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 Tauringelo

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

11:55am **INMARTECH 2018 Brainstorming Session** - 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:**

<table>
<thead>
<tr>
<th>Time</th>
<th>Northern Lights 1</th>
<th>Copper Harbor Room</th>
<th>Rock Harbor Room</th>
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</thead>
<tbody>
<tr>
<td>1:30pm – 3:00pm</td>
<td>R2R: new activities and request for input&lt;br&gt;presented by Karen Stocks / SIO R2R</td>
<td>Cyber Security - Tips for Techs&lt;br&gt;presented by The SatNAG</td>
<td>Bringing Shore Equipment to Sea - What works and what doesn’t&lt;br&gt;presented by David Fisichella / WHOI</td>
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<td>3:00-3:20pm</td>
<td>Break</td>
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<td>3:20pm – 4:50pm</td>
<td>Running multiple&lt;br&gt;echosounders using external&lt;br&gt;trigger synchronization&lt;br&gt;presented by Ethan Roth/UAF &amp; Julia Hummon/UH</td>
<td>Internet Use Policy&lt;br&gt;presented by The SatNAG</td>
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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.

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<td>R/V <em>Blue Heron</em></td>
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<td>EPA’s <em>Lake Explorer II</em></td>
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<td>4:20pm – 4:50pm</td>
<td>Warehouse Demo/Poster Session</td>
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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**

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<td>1:30pm – 3:00pm</td>
<td>MAC presented by Paul Johnson / UNH/MAC</td>
<td>UHDAS presented by Julia Hummon / UH</td>
<td>SATNAG Committee Mtg</td>
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<td>3:00-3:20pm</td>
<td>Break</td>
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<td>3:20pm – 4:50pm</td>
<td>Winch Monitoring Systems Q&amp;A presented by Josh Eaton/WHOI, Aaron Davis / SIO, Ethan Roth / UAF</td>
<td>UHDAS (cont.)</td>
<td>SATNAG Committee Mtg</td>
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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
    o Switches
    o Routers
      o Cat 5 vs Cat 6 vs Cat 7 vs multimode vs singlemode
    o Crossover cables
  · Usage monitoring
  · Impacts of activities such as auto-updates
  · Multiple incoming data channels (HSN, FBB, cellular modem)
    o Emphasis on how that multichannel access affects the computers aboard ship and how it affects inbound access to the ship's network
    o Cyberoam functions
    o Peplink functions

1200 Lunch on own

1300 Optional Hands-On lab session