project.

Questions
Toby - How is design being developed by users and how much by design team.
Chris - By going to sea and getting input from users.
Marc - This is not being developed in a bubble.
Chris - The program has science oversight.
Jim - This is forward thinking but will need to look at development of a complex system versus operational funding realities.

**Fantastic Techs and where to find them - Discussion - Moderator, Tom Wilson**
See Presentation (Appendix XXXIII)

Tom introduced the topic of what make a good tech, how to find them, and how to keep them.

Comments on what makes a great tech
Marc Willis - Engineers that could use tools. Seagoing experience not required. Raw skills and interest is a requirement.
Jules - Sailboat owners and SEA students are good options
Scott - Some of the most robust techs he had observed were out of the fisheries observer program.
Marc - Always ask what are you going to hire and what are you going to train.
Tom - Related a sea story of
Ross - Deck work can be a scary and difficult.
Nandita - A big part of her job is choosing through these skills set to determine the best candidates.
Ken - A mindset of solving problems is key.

Comments on How to Find Them
Tom - Hiring a good tech when you find them.
Dave - Ask the tech pool who is looking for a position
Nandita - Community college students are a good resource.
Tom - Public outreach is a mechanism to attract young people.

Comments How to keep and grow them
Marc - Travel, Toys, and Training, Treatment
Jules - Drive a forklift
Brett - Training can be difficult with busy schedules
Jim - Training funds are the first to be cut
Brett - Should be on top of work
Ross - Onsite training
Tom - Conferences and he recommends buying an Arduino kits to give to techs
Lynn - Having engaging conversations with techs
Steve - Let techs take ownership of projects
Marc - recommends the workboat show
Jules - Have an Arduino competition
NOAA - There is a hard ceiling for some positions, Survey techs
Dave - We could do a better job with fleetwide institution training
Many agree that standardized training would be a good thing
Tech exchanges are also a good resource
Advertisements in veteran publications
Underwater intervention is another good conference
Annette - UNOLS meets at many institutions. Have technicians attend UNOLS meetings
Scott - What is valuable about this community is learning where to good techs may be

Annette - Appreciates all the INMARTECH suggestions.

Meeting Adjourned