2014 Research Vessel Operators Committee (RVOC) Meeting April 23-25, 2014

University of Georgia-Skidaway Institute of Oceanography, Savannah, Georgia

Executive Summary

The UNOLS Research Vessel Operator's committee held their annual meeting on April 23 to 25, 2014 at the University of Georgia's Skidaway Institute of Oceanography in Savannah, Georgia. The meeting was well attended.

Welcome Remarks

RVOC Chair, Capt. Doug Russell/UW opened the meeting with welcome and introductions.

Dr. James Sanders/Executive Director of the Skidaway Institute of Oceanography welcomed the group and encouraged all of us to enjoy their campus and a visit to the R/V Savannah.

Ms. Hope Moorer/ Program Manager for Navigation Improvements Projects for the Georgia She gave a talk on the Georgia ports and the growth they have experienced in recent years. GPA oversees 4 major terminals along Georgia Coast which includes Savannah, Brunswick East River Terminal and Garden City Terminal. Savannah is the fourth fastest growing port in the US, servicing ships coming through the Panama and Suez canals. In CY 2013 they handled 48% imports and 52 % exports. Success of the port is due in part by close access to interstates 95 and 16, unrivalled rail connectivity, and extensive warehouse capabilities. Savannah is undergoing an extensive harbor expansion project which will be to dredge the ship channels from 42ft to 49 ft. depth. This is a 650 million dollar project to start in 2015 and to be completed in 2017.

Old Business:

The minutes from the 2013 RVOC meeting were accepted without changes.

The compliance date of Appendix B which had been set for 7/15/2014 and has been extended by the Safety Committee to 7/15/2015.

Group Purchase updates of Shipboard Scientific Support Equipment items:

The project for the development of Maximum Capability Document is still being run by Duke. There are still some remaining funds which will be used for the MCD's on the Endeavor and the Oceanus

On the Desh-5 Winch upgrade project- Doug Russell/UW reported the project to do a winch upgrade, install rend & recover, add new overhead level winds and develop maximum capability documents has made good progress. The R/V Atlantis, R/V Revelle, , and R/V Langseth have all had work completed. Work still to be completed for R/V Thompson and R/V Atlantic Explorer.

On the electronic chart display and information system (ECDIS), Al Suchy/WHOI reported that JRC units have been ordered for Revelle, Atlantis, Kilo Moana, Thompson, and Langseth with delivery expected in CY 2014. The Armstrong and the Ride will also get JRC units.

New Business

The ballot for the election of a new RVOC- Chair Elect were distributed and were collected at the break. Tom Glennon/Director of Marine Operations has been elected as RVOC Chair-elect for a three year term.

Committee and Liaison Reports

Safety Committee Report –

Dan Oliver/UAF as RVOC Safety Committee Chair provided a report on the Safety Committee Meeting held on April 22, 2014, prior to the start of the RVOC meeting.

We have added the managers of the Winch and Wire Pool as new members to the Safety Committee. This is Joshua Eaton/WHOI, Aaron Davis/SIO and Rick Trask/WHOI.

Dan recommended that the RVOC members read the Coast Guard report on the grounding of the Kulluk. There are some valuable lessons to be learned from this.

RVSS- A revised and updated 10th edition will be finished and distributed late summer 2014. We are just waiting on updates to Appendix B which are underway. A section on unmanned aerial vehicles and the new wire maintenance policy will be added.

The compliance date for Appendix B has been changed to 7/15/2015.

The Safety Committee issued an advisory regarding the deployment and recovery of science packages which are powered up prior to launch and during the recovery process.

The Safety Committee also shared information on a new fire retardant system called DSPA 5. This is a Dry Sprinkler Powder Aerosol which is non-toxic and lowers the temperature of the compartment prior to entry. This might be a good product for spaces without a fixed firefighting system.

http://www.afg5.com/dspa5.htm

Policy Change- We discussed the need to add a policy regarding the use of cell phones while on watch. This is not currently specifically addressed in the RVSS.

New Revised chapter on the Chartering on Non-UNOLS vessels by PI who are using federal funds to conduct research. Dennis Nixon reiterated that each marine superintendent will be held responsible top insure that PI's that receive federal funding must charter vessels that meet or exceed the RVSS. This is a difficult policy to enforce as some of these vessels are chartered without the knowledge or consent of the marine office. The university purchase order process should be able to help here.

UNOLS Update

Jon Alberts presented the UNOLS report. The UNOLS Office will start their second five year term at the Univ. of RI on May 1, 2014. There have been no staff changes. Current UNOLS Chair is Peter Ortner/RSMAS. He will be succeeded by Chris Measures/Univ. of Hawaii when Peter's term finishes in October 2014. The UNOLS Office is working on a new website which will be launched in the spring of 2014. The Fleet Improvement Committee continues to work on a revised fleet improvement plan which will be an online document.

Recent activities and current membership of the UNOLS standing committees was presented.

The new secure version of the schedules was discussed and it appears to be working however there is still concern that it limits collaboration.

Green Boats and Blue Waters- URI held a second workshop to further discuss environmentally sustainable practices for the fleet and our ports.

Ship Scheduling Committee Report

Jon Alberts gave the UNOLS Ship Scheduling Committee report. Doug Ricketts/Univ. of Minnesota is now chair of the committee, succeeding Liz Brenner/Scripps Institution of Oceanography. Richard Behn/RSMAS is now the chair-elect.

In 2013 the fleet had 3343 days on the final ship schedules and at present in 2014 there are 3357 days scheduled. The fleet utilization trend shows a downward trend from 2005 to 2014. Flat budgets and rising fuel, insurance, salaries, and other costs are impacting the ship schedules.

For 2015, we held a meeting of the global, ocean and intermediate class of ships in La Jolla, CA on January 30-31, 2014. The NSF May Panels are scheduled for May 19-23, 2014 and hopefully funding decisions will be available soon after.

Fleet Improvement Committee Report

Al Suchy/WHOI presented the FIC report for Clare Reimers/OSU, who is the FIC Chair. Some of the issues that FIC is working on include:

- Service Life End Dates- Keeping the service life dates current based on ship condition and utilization is an important function of the FIC as it relates to fleet replacement efforts.
- Coastal/Local Class- FIC proposes no changes in UNOLS charter or push to add a new vessel to this class.
- Optimal Operating Ranges- Clare appreciates all the feedback sent by the marine superintendents to her request for data. After the operators are given an opportunity to review and refine numbers, the FIC will propose to Council that we adopt a new metric for gauging fleet utilization.
- Fleet Improvement Plan- The FIC is drafting a revised web-based Fleet Improvement Plan, (FIP). In the new FIP there will be a table which lists design characteristics of each vessel to compare with science mission requirements. FIC hopes to have this finished for the October 2014 FIC meeting.
- Regional Class Research Vessels- A subcommittee is looking at an NSF letter on recommendations for fleet size in respect to building of three new regional class vessels.

Al Suchy/WHOI provided the report on the Alvin upgrade. They have completed Phase I and Alvin is back in service, although not certified to full depth of 4500 meters. They have the certification to dive to 3000 meters, but did not have enough time to certify to 4500 meters, however WHOI is working to schedule these dives now with NAVSEA. They have a busy schedule in 2014, but less in 2015.

Phase II will be to certify Alvin to 6500 meters, but there isn't a timetable for this yet.

RVTEC

Joshua Eaton/WHOI gave the report from the tech group. Some of the issues they are working on are the wire lube policy, Appendix A & B, development of maximum capability documents and testing in lieu of engineering. They are also working on ship to shore communication issues and usage, a cruise planning application and how to handle and/or archive the data collected for Appendix A.

Agency Reports

NSF – Rose Dufour/NSF gave the NSF report. In CY 2013 the globals accounted for 50 % of the NSF ship ops budget. In CY 2014, the globals used 69 % of the ship ops budget. The total NSF budget is 64 million for ship ops. The Power Point slides in the appendices shows the breakdown of costs that make up the day rates.

NSF/OCE is currently at 90 % of the CY 2012 budget. There is a question how they will bridge the CY 2014 budget and what is in store for CY 2015.

NSF continues to fund early career cruises in CY 2014 with cruises on the R/V Point Sur, Blue Heron, Hugh Sharp and the Atlantic Explorer.

ONR & IWG-FI – Tim Schnoor/ONR outlined recent ONR activities. In 2014, the ONR owned ships, (Atlantis, Knorr, Thompson, Revelle, Melville, & Kilo Moana) have over 1400 days of operations, of which ONR is funding ~ 400 days. In 2013 ONR funded 594 days of operations on the entire UNOLS fleet.

In 2014 the AGOR ships Knorr will be retired in December of 2014 and Melville will be retired in October 2014.

Other Navy assets which are utilized by UNOLS include CIRPAS in Monterey, CA which operate aircraft for scientific studies. ONR also owns Alvin.

In San Diego, FLIP is stationed. FLIP has provided service for 51 years to Navy and ONR. In recent years it has only been used 2-3 weeks per year.

Interagency Working Group on Facilities and Infrastructure

This is a subcommittee made up of representatives from the federal agencies including NSF, ONR, NOAA, USCG, BOEM, EPA and UNOLS which work to improve efficiencies across the federal fleet of research vessels. The IWG-FI wrote the latest report on Federal Oceanographic Fleet Status Report, dated May 24, 2013. Currently the IWG-FI is working on fleet scheduling, performance metrics.

NSF Report on the Regional Class Research Vessel RCRV Update and Operations.

Matt Hawkins/NSF gave the update presentation on the regional class research vessels. The OSU group has successfully completed two conceptual design review milestones and the project now advances to the preliminary design phase. The next meeting will be August 2014. Three vessels are currently still planned and the actual number built will depend on science utilization and available funding. NSF sent a letter to the UNOLS- FIC Chair, Clare Reimers in March 2014 requesting community concurrence and independent verification of OCE assumptions. The operator selection will take place when the number of vessels to be built is known. Anticipated solicitation is planned for CY 2017. NSF plans to fund these through the MREFC process with a request for CY 2017, to be submitted in the 2015 budget request. If all goes as planned, the first RCRV would come online in CY 2020. The goal of NSF is to have fewer vessels, more capable vessels and at the same cost.

OSU Report on Regional Class Research Vessels

Demian Bailey/OSU provided the report on their progress to date on the RCRV. The approach OSU is taking is to increase data output from these vessels while reducing the cost of that data. The key features of the current design are making use of lessons learned, with a focus on habitability and stability. The current plan is to make these variable frequency direct drive with a Schottel STP Twin Prop Z drive. They will have a large back deck capable of carrying vans. Other features will include telepresence capable, multibeam EM 302, ADCP's mounted in a retractable centerboard and be fully compliant with Appendix B. In their efforts to build a "green" vessel, they plan to have an optimized hull form, variable speed power generation and increased fuel efficiency.

NOAA/OMAO Report

Tracy Miller/NOAA provided the report with an overview of the current NOAA fleet, currently at 18 ships and \sim 2700 operating days. The newest vessel is the Reuben Lasker, a new NOAA fishery survey vessel. Recent NOAA cruises have been (6) EPA ocean dumping site surveys. The Delaware II and the Miller Freeman were sold in 2013. Ron Brown will be working in the Pacific into 2016.

Recent success includes a new online ship time request and scheduling system and improving the safety culture. Also the Fleet Recapitalization Plan (2012 to 2017) is under review at OMB. Recent challenges include crew staffing, especially engineers and maintenance repair contract performance issues which lead to lost days. The TAO mooring arrays haven't been fully maintained.

State Department/ Office of Ocean & Polar Affairs-

Liz Tirpak from the State Dept. provided a report on recent activities for the marine scientific research clearance process as it relates to UNOLS ship. Last year they processed 214 research requests and only had three denials. There continues to be a problem with post cruise reporting requirements and at present there are three-hundred outstanding reports. This can and does impact the success of future research requests. Some countries will require past due reports are submitted before a new clearance will be processed. More and more countries are requiring the application packets be translated into their language.

Liz reminded RVOC that if equipment testing outside of 12 nm, then you don't need permission. If within 12 miles, permission must be requested. The next version of RATS is coming in late August 2014.

Special Reports

UNOLS Wire Pool, Cable Lubrication, Use of Synthetics

Rick Trask/WHOI led off this session as the UNOLS Wire Pool Manager. He is in the 3rd year of his current 5 year grant. This past year they purchased 25 reels of wire and sent out to UNOLS ship operators 27 reels. They also tested 201 wire rope samples.

Wire Maintenance & Lubrication Policy- Rick has recently sent to RVOC and RVTEC the draft wire lubrication and maintenance policy requesting feedback. On the wire disposal, Rick reminded RVOC that the operators need approval to scrap a wire pool length of wire/cable. It continues to be a challenge to find wire recycling facilities.

Rick provided an update on synthetics for the fleet. He is currently working with PhillyStran to develop a 9/16th wire rope substitute. This will be torque-balanced, 36 strain design, aramid core with a jacket, abrasion resistant and capable of taking fittings for terminations and be hand-spliced. Manufacturers still need to test breaking strain, rotation characteristics, and tension cycling.

East Coast Winch Pool

Joshua Eaton/WHOI is the East Coast Winch Pool manager and they are in the 5th year of a 5-year cooperative agreement. The primary work is to provide tech support to the fleet which includes:

Providing portable winches to NSF/ONR/NOAA supported cruises

- Spooling wires.
- Attending and presenting at UNOLS Meetings such as ROVC & RVTEC
- Active Heave Compensation
- Appendix B
- Creation of Maximum capability documents
- Provide subject matter expert advice on new winch specifications, heavy and medium lift winches, and special purposes winches.

The winch pool has some new assets. A Jason LARS winch built by Rapp-Hydema had some issues on the first cruise on the R/V Thompson, but Rapp is working through these issues.

There are some changes in use of the wire spoolers as the use is expected to increase with the new lubrication policy.

West Coast Winch Pool

Aaron Davis/SIO is the West Coast Winch Pool Manager at 20 % time. Aaron has similar tasking to Joshua Eaton and has the following assets:

- Dynacon traction winch- DTW- This is available in 2014
- Dynacon CTD Winch- Awaiting refurbishment and new flag block
- (3) TSE Mooring winches
- (3) sets of fiber optic slip rings.
- (5) Spoolers- some from 1960's vintage.

The cost to maintain winches is covered by day rate for winches. The logistics such as shipping and crane lifts are covered for an NSF funded PI.

Current challenges include:

- Attaining Appendix A & B compliance for pooled assets and NSF funded operations.
- Scheduling and Prioritizing services
- Specifying and purchasing assets, (winches, spoolers)
- Maintaining compliance
- Maintenance requirements

Current Projects include:

- RVSS Appendix B revisions
- R/V New Horizon J-Frame Maximum capability document.
- R/P Flip instrument boom
- Planning future projects on the Atlantis, New Horizon, Revelle.

Post Cruise Assessment Report- (PCAR)

Caitlin Mandel/UNOLS provided the report on the UNOLS post cruise assessment reporting program with statistics highlighting submission rates, areas of concerns, and safety records. The PCAR's are now integrated in the Ship Time Request System, (STRS which pre-populates information directly from the ship schedules. We continue to remind both operators and the principal investigators to submit these reports in a timely way.

Schmidt Ocean Institute

Eric King/SIO gave the update from Schmidt and news that the R/V Falkor is currently in the Pacific for the next few years. Highlights from their program included 12 months of operations, with ROV testing, deployment of Nereus in the Cayman Trough. They are building a new docking head for launch and recovery of Nereus, which can be loaned to other ships. Also working on a new docking head for ROPOS for the Falkor A-frame. Some ship improvements include a storage deck which replaced the heli-deck to be able to carry (4) 20 ft ISO Containers. A new scientific winch for 10,000 meters of .322 EM cable, a new generator (400 KW/ 500 KVA) is planned and a new matrix signal converter for telepresence is planned.

Operations include in 2014 (9) cruises, for 239 op days. In 2015 they estimate (9) cruises for 248 op days. For 2016 they have 81 proposals totaling 1059 days and they expect to fund 6-7 cruises. They are planning a science verification cruise with a new 11,000 meter HROV in March of 2016.

Challenges, Opportunities, and Partnerships

Crew Retention and Data management continues to be a challenge. Telepresence provides opportunities and they have been active participants in ocean science conferences including MTS, AGU, and Ocean Sciences 2014 in HI. They have started a Jamestown Naval Architect ship inspection program and are participating in the UNOLS multibeam advisory committee (MAC).

Ship Inspection Program

Blake Powell/JMS reported on the NSF funded ship inspection program with the purpose of assuring the capabilities of the UNOLS fleet and that they meet material readiness and that

they are following good safety practices. Blake reported on several areas they are working on and which needs further attention.

Appendix A- They are still some UNOLS ships which are not fully compliant in regards to sheaves, rollers, and recording of cast tensions. Some ships aren't logging max tension and some sheaves, rollers, fairleads are undersized. Safe Working Load documentation is missing in some cases.

Appendix B- The fleet is moving forward, but has a long way to go. Steps required include developing a test plan/procedure with a line diagram. Need to test all components of a system as it is intended to be used.

Science Safety- In this area, JMS recommends formally designating a safety officer and start this process before getting underway. Safety program should make the best use of RVOC Training manuals and video. Program also needs to highlight ship specific safety items, which includes shipboard policies on sexual harassment, drugs and alcohol, environment, etc. This needs to be reinforced in the cruise planning manuals, ship web sites, and posted in placards in labs and staterooms.

Lithium Batteries- JMS recommends to develop a policy on how to handle usage, storage, fire.

Fuel Efficiency and Shipboard Energy Efficiency Management— Need a fuel and energy usage plan for a methodical approach to using fuel as effectively as possible.

Shipyard Documentation- JMS continues to see a lack of post-shipyard documentation.

Americans with Disability Act- ADA- The ships need to incorporate more ADA awareness, improve accessibility to science berthing, and improve lighting.

Human Factors- Labeling is important on all instrumentation. Each control and control setting should be clearly visible with adequate lighting.

Hydraulic Hoses- Should maintain a hose log and have a tag on each hose with date, pressure rating, hose serial number.

Drills- All drills should be as realistic as possible. For Man-Over-Board drills, use a realistic item.

US Coast Guard Marine Safety Alerts- JMS recommends ship operators subscribe to USCG Marine Safety Alerts such as 03-13B- on Surge Protectors and 03-12 on Mustang PFD's.

West Coast Van Pools

Stewart Lamerdin/OSU presented the report on the West Coast Van Pool. Stewart detailed the vans under his purview and shared some of the challenges in maintaining this asset which includes exterior maintenance. They have recently purchased stands to set the vans on so that

underside maintenance can be done. Looking into temporary enclosures now. Some recent interior comments are that the vans are "too bright and too odorous." Shipping to foreign ports continues to present issues. The Cold Vans do not ship well, but they are using soft ride transport trailers. Constant attention to the refrigeration units is required.

Van Upgrades- Some of the improvements made to the vans includes overhead heaters, new escape hatches, electrical upgrades, and HVAC upgrades. Modifications to the aluminum vans to allow stacking while on container ship transports will reduce cost of requiring a "top stack only" shipment on commercial transport vessels.

Cost for Vans- They are NSF funded so no charge for NSF PI's. For non-NSF users, a per diem charge is applied.

Usage- The Cold vans are seeing the most usage with Rad Vans coming in next.

Safety- Question was asked if gas detectors are installed in vans and this will be considered.

East Coast Van Pools

Bill Byam/ UDEL provided the East Coast report with an overview of the current inventory which stands at (3) general purpose vans, (4) ISO Vans, (2) Cold Vans, (1) Clean Van, (1) Wet Van. For new builds they are planning to build a new berthing van, a coring van, and an AUV-ROV Van. Challenges include having the vans come back not properly secured. Some planned improvements are to conduct Phase-II of Cold Van Environmental Testing. Also working on phase-II of CSC documentation for stacking vans on commercial transport.

Fleet Broad Band-High Seas Net

Al Suchy/WHOI shared the report on the Ship to Shore Communication Subcommittee which is looking at current ship to shore communication requirements for the next few years and how to establish a use policy.

The RVTEC group recommends keeping the High Seas Net as the primary and the Fleet Broad Band as a back-up. Also recommend new modems for High Seas Net and increase bandwidth by 4 times. Also to create a bandwidth management plan and then revisit the above plan annually.

Representatives from Foreign Countries

National Environment Research Council/NERC's National Marine Facilities Sea Systems Geraint West updated the RVOC on activities within his organization. News on the old RRS Discovery which was scrapped in 2012-2013 in Belgium after 50 years of service was shared. The ship was replaced by the new RRS Discovery which was launched in April 2012. Improvements include a meteorological tower/mast up forward, an improved/modified bulbous bow which has resulted in less bubble sweep down at transducers.

Some challenges are excessive cavitation which was reduced by modifications to the head boxes and winch issues such as cooling problems, spooling issues and gear boxes and brakes issues.

Details on the RSS James Cook schedule this past year and recent advances in unmanned surface vehicles was provided.

Geraint updated us on the International Research Ship Operators group and the meeting in St. John's, Newfoundland in Oct2013 and the upcoming meeting in Nantes, Frances in September 2014. The new IRSO web site is: www.irso.unols.org

Royal Netherlands Institute for Sea Research, NIOZ,

Erica Koning reported on recent activities within the national oceanographic institution for the Netherlands. The main concern, similar to all of us, is around funding issues. Funding has been significantly reduced the past three years and they are working to find alternative funding. Erica shared recent cruises which have been operating around the Med and Black Seas. In 2015 they will have a cruise to the Caribbean/Puerto Rican Trench for a mooring recovery.

The Ocean Facilities Exchange Group (OFEG) is Europe's leading oceanographic research organization and provides a forum to consider barter exchange and co-operation opportunities. There has been limited exchange barters in the past 4 years but activity is increasing in 2014.

Defence Research & Development Canada, DRDC

Yves Perron reported on recent activities within the DRDC. This is an agency of Canada's Department of National Defence (DND), which provides DND, the Canadian Armed Forces and other government departments as well as the public safety and national security communities, the knowledge and technological advantage needed to defend and protect Canada's interests. Yves manages the CFAV Quest which in 2012 the DRDC had 128 sea days. In 2013 120 days were planned and then 100 days were cancelled, but the final number in 2013 was 87 days. The reduction in days was due to a defence budget reduction. In 2014 they were planning for 132 days but due to additional budget reductions, they are working with 120 days. At this point in time they don't have a schedule in 2014.

R/V Sikuliaq

Daniel Oliver/UAF provided the update schedule on the delivery of the newest UNOLS ship the R/V Sikuliaq which is currently in delivery trials on Lake Michigan, Wisconsin. They are still dealing with some issues which include the Z-drive lubrication system. There was a loss of lube oil to the lower gear due to a malfunctioning lube oil suction line. Currently being repaired by Wartsila as the ship is dry-docked in Sturgeon Bay, Wisconsin. Also dealing with a failed A-frame link arm which failed due to an engineering calculation error. A-Frame was removed for repair and will soon be reinstalled with a down-rated luffing capacity rating. A new A-frame is being built and will be installed after the first operating year. The CTD Handling system tested well.

They are building a "Multitool Interface docking head for the head of the Appleton Crane which will allow removal of the head box and the mounting of a self-contained HPU. This will be used for small winches, ROV's and other systems.

Ocean Class Research Vessel Updates on R/V Neil Armstrong & R/V Sally Ride Tim Schnoor/ONR & Mike Prince/ONR

Mike Prince led off with an update on the construction progress of these two new ships. The R/V Neil Armstrong was christened on March 29, 2014 in Anacortes, Washington. Construction is going very well and they are still on budget, but 3 months late on the delivery due to crane delivery issues. The ship was launched on Feb 22, 2014 and work continues on interior outfitting of the galley, mess deck, staterooms and bridge consoles.

Armstrong Outfitting- The outfitting of the ship continues with the exception of the crane. Hydro winches and A-Frame being installed now. Science Mission equipment will be installed to include multibeam swath bathymetry systems, ADCP, sub-bottom profiler,

The R/V Sally Ride is on schedule and will be christened in August 2014.

Both ships will be controllable pitch propellers, handling systems by Allied, aluminum masts and will have robust workboats.

R/V Thomas G. Thompson Mid-Life Refit - AGOR 23 class-

Doug Russell/UW updated us on the plans to do a mid-life refit which is scheduled on the Thompson first, the Revelle and Atlantis to follow. Initially Congress authorized 15 million for AGOR 23in the FY 2013 budget. Currently UW was awarded funds to conduct a design for all three ships. Glosten is working on this study which is looking at repowering, propulsion system integration, shipyard technical design, and a cost estimate. UW has hired a project engineer to lead this effort. At this point it will be more of a mid-life refit then a service life extension plan. The schedule to begin this is now later in 2015 and may take up to one year.

Group Discussion on Various UNOLS Programs of Interest.

Radioisotope Awareness Program- Jon Alberts reported that Alice Doyle/UNOLS has been developing a new rad user awareness program on the ships to make all users aware of potential contamination issues. The natural abundance researchers are keenly aware of this and UNOLS is working to better educate our ship users.

Cruise Personnel Manifest- The online manifest form developed by Alice Doyle/UNOLS Is working. Version 2 is out and while we have good cooperation, but we aren't at 100 % yet.

Lessons Learned-

Stewart Lamerdin provided a presentation on a recent incident when a crew member fell overboard while deploying a mooring from the R/V Oceanus. A work vest whistle lanyard became entangled in the mooring and pulled the crew member over. This was recorded on film which led to a discussion on whether we should ask for releases from all cruise participants. Discussion also followed on safety lines in certain circumstances, that all lanyards and loose clothing needs to be secured, and that these incidents need to be broadly shared among operators to provide lesson learned opportunities.

Marine Superintendents can use the UNOLS marsup@unols.org to share this information.

Guest Speaker: LCDR Omar Vazquez/Executive Officer/USCG Marine Safety Unit Savannah - NTVP & MMC issues, Near Misses/Collisions & Lessons Learned

LCDR Vazquez from the Marine Safety Unit in Savannah presented an extensive Power Point presentation on several areas of responsibility of the Coast Guard's Marine Safety Unit. He covered vessel general permits which are currently enforced by the EPA under 40 CFR part 122. He covered the NTVRP (Non Tank Vessel Response Plan) which applies to vessels over 400 gross tons. He also covered the policy on the use of marijuana. The Coast Guard continues

to prohibit the use of marijuana on ships. Details are given in the Marine Safety Information Bulletin, MSIB 01-14, dated Jan. 14, 2014.

His talk also covered Merchant Mariner Credentials, (MMC), and marine casualties. See Power Point in appendices.

Ship Happens. Admiralty Law & Insurance Update

Dennis Nixon/URI and the UNOLS Risk Manager presented his annual address which covered in detail marine insurance, safety, research vessel news and recent legal decisions. Please see Power Point in appendices.

Dennis reminded us that R/V's only purchase P & I insurance with salvage and wreck removal coverage. The hull and science cargo is covered by owner. Operators should have vessels evaluated for value periodically to determine at what level to insure for.

NOAA Asset "Pass" and Fleet Information System

LCDR Tracy Miller shred with RVOC a new system that NOAA is using for prioritization, allocation, and scheduling. This is the second year of use and working well so far. It provides a higher level of transparency and accuracy.

Friday 25 April 2014

Business Meeting, Assignments to Committees, Review of RVOC Action Items
Doug Russell/UW and Chair of the RVOC led an open discussion in this last day of the
meeting and we covered several different topics.

The Science Safety Briefing was discussed. A suggestion was made to include basic safety information in the pre-cruise planning meetings. An idea to have some of this information online so that PI's and their science party could review this in advance of arriving at the ship was suggested.

A Safety Wiki was suggested to encourage sharing of safety issues, incidents and information. This would be for marine superintendents only to help improve overall safety.

Medical Marijuana-

Jon Alberts informed RVOC participants that UNOLS Council agrees with CG Marine Safety Information Bulletin MSIB # 01-14 that prohibits the use of marijuana at sea. UNOLS recognizes that all persons aboard our ships are in a "safety sensitive position" and that the use of marijuana is prohibited.

Issue of over-the counter drugs, (OTC) was discussed. It was felt that operators needed to be aware of scientists that may be on OTC drugs that could affect a person's ability to work at sea.

Export Controls

Zoltan Kelety/SIO provided a web site at Scripps which give information on export controls. https://scripps.ucsd.edu/ships/planning/export-controls

Pregnancy at Sea

This was discussed as UNOLS does not have a UNOLS wide policy on this issue.

Eric King/SOI gave their policy on the R/V Falkor which is crew members aren't allowed at sea after 20 weeks into the pregnancy and will also apply this to science party. Ian Sage/NATO stated their policy was not to take anyone who was pregnant to go to sea. Doug Russell/UW gave UW policy which is they require a "fit for duty" from women's doctor.

Notification to Navy for Over-the-Side Operations

Eric King/SOI notifies Navy of operations in advance. Zoltan Kelety/SIO recommends issuing a "Notice to Mariners" and the Navy will recognize this.

Medical Clearance Process

Jon Alberts offered that NSF's Polar Programs was considering some form of medical screening process. Jon will check with Renee Crain whether any forward progress has been made in this area.

Nominations and vote on RVOC 2015 meeting location

We discussed options for next year's RVOC meeting. Doug Russell/UW offered to host it in 2015. Other ideas were shared such as holding it in the middle of the country to save airfare, but it was recognized that we do receive some benefits from having it at an UNOLS operator institution. Jon Alberts/UNOLS will confer with agencies on options

Round Table discussion items

Ballast Water Treatment Systems- USCG has not approved any particular system yet. Dan Oliver has installed a Hyde Marine System on Sikuliaq with provisional approval.

UNOLS Cable Lubrication Policy

This new policy will be incorporated into the next edition of the RVSS. There is some concern that the funds, equipment, and personnel aren't in place yet to fully support this requirement. It needs further study, funding, and development.

Glosten Stabilty Program- no comment to note

UNOLS Departure Times

At present there isn't a set UNOLS wide policy on sailing times. Each operator works within the requirements of their individual location. These was discussion around what defines an operating day. The UNOLS RVSS ed. 9 defines it as:

"Operating Days: All days away from homeport in an operating status incident to the scientific mission."

The question arises as to when the day starts. Is it a calendar day or a 24 hour day from time of departure out 24 hours.

Most ships depart and arrive during daylight hours and ETD?ETA can be flexible depending on local conditions.

MedAire

Although MedAire was invited, they did not attend. There is concern over the level of service in recent months and Jon Alberts/UNOLS is in touch with company to investigate issues.

Ideas for next meeting

It was suggested and agreed upon that the Marine Superintendents Only session be scheduled at the start of the RVOC meeting. We will do this next year.

Local Coastal Class of Research Vessels-

There was some discussion focused on the cost of the global ships and this amount of funding required to operate these ships. It could be said that small boats provide "more bang for the buck".

Meeting Adjourned: Friday 25 April 2014 at noon.