Agenda
Research Vessel Technical Enhancement Committee (RVTEC) Meeting
Inn on Lake Superior
350 Canal Park Drive, Duluth, Minnesota 55812
October 24-26, 2017

Monday October 23, 2017
6:00-7:00pm   Pre-meeting Check-in at the Inn on Lake Superior.

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

8:00am   **Meeting Check-in**, coffee, and informal discussion

8:30am   **Meeting Call to Order** (Scott Ferguson, RVTEC Chair)
- Introductory Remarks
- Welcome Remarks (UMD LLO) – Dr. Robert Sterner, Director of the Large Lakes Observatory
- Science Talk: *Unintentional (but useful) measurements of ice keel thickness in Lake Superior* - Dr. Jay Austin, Large Lakes Observatory
- Accept minutes from 2016 meeting

9:00am   **RVTEC Participant Introductions**

9:15am   **Icebreaker Session** - Tell us about this year's technical/operational crisis and how you resolved it. A representative from each of the following vessels is requested to make a presentation. Presentations should be limited to 5 min with 1 slide per ship. Please consider having a junior member of your group make the presentation. Acceptable slide formats are PPT and PDF.

Order of Presentations:
University of Miami – *Walton Smith* – Don Cucchiara
University of Washington:
- *Clifford A. Barnes* – Patrick A'Hearn
- *Thomas G. Thompson* – Patrick A'Hearn
- Rachel Carson - Patrick A'Hearn
Bermuda Institute of Ocean Sciences– *Atlantic Explorer* - Mason Schettig
Woods Hole Oceanographic Institution:
- *Atlantis* - David Fisichella
- *Neil Armstrong* - Amy Simoneau
University of Minnesota – *Blue Heron* - Aaron Lingwall
University of Rhode Island – *Endeavor* – Lynn Butler
University of Delaware – *Hugh R. Sharp* - Kenneth Fairbarn

10:05am   ***Break***

10:20am   **Icebreaker Session** (cont.)
               Scripps Institution of Oceanography:
                    - *Robert Gordon Sproul* - Keith Shadle
                    - *Sally Ride* - Keith Shadle
                    - *Roger Revelle* - Keith Shadle
                    - *FLIP* - Keith Shadle
               LUMCON – *Pelican* – Alex Ren
               Oregon State University – *Oceanus* – Andrew Woogen
               Lamont-Doherty Earth Observatory – *Marcus G. Langseth*
               University of Alaska, Fairbanks – *Sikuliaq* – Steven Hartz
               Tech Pool – Elizabeth Ricci
               NOAA Vessels – Patrick Murphy
               USGS - Rachel Marcuson
               STARC – *Healy* - Brett Hembrough
               USCG – *Healy* – Adam Stenseth
               USAP Vessels - Andy Nunn, Ross Hein, and Scott Walker
                    - *Nathaniel B. Palmer*
                    - *Laurence M Gould*
               Schmidt Ocean Institute - *Falkor* - Stian Alesandrini
               Stony Brook University – *Seawolf* – Tom Wilson
               University of New Hampshire - RV *Gulf Surveyor* - Daniel Tauriello

11:15 am   **Agency Reports**
               -   NSF – Jim Holik
               -   ONR – Tim Schnoor
               -   NOAA – LCDR Patrick Murphy
               -   USCG – David Forcucci

11:55am   **INMARTECH 2018 Brainstorming Sessio**n - Annette DeSilva & Alice
               Doyle/UNOLS

12:10pm   **Introduction of Friday Basic Network Training** - Britten Anderson/UAF and
               Laura Stolp/WHOI

12:20pm   **Introduction of afternoon sessions**

12:30pm   *Lunch*

1:30 pm   **Afternoon Sessions**:

	Northern Lights 1	Copper Harbor Room	Rock Harbor Room
1:30pm – 3:00pm	R2R: new activities and request for input *presented by* Karen Stocks / SIO R2R	Cyber Security - Tips for Techs *presented by* The SatNAG	Bringing Shore Equipment to Sea - What works and what doesn't *presented by* David Fisichella / WHOI
3:00-3:20pm	Break		
3:20pm – 4:50pm	Running multiple echosounders using external trigger synchronization *presented by* Ethan Roth/UAF & Julia Hummon/UH	Internet Use Policy *presented by* The SatNAG	

5:30 - 7:30pm *RVTEC Reception hosted by UMD, LLO at The Boat Club 600 E Superior St, Duluth, MN 55802*

Wednesday, October 25, 2017
Inn on Lake Superior, Northern Lights Ballroom

8:00am   **Coffee and informal discussion**

8:30am   **Meeting Day-2 Call to Order**

8:35am   **Summary of Tuesday Sessions**

8:45am   **MATE update** – Nandita Sarkar, MATE program
-     MATE/UNOLS Long Term Intern Report - Amanda Dostie

9:00am   **Ship/Shore Communications**
-     HiSeasNet – Kevin Walsh, SIO HSN
-     Fleet Express – Al Suchy, WHOI

9:20am   **SATNAG report** - The SatNAG

9:35am   **Tech Pool/Tech Exchanges** – Alice Doyle, UNOLS

9:50am   **JMS Inspection Report** – Ted Colburn, JMS

10:10am   ***Break***

10:30am   **MISO Update and Video –** Dan Fornari (via WebEx)

10:45am   **R2R Report** – Suzanne O'Hara, LDEO R2R

11:00am   **HSN Pacific Bandwidth Expansion Project** - Kevin Walsh, SIO HSN

11:15am   **Synthetic Rope follow-up** – Rick Trask, WHOI

11:35am   **OCRV Coring System** – Jim Broda, WHOI

12:15pm **Introduction of afternoon sessions**

12:25pm *Lunch*

1:30pm **Breakout Sessions and Ship Tours** - At this point the meeting will be split into 2 groups (A&B). While at the US Army Corp of Engineer Pier (901 Minnesota Ave), the group will rotate between touring the R/V *Blue Heron,* EPA's *Lake Explorer II,* and the Warehouse Demo/Poster Session.

	US Army Corp of Engineer Pier (901 Minnesota Ave)	Inn on Lake Superior		
	Ships and Warehouse	**Copper Harbor Room**	**Rock Harbor Room**	**Eagle Harbor Room**
	Group A (split into 3 groups and rotate through the following sessions)	**Group B**		
1:30pm – 2:00 pm	R/V *Blue Heron*	Syncthing – An open source way to sync bw ship and shore *presented by* John Haverlack/ UAF	The Wire Pool Database *presented by* Rick Trask / WHOI	Manager's Meeting
2:00pm – 2:30 pm	EPA's *Lake Explorer II*			
2:30pm – 3:00 pm	Warehouse Demo/Poster Session			
3:00pm – 3:20pm	*Break*			
	Group B (split into 3 groups and rotate through the following sessions)	**Group A**		
3:20pm – 3:50 pm	R/V *Blue Heron*	Unmanned Marine Vehicle Systems *presented by* Andrew Woogen/ OSU	NOAA SCS Q&A *presented by* John Katebini / NOAA	
3:50pm – 4:20 pm	EPA's *Lake Explorer II*			
4:20pm – 4:50 pm	Warehouse Demo/Poster Session			

6:30pm *RVTEC Dinner at Pier B 800 W Railroad St, Duluth, MN 55802*

Thursday, October 26, 2017
Inn on Lake Superior, Northern Lights Ballroom

8:00am   **Coffee and informal discussion**

8:30am   **Meeting Day-3 call to order**

8:35am   **Winch Pool Updates**
– Joshua Eaton – East Coast Winch Pool
– Aaron Davis, West Coast Winch Pool

8:55am   **UNOLS Reports**
- UNOLS – Debbie Steinberg, UNOLS Chair
- FIC – Annette DeSilva, UNOLS
- RVOC and Safety Committee
- AICC – Steven Hartz, UAF
- SCOAR – Steve Hartz, UAF
- RCRV – Jim Holik, NSF

9:20am   **Appendix B Update** - Aaron Davis, SIO Winch Pool

9:35am   **ADCP Update** – Julia Hummon, UH Currents

9:55am   **Logistics White Paper Foreign Ports and Foreign Clearances** – Alice Doyle, UNOLS

10:10am   *Break*

10:30am   **MOCNESS Rebuild updates** - Lee Ellett, SIO

10:50am   **Datapresence from the RCRVs** - Chris Romsos, OSU RCRV

11:00am   **Fantastic Techs and where to find them** - Discussion - Moderator - Tom Wilson, Stony Brook University

11:50am   **INMARTECH 2018** – Annette DeSilva, UNOLS & David Fisichella, WHOI

11:55am   **Introduction of afternoon sessions**

12:00pm   *Lunch*

1:30pm   **Breakout Sessions**

	Northern Lights 1	Copper Harbor Room	Eagle Harbor Room
1:30pm – 3:00pm	MAC *presented by* Paul Johnson / UNH/MAC	UHDAS *presented by* Julia Hummon / UH	SATNAG Committee Mtg
3:00-3:20pm	Break		
3:20pm – 4:50pm	Winch Monitoring Systems Q&A *presented by* Josh Eaton/WHOI Aaron Davis / SIO Ethan Roth / UAF	UHDAS (cont.)	SATNAG Committee Mtg

4:45pm   *Meeting Adjourned*

Friday, October 27, 2017
Basic Network Training
lead by
Britten Anderson, Lead Network Communications Specialist and Adjunct Instructor at the
University of Alaska, Fairbanks

0800 - Lecture and Q&A (a break will be inserted)
　　　　Topics to be covered
- The OSI Model - https://en.wikipedia.org/wiki/OSI_model
- Basic IP addressing; subnets, networks, VLANs CIDR and IPV4 v IPV6
- Network address translation (NAT)
- The function of routers and firewalls
- DNS
- DHCP
- Clients, Servers and Services
- Hardware
  - Switches
  - Routers
  - Cat 5 vs Cat 6 vs Cat 7 vs multimode vs singlemode
  - Crossover cables
- Usage monitoring
- Impacts of activities such as auto-updates
- Multiple incoming data channels (HSN, FBB, cellular modem)
  - Emphasis on how that multichannel access affects the computers aboard ship and how it affects inbound access to the ship's network
  - Cyberoam functions
  - Peplink functions

1200 Lunch on own

1300 Optional Hands-On lab session