UNOLS - RVOC
14-16 April 2009
University of Texas Marine Science Institute- Port Aransas, TX
Hosted by: Dr. Steve Lanoux, Asst. Director for Operations, UTMSI
Minutes by: Jon Alberts, Mike Prince and Joe Malbrough

Meeting Minutes

Executive Summary

The annual UNOLS Research Vessel Operator's Committee meeting was held at the University of Texas Marine Science Institute- Port Aransas campus on April 14-16, 2009.

Action Items

1	RVOC needs a strategy for dealing with TWIC.
2	RVOC needs to discuss Medical forms and procedures: Do we need a form requiring signature that they will take their meds? Do we need to be more proactive in medical screening process? Scripps uses an "ability to work at sea form"? Should we re-evaluate our process in UNOLS, both on crew and science side? Recommendation that a small group outside safety committee look at our procedures.
3	RVOC needs to develop a new, up-to-date safety training video. JMS produced the video in 1998. Look at Chapter 1 in RVSS which is in all the staterooms and needs updating
4	Army Smoke Generators- Need to look at this before we do these cruises on UNOLS ships. RVOC needs to evaluate and make recommendation.
5	What is the future for use of P-code GPS in the fleet? Dan Schwartz will get in touch with Matt Hawkins and decide how to proceed.
6	Proposal to RVOC for an on-line UNOLS resource center website to share info across RVOC operators.
7	UNOLS Safety Training Manual needs updating

Welcoming Remarks- Call to Order-Pete Zerr- RVOC Chair provided opening remarks followed by introductions around the room. Participants, see Appendix II.
Dr. Steve Lanoux and Dr. Lee Fuiman provided logistics of meeting, a description and background history of UTMSI.

Guest Scientist Presentation- Dr. Ed Buskey, UTMSI and the Chief Scientist of the new Mission-Aransas National Estuarine Research Reserve managed by UTMSI. He works in the Gulf of Mexico looking at hypoxia affects on benthic organisms.
See Appendix III.

What is hypoxia? - Oxygen levels of less then 2 mg of Oxygen per liter forces animals to work harder. As temperature increases and salinity increases this results in decrease in Oxygen. Occurs mostly in coastal areas in industrial countries with intensive agriculture.

Persistent area of hypoxia in Gulf of Mexico has created a "dead zone" region.
What causes hypoxia: fresh water run-off, warm spring and summer temps heat water surface and calm seas decreases exchange of Oxygen at the surface. A large portion of fresh water is delivered down Mississippi which causes phytoplankton bloom, more stratification; they die and fall to bottom, and further deplete oxygen levels.

Spatial area in GOM varies year to year, but there has been an upward trend since 1982. These hypoxic zones vary over time, weather events, and temperature.

Ed has three stations, off the Mississippi Delta, cruises mainly off the LUMCON R/V Pelican using CTD casts, trawls to collect fish and invertebrates, sediment cores.
Active fish move along out of edge of hypoxic zones.
In these zones, reproductive organs greatly reduced in size which effects reproductive health.
Sediment- chemistry studies for nutrient transformations and oxygen uptake
Benthic copepods- Ed's work is to measure if there is measurable sub-lethal effect caused by hypoxia, looks at energy budget, for maintenance, growth, and reproduction in hypoxia zones.
More energy goes into maintenance and thus less energy available for reproduction.
Biomass is reduced in hypoxic zones, gravid female, (carrying eggs) numbers way down,

Conclusions-
Areas of moderate hypoxia can have important effects on populations of marine organism
Exposure to lowered O2 levels reduces reproduction health and rates.

Old Business
Accepting Minutes of 2008 RVOC meeting- Motion to approve, seconded and approved

TWIC- requirements for Mariners required as of April 15, 2009.
Need to update UNOLS TWIC pages, as to what each operator is doing.
Action Item for RVOC needs a strategy for dealing with TWIC.

Group Purchases update for 2007 & 2008 Shipboard Scientific Support Equipment items: See Appendix IV & V.

GEOTRACES winch modifications for global AGOR's. Update by Al Suchy

KNORR Geotraces Voyage completed in July 2008
Design completed and modifications to KNORR completed in March 2009, stanchion added to thruster room to increase support for trawl crane and crane crutch strengthened. The winch foundation design is completed and fabrication is on-going.

Working in 2009 to make the Geotraces compliant per CFR 189.
With Coast Guard and ABS review WHOI is looking at a portable over-boarding system to be included in SSSE proposal. Reviews are favorable. This would be an A-frame which will be compliant for all 5 AGORS.

At some point the winch and A-frame will come into the Winch Pool

Sailor Thrane & Thrane 500 Fleet Broadband System purchase-Update by Al Suchy. Bought 13 units, 12 in place and operational and in
2009 there are requests for 3 more for Langseth, Thompson, and Barnes

In 2007 Oceanus had a K-u band through commercial operator but didn't have coverage in the Eastern Atlantic and Mediterranean/Red Seas, so WHOI had to go to world wide coverage.
Fleet broadband is light, requires no inputs, easier to use and connect to internet.
FBB workshop in May 19, 2009 to talk about going forward-
Cost- 15,000 each-
Cost of operation- has been a challenge as it is hard to determine usage, set targets in $3,000-5,000 per month. Has been below that so far. $5 dollar a megabyte in the plan, or $11 a megabyte in a pay as you go. Can get it down to $3 per megabyte if you commit to using a set amount of megabytes. A fleet wide plan is being discussed, but the cost is high and each operator is a little bit different.
Fleet Broadband was set up as an augmentation to High Seas Net. This may change if we want it to.
On Scripps ships they limit the number of computers to have access to internet to control cost and amount of bandwidth being used. Full access to internet, per Tom Althouse is $96,000 per month.

Small Utility Boat Update- Joe Malbrough
Northwind Marine supplied utility boats to UM, WHOI, and Harbor Branch. LUMCON received a new motor and new foam collar on their Safe Boat.
This current group purchase is over, but if there is interest in the community, we could do another one.

500 & 750 mm blocks- Update by Bill Byam/Univ. of Delaware
500 mm - 10 blocks ordered and in use
750 mm blocks- on order. The cost is ~ $12,000 each

NEW BUSINESS

UNOLS Report- Mike Prince UNOLS Executive Secretary, See Appendix VI.

1962 Research Vessel Operators Council formed- Mike showed a timeline with RVOC. Developed Subchapter U- in early 1960's RVOC worked on some big issues and there may be some bigger issues that should be worked on with RVOC again.

A lot of background and experience in this group which makes it so important.
Mike's history in RVOC from USCG Academy on Eagle to Cayuse, to MLML.
To UNOLS Office. Importance of working together.

Safety Committee Meeting & RVSS- Tom Althouse. See Appendix VII- Dan Oliver voted in as Chair. The Safety Committee met at UTMSI on Monday 13 April 2009.

Great wealth of experience in the group and very important to keep spirit of cooperation. Meeting efforts over past year- Develop and maintain a safe operation, across fleet, Telling each other about the problems we experience is important. Sharing any and all information is key. Do more sharing, nature of problems, will benefit everyone.

RVSS is now on the web and hard copy is available. It is a living document, changes happen, rules change, and they should apply to un-inspected vessels too. New document will be a loose leaf binder and can update as needed. There will be a record of changes. Safety Committee will do the reviews and make the change documents. This will be a discussion process. It will be a five year review now with changes as needed.
During NSF inspections, they will look at whether you have updates in your copies of the RVSS

MedAire and service- Safety committee felt service was performing well and Scripps has had great support. Pre-package medicine is an option but cost is a concern.
Issue- Scripps had a member of science party who refused meds. We need to talk about this more.

RVOC Action Items:
Do we need a form requiring signature that they will take their meds?
Do we need to be more proactive in medical screening process?
Scripps uses an "ability to work at sea form"?
Should we re-evaluate our process in UNOLS, both on crew and science side.
Recommendation that a small group outside safety committee look at our procedures.

RVOC needs to develop a new, up-to-date safety training video. JMS produced the video in 1998. Look at Chapter 1 in RVSS which is in all the staterooms and needs updating.

Army Smoke Generators- Need to look at this before we do these cruises on UNOLS ships. RVOC needs to evaluate and make recommendation.

Safety Committee, - Nominated Dan Oliver to be Chair of Committee-
Currently it is:
Dan Oliver- UAK- Chair
Bill Byam-UDEL
Steve Lanoux-UT
Sam DeBow-URI
Ron Harelstad-BIOS
Paul Ljunggren-LDEO
Pete Zerr-OSU

Vote for Dan Oliver-
Discussion-
Pete Zerr made a motion, Dan Schwartz seconded, all in favor!

Ship Scheduling Committee Report, Appendix VIII- Stan Winslow-
2010 schedules look healthier at this point then we were last year at the same time.

DESSC- Mike Prince- The June 2009 DESSC Meeting at WHOI will do a dry-run for Preliminary Design Review for Alvin replacement.
Cost for a 6500 meter depth rating sub was too high. Contract with Lockheed Martin was terminated as a cost-saving, not based on performance.
DESSC will continue to provide oversight to NDSF
Hybrid ROV - "Nereus" either autonomous or tethered. An operational test is being planned

SCOAR- had been inactive due to health of Chair, but now Dan Schwartz/UW has volunteered to be the new Chair and it has been approved. Steve Ramp will stay on committee.

FIC- Appendix IX Report by Al Suchy, as rep to FIC.
SMR for Ocean Class project is on-going and was the focus of March 2009 meeting.
Focus was on the establishment of minimum threshold criteria.

FIC Action Items and issues they are following-

1. Kilo Moana handling system is being installed and hopefully tested in November
2. Hugh Sharp – Conducting debriefs interviews with Sharp's scientists and users.
3. Long-Coring System- first scientific just completed
4. OOI- stay in touch with new construction
5. Regional design and Construction
6. Fleet Improvement Plan- finished
7. ISS-2000 Integrated system
8. Bubble Sweep Down
9. R/V Weatherbird update and new home

Replacement Alvin update- provided on Al's slides

RVTEC Rich Findley, Appendix XI
Rich Findley – "35 years on various RV's"
RVTEC rep to RVOC and Safety Committee

Current Work List:
Review of RVSS
Crew and Tech Retention & Hiring-
RVTEC and Tech Manager E-mail lists cleaned up, removed vendors
RF Spectrum Management Committee – has disbanded but Richard Perry still involved.
RVTEC Education Sub-committee- Audri Steel/Univ. of Miami has agreed to take this over.
Winch & Wire Monitoring System – this is group development effort. A winch and wire workshop was funded for 2009, but will need to be scheduled in 2010.
Recommendation that PCAR be looked at.
Satellite Communications Workshop planned
Defined Levels of Technical Services.

AICC- Dan Swartz-
Dan provided an update on Polar Sea and Polar Star-

MLSOC- Paul Ljunggren- Appendix XII

Oversight committee – Lansgeth came on in late 2007. MLSOC has had 2 meetings during the past year.
Focus of MLSOC has been an overview of LDEO capabilities, shakedown cruises, areas of improvement and personnel.
Tour of Langseth-
Review and Prioritization of SSSE and Oceanographic Instrumentation Equipment
Conduct next meeting prior to Fall AGU using DESSC-like approach that includes reports from past year's PI's
Membership to committee would be rotating.

An issue for the Langseth has been technical support and competition with oil exploration.
For a 2 dimensional multi-channel cruise it takes 11 techs and a 3-D cruise requires 15 techs.
LDEO has managed to be creative with on the job training, some success, and some contract people.

Need to prepare a White paper on potential methods to improve scheduling and utilization of Langseth.

Fall 2008 AGU meeting was held in SF, CA.
Reports form PI's
2008 schedule- 250 days
2009- 254 days

Future for 2010 is not as bright as lack of funding, they need other funding sources

Long term projects-
Need upgrades to streamer
Improved habitability
Broaden funding beyond NSF

AGENCY REPORTS
ONR Report- Tim Schnoor, Appendix XIV
Tim reported he has been in a learning phase since taking over for Bob Houtman in Sept 2008.

2009 Budget-
717 days of Naval Research funded days of which 366 days on global. AGORS
With 64 days on Flip-

Exceeded budget by 60 % in 2009 but with creative financing saved the day. This included 2008 carryover, internal reprogramming. This minimizes opportunities for maintenance and upgrades.

2010-
497 days of science funded on global ships- with 250-300 additional days on other UNOLS vessels,
Ocean-class AGOR- There will be a temporary IPA part time position which is under review by CNR and a start date of 1 July, to represent CNR through process,

An RFP for operators will go out then the RFP for design and construction would be going out shortly thereafter.

IWGF update-Tim Schnoor, Appendix XIII.
Conduct an inventory for infrastructure needs to achieve the 24 Ocean research priorities plan goals.

Coast Guard report, Appendix XV- Mike Prince presented slides from Jon Berkson- See the slides

Bill O'Clock- NOAA report, Appendix XIV
Bill called in and Mike presented the NOAA power-point slides, same report given at Council in March 2009.

There are 3 missions for the NOAA ship "Okeanos Explorer" after the shakedown cruise.

Deep water mapping
Dedicated ROV to 6000 meters
Telepresence-

Crew Retention, Rest, and Fleet Inspection- NOAA is doing a study now, along with one done in 2001 and 2004. NOAA did try having a Point-of-Contact, Jack McAdams from NOAA who worked on this. NOAA is trying to push these recommendations along.

We need to get a hold of these NOAA studies to see if we can learn from this for UNOLS.

U.S. State Department-Liz Tirpak- Liz was unable to make the meeting.-
Pete Zerr gave report which was just contact information for clearances.

SPECIAL REPORTS

MedAire- Dr. Paulo Alves, Appendix XVII

He reported in 2008- 930 cases with 110 from R/V's.
There is a lot to be taken from these slides that can be used to prevent illness aboard ship.
The UNOLS safety committee needs to look at these.
Training, Communication, and Expertise- 3 legs of good medical care-
MedAire requested UNOLS input on what type of data is useful and can benefit the fleet.
Ocean pack is a very nice and complete system as stated by Eric King

NERC Update- Robin Plumley, Appendix XVIII

RRS Discovery problems- The ship will be 50 years old in 2012 and there are three primary areas that need work:
Main Motor
Winch Suite
Steel Work

RRS James Cook- Ship has completed first full year of operation working in the East Pacific, Mid-Atlantic Ridge, Eastern Atlantic, Indian Ocean, South Atlantic.

Bulbous bow continues to cause bubble sweep-down problems.

Marieke Rietveld –NIOZ, Appendix XIX (The Royal Netherlands Institute for Sea Research**)** R/V Pelagia and the OFEG Fleet.
Research Vessel Update
2008 was a tough year, they had troubles in the Gulf of Aden with piracy issues and they lost two in a helicopter crash in Antarctica-
They did update the EM 300 with an EM 302

Ocean Facilities Exchange group
www.ofeg.org-
Consortium of research vessel representing leading countries in Europe

She presented a road map for renewal efforts.

RV Sonne replacement to be built in 2010 in Germany and will be 105 meters, global class, with a bias for seismic, but no 3-d. with projected operation date in 2013

Norway also building a polar class ship in 2010 for 2012 operations

European Union to built a 200 meter icebreaker, will be a deep sea drilling vessel

China building a SWATH

Alaska Region Research Vessel- Dan Oliver, Appendix XX, AARV version today
Final design done in Oct 2008 was successful and they received funding through AARA Economic stimulus bill, buy American is an issue
National Science Board Approval on 31 March 2009
Z-drives will be owner furnished and the RFP went out March 2009, Univ. of Alaska has received the Z-drive proposals and is selecting the manufacturer now. They will make an award in early May.
Ship yard RFP has gone out and they expect to make award in Oct 2009.
NSF asked UAK to lengthen the ship 12 feet with an anti-roll tank. A feasibility design review was completed on 19 March 2009 and model testing to be done in April. A final decision to be in June, to add 12 feet to the mid-body. The yard will need to provide cost differential for added this 12 ft section.

Marcus Langseth- Update, Paul Ljunggren, Appendix XXI
Summary of first 8 cruises, have all been positive.
Marine mammal permitting requires a full time person and 6-8 months before a cruise for permitting. Requires trained observers, must be done in daylight, a passive listening device for Marine mammals. Ongoing issues that need to be dealt with.

Astoria Lay-up- see Paul's' list on slides

AGOR Ocean Class- Chris Macdonald, Appendix XXII
Source selection plan to be done this week, 14-19 April 2009 and an RFP will be released this week. Proposals due back in June or July and awarded in Aug or Sept. The first design review was completed in Nov-Dec.
Delivery, 4th quarter 2014.
Based on SMR's issued in Aug 2007 with UNOLS input in Oct 2008 on System specification. There will be two contractors through phase one and then a down selection process will take place.

RVOC Day 2- 15 April 2009

Guest Speaker- Pam Clark, Appendix XXIII– ISS system Hydrographic software system by SAIC.
ISS 2000 has been used on Kilo Moana and the Revelle

Single monitoring workstation for multiple oceanographic equipment and allows real time navigation monitoring and editing, real time data analysis and data archiving. Helm display for Captain.
Remote access is not currently available but in the works. Software creates a survey report file. Can perform CTD operations while surveying and data can be uploaded.
Uses GSF format-Generic Sensor Format develop by SAIC, University of New Hampshire and NAVO.
Pam said she will present to RVTEC in Seattle. Takes about a week of training.

Chris Grech- Deputy Director of Marine Ops at MBARI, Appendix XXIV a & b
MARS Observatory- Operation and Maintenance-
Test bed cabled observatory funded by NSF, for instrument developers testing new scientific instrumentation. This is 2 km of fiber optic cable with a single undersea node at .9 km (900 meter) depth
With autonomous camera, CTD's, rovers, aloha moorings serviced by ROV
Cable ship was used to lay 62 km cable.
MARS cable 1.3inches fiber optic. Ocean design connectors have been problematic

Marine Ops-
ROV did pre-installation surveys and initial installation, science sensors installation and at sea maintenance.
Tyco Tele-communications vessel C.S. Global Sentinel needed for install and repairs.
Availability of cable ship is a problem.
Had to plow cable route with a ship plow from beach to Smooth Ridge.
Dynacon handling system to handle ROV, built by TYCO, with a water jet
And cable is buried about 1 meter below seabed.
Heart of MARS is the electronic node, 5000 lbs in air and 2000 lbs wet,
MARS maintenance done with R/V PT Lobos and the ROV Ventana

ROV & Vessel task list
1. Deploy and recover science node
2. Testing the science ports
3. Deploying instrument packages
4. Conduct environmental impact

Extension cable deployments- intermediate lengths of cable deployed from ship Ventura.
Chris thought a UNOLS ships can lay 100 km cable with proper cable storage equipment

Lessons Learned–
Permitting is extensive and you are required to have marine mammal observers, chase boats

Recovery of cable is bonded for 1 million
Node repair requires availability of a cable ship at a cost estimate of 60-100 K per day.
Also required to have liability insurance
Fishing mitigation issues
Need an ROV for quick response
MARS estimate is 12 million for installation
Regulatory surveys of complete route and thorough testing of sub-sea elements

Guest Speaker Jan Kjarstad of ODIM Norway & Geoff Lebans of ODIM Canada Advanced Handling Systems. **Appendix XXV a, b, c, d & e.**

Geoff Lebans-

ODIM is a Norwegian company building automated handling systems.
North America operations in Halifax, Toronto and New Bedford, Mass
The ODIM Spectrum fairlead is an alternative to sheave-design blocks
They built a launch and recovery System on MBARI's ROV docking heads.
They are also building a launch and recovery system in a 20 ft ISO container.
Other product lines include a Cable Metering Sheave with depth, altitude, cable out, wire speed and wire angle as well as Safe Anchor Handling Systems and an advanced ROV launch and recovery system (LARS) with active heave compensation operable in 4.5 meters seas.

Jan Kjarstad- ODIM
For the RRS James Cook and delivered in 2006, ODIM built in Norway an over-the-side handling systems. ODIM supplied all winches in a 160 square meters room for all winches.

Other winches that ODIM builds include:

- Traction Winch - all electric driven for precise operations capable of carrying 15,000 meters of wire in the 14.5, 16.5 & 18 mm sized cable.
- Deep Tow and Deep Water Coring System-
- CTD winches-An out hauler unit keeps out any slack in the wires from deck to winch
- Also build A-frame and a Parallelogram Frame for outreach off the side.

Rope Management System- His chart gave good examples of fiber rope
Movie showing fish sorting system to pump desired fish back to ship and allows by-catch to go out through a shoot, unharmed.

Dan Oliver- Vessel Maintenance Management System-Appendix XXVI
They can be more complicated then needed which can drives users away.
Dan conducted a survey using Survey Monkey.com and he received 13 responses.

Of the 13 responses 7 are using a Computer Maintenance Management System (CMMS), of which 4 are using systems developed in-house and 3 use commercial systems.
If not a CMMS system they are using a spreadsheet paper record and log books for each system.
There are commercial systems by AMOS and ABS Nautical.

Most are for Preventative Management Systems (PMS) for machinery history, hull history and machinery technical data.

These systems offer a method for tracking PMS, history, inventory, regulatory compliance and standardization.

Only 2 responses said they used it for science systems, and no responses said they are using it to trace wire history using CMMS

Biggest challenge is getting IT support, compatibility with other Institutional systems for purchasing and personnel modules, and the ease of use.

Dan's Message- Keep it simple and he advises choosing one system that clearly establishes functionality.
Get institutional buy in, look for ease of initial set up, don't get discourage at first, can be labor intensive and tedious, with simplification as key.

RCRV Update by Matt Hawkins, Appendix XXVIII.

Both designs are complete.
In spring 2009, NSF will convene a design selection committee to down-select to one design and make recommendation to NSF. This will be a standard NSF committee of experts. Process will be well documented using NAVSEA selection criteria and the ARRV shipyard selection process.

If construction funds are identified, in 2010 NSF will release solicitation and review proposal for operators, with a shipyard selected in 2011 and construction in 2012 and operation in 2015.

Other NSF News:
Bob Houtman is new IPS section head
John Walter retired in January, hired back part time for RCRV
Dolly Dieter continues to assist with ARRV and Alvin replacement.

SSSE & OI
Base level of funding similar to FY 08
FY 09 group purchase- There will be a Fleet broad band and High Seas Net workshop.

NSF looking at 'Pools" and next generation equipment
Need operators input, suggestions, and coordination

Joint SSSE & OI Panel completed in Feb, waiting on program allocations

Equipment Pools- Benefit clearly demonstrated, working towards standards for accounting and management models are planned to enhance the pools.

Wire Pool- A workshop is planned for 2009 focusing on compliance with RVSS, Appendix A prior to wire distribution

Van Pools – East and West
Model for operation and accountability which will expand utilization in academic fleet and beyond.

Winch Pools- under development with SIO & WHOI to establish shared-use winch inventories, management and polices to establish daily rates and shipping. The pool manager and staff will be responsible for proper maintenance.

Ship Inspection Program-
NSF Reps will be Bob Houtman, Matt Hawkins, Linda Goad, Jim Holik and Brian Midson and in CY 2009 Point Sur and Barnes inspections are planned. The remaining ships need to be scheduled.
Increased emphasis on service life, compliance with Appendix A, SWL table and wire testing, and tank condition.
Ship Condition Form – no changes in CY09. Question: "Is current format useful to operators"?
Better NSF tracking of Post Cruise Assessment and inspection issues to take advantage of emerging opportunities.

Appendix B- Load Handling System design. These standards, like Appendix A, will be a UNOLS standard. New ships need to comply with this, including AARV and RCRV.

AARA- American Recovery and Reinvestment Act-
400 million for MREFC, (AARV and OOI)
Spend plans now at OMB for approval
Buy American and OMB reporting requirements are required and available for public comment.
"Standby to Standby"

Mike Prince added: The STRS system has an Ancillary Facility Search capability which will assist in making the shared-use pool equipment available.

Dennis Nixon asked: "Who owns the equipment and what has been done to manage risk if equipment fails or person is injured. Matt was unable to answer this and it was agreed to be looked at.

Next RVOC meeting-
Should be at a Ship Operating Institution and not conflict with OFEG

Guest Speaker- Fred Girshick from Ifineum on Low Sulphur Fuel, Appendix XXVII.

Technologies to meet new emission designs
See his slides-
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Infinium USA
1900 East Linden Ave
Linden, NJ 07036
908-474-3247

UNOLS Wire Pool Update: Rick Trask, WHOI, Appendix XXIX a & b.

A test was completed by Tension Member Technologies, Phil Gibson for life cycle, bending fatigue testing of (3 X 19) - 9/16ths inch oceanographic trawl cable.
The test results were presented in Rick's slides.
Life factor = Safety Factor times D/d

Evaluating Wire Conditions in the field is difficult without test-bed facilities and break-tests in field are not possible or reliable.
When cutting back damaged wire, how far should you go to be safe?

E-Kink Test developed by Rochester: Take an 18 inch section and take all the strands apart, and take an individual wire and bend it into a small letter "e". If more then 30 % of the individual wires fail, then wire is bad.

Summary- Just beginning to try to correlate wire condition with e-kink tests.
Rick Trask and WHOI are continuing to test all samples provided by operators.

RVSS Appendix A- Rope and Cable Safe Working Load Standards and SWL Estimator Spreadsheet: Rich Findley
See Apendix XXX.
Explanation of Appendix A-
Definitions of each term explained
Free to rotate de-rates a cable 10-15 %
There is an 18 month period to become compliant with these requirements.
Matt Hawkins: "These requirements have been part of RVSS for 20 years, now we must comply"
Dennis Nixon asked: "Has there been a casualty in a wire failure incident? No one has reported one".

Rich has developed a winch monitor system software program- not fully developed but could be done as Rich feels this will become the technician duties.

IMO Initiative for Long Range Identification and Tracking (LRIT) – Dan Schwartz
See Appendix XXXI.
Long Range Identification and Tracking-

Are R/V's considered cargo vessels under SOLAS? Need to check this-
Pole Star Service –
www.navcen.uscg.gov/lrit

Piracy considerations in the Gulf of Aden- Marieke Rietveld, NIOZ
See Appendix XXXII.
Pirate Attacks in the Gulf of Aden
ICC Commercial Crime Services: www.ics.com
Number of attacks shown in Gulf of Aden and Somalia coast
6 Ship attacked in one week during April 2009 and 115 attacks in 2008 with 46 hijackings. In 2009 there was a shift in attacks from GOA to NW Indian Ocean and East Africa. There was a decrease in piracy success rate in January and February 2009.
http://www.unosat.org
http://mschoa.org

No longer using convoys but now they are using group transits based on ship speeds

There are features of ships which have prevented attacks which include:
Freeboard greater then 8 meters
Faster then 16 kts
Well trained crew
Able to do evasive measures

www.mschoa.org Maritime security Center

We will update the RVOC UNOLS site with new links to these sites

Dennis Nixon- Ship Happens- Admiralty Law and Insurance Update
Appendix XXXII.
He is always available for UNOLS marine superintendents.

Overview of World's Marine Insurance
Insurance premiums continue to rise mostly on cargo and hull with the liability premiums somewhat level.
2008 was second costliest year for insured losses $225 billion.

P & I clubs help spread the risk, but LDEO is the only operator in a club.

Next year premiums will go up an estimated 20 %

Kidnap and Ransom Insurance- this is a new policy option. Not covered in normal insurance.
Dennis got a quote for a ONE TIME 3 million policy on a commercial vessel is $30,000.
"Bullets Cost Less"?
Dennis recommends thinking carefully about route plan before scheduling a cruise.

Recent Fatalities:
Drinking on a Norwegian ship caused a death, went he went over the rail after drinking.
Another crewman broke ankle after the rescue craft was deployed improperly. Crew was also drunk.

Second incident-
North Sea ship the "Viking Islay" lost 3 crew members who died after entering a confined chain locker that was an oxygen deficient environment. All tanks should be tested for oxygen deficiency and poisonous gases.
Training in uses of EEBD's is not being done and confined tanks were the largest cause of death.

R/V Calanus- intoxicated person released mooring lines; vessel drifted into busy shipping lands and ran aground.

R/V Rude -vessel intended to use for pollution and water quality monitoring actually spilled 1700 gallons of diesel fuel in Elizabeth River.

Violation of EEZ- there have been incidents

Ocean Fertilization is now limited to legitimate scientific research. Resolution adopted limits ocean fertilization activities to legitimate scientific research.

ISOM Code of Conduct: The U.S. supports the concepts, but does not endorse or will sign the treaty.
IMO Code of safety for Special Purpose Ships , 2008 code aims to provide an international standard of safety for new construction of special purpose ships.

Coast Guard proposed rule on passenger vessel stability after several casualties. Ex. Average weight of US citizens increased from 160 to 185 pounds. "Should be more in the South!"

ISOM Issues Discussed-
Alcohol- no consensus internationally. Several case histories presented.

Piracy off Somalia Coast discussion. Resolution 1846.

Legal Issues Affecting Scientific Diving- UNOLS uses AAUS standards. OSHA exemption permits scientific diving to take place if an institution has a Diving Safety Manual and a Diving Control Board. OSHA and remove exemption at any time. However over the past three years there have been 3 deaths involving scientific diving and there will be new laws coming.

RVOC 17 April 2009- Day 3

Eric King, UW - Canadian Shipping Act 2001, Appendix XXXIV

R/V Alpha Helix- now owned by Stabbert Maritime in Seattle, doing oceanographic research for the Navy this past year.
NOAA John N. Cobb- 58 years old, just retired.
NOAA McArthur, out of retirement and working in Gulf of Aden, operated by Blackwater Maritime.
There is now a rescue tug in the Pacific Northwest at Neah Bay. The Tug Bill in Washington State is a Senate Bill which requires a rescue tug at Neah Bay and all users in the Straits must pay to pass through. Not sure if Research vessels will be required to pay and how much.

Crew Endurance Management System- CEMS, designed to manage risk factors which lead to human error and performance slumps
USCG and American Waterways Operators working to train companies to improve work hours, light policies, sound insulation.

USCG Guidance Navic
www.uscg.mil/hq/cg5

One company providing training is Salyers Solutions LLC, which has a 2 day program @ $400 per person, called “Training for Coaches”

Canada Shipping Act- 2001
Ballast Water Control Management Regs 2006
Canada Chamber of Shipping- www.chamber-of-shipping.com

Sign onto organization and pay a fee for operation in their waters for$ 760/year for pollution response.

USCG Alternate Compliance Program (ACP)
>=500 gt on international voyages, allows other classification societies to conduct inspections.
2008 Final Rule but not for R/V’s,

www.uscg.mil/hq/cg5/acp/

Action Item for RVOC: Proposal to RVOC for an on-line UNOLS resource center on website to share info across RVOC operators.

American Waterways Operators Newsletters, bimonthly, provide advocacy
www.americanwaterways.com/press_room/newsletters

Outreach Program- Adopt-A- Ship- MARAD
The international propeller club of the US and US Maritime Administration to foster interest in life at sea in 5th to 8th grade. UW is doing a pilot program with a local elementary school

Crew and Technician Retention Workshop findings and actions: Stewart Lamerdin. MLML & Mike Prince, UNOLS, Appendix XXXV.
Crew and Tech Retention – A Pilot Program is being investigated.
We are working on a recommendation by Council to address specific recommendations to look at crew retention and to provide some solutions in a long term approach.
A cross section of ship operators, HR personnel and techs, put together a small work shop which was held in Austin Texas in February 2009.

Mike and Stewart are completing a draft proposal to address:
Training and scholarship- this program would take funds out of day rate to be used to training.
Internships- to develop a process that would allow the UNOLS fleet to participate in Workboat Academy training program for licensed officers.
Crew & Tech- Personnel Pool Coordinator – to develop a plan that centralizes information about available crew and technicians, work with each institutions to figure out a smooth process to pay salary, cover retirements, benefits, liability,
Dennis Nixon: " The IPA program might shed some light on issues to share employees across institutions".

The Pool Coordinator may also help develop a Berthing Policy to provide training opportunities for teachers, technicians, and scientists.

UNOLS Personnel Coordinator- create a full time position within UNOLS Office staff responsible for::
Crew and Technician recruiting-
Manage the relief personnel pool process
Facilitate coordination among ship operators
Develop materials, tools, videos, brochures, newsletters and attend job fairs,
Develop and coordinate fleet wide training and internship program to help manage scholarship program

Final recommendation- there is a long list from workshop that addresses ways to keep crew happy.

Product is a proposal that will be submitted to committee, Council, RVOC, and RVTEC for endorsement and then submitted to federal agencies for discussion and possible funding.

Time-scale- matter of weeks.

Tom Althouse:- "need buy in from the science side to get berths on a ship." He has Maritime cadets needing a berth for training sea time.

Research Vessel Academy- Gregg Trunnell- Pacific Maritime Institute, Appendix XXXVI.
Parent organization is MITAGS,
The Pacific Northwest tug boat industry put together a skill panel with labor departments, community college, city council, and the maritime academy, to address crew retention.
There was a shortage of crew on tugs due to good economy and STCW fees.
Pacific Maritime Institute developed an internship in a Maritime Academy format.
with an estimated cost of 27,000 for a two year program
Cost now is 30,000.
www.workboatacademy.com
Targeted people who want a vocational training, extremely selective. Then match them with a company. They aren't doing engineers because the engineering STCW requirements haven't been established.
Attrition rate first year was 30 %, second year, only lost 2 people

He is interested in working with UNOLS and operators to develop an partnership with R/V's
They have had 2 classes graduate so retention is unknown.
They have found it best to have individual pay for their own tuition, then over a five year process the company reimburses the individual if they stay with the company.

The host ship operator pays a monthly stipend of ~ $900/month

Environmental Section
Tom Althouse, SIO, on California regulations on oil spill and response-
Talk to your agent first as there are some minor changes coming up.
Ocean Shipping- Our ships are not considered as ocean going ships; we fall in commercial harbor craft. R/Vs are specifically exempt, except for record keeping requirements.
In California only low-sulphur diesel is available now.
Federal Ballast water issue- must make reports to State of Calif., hasn't been a problem for SIO.
Pollution Discharge- tighter on federal regulations then state regulations.
The off-road diesels, i.e. forklifts and cranes have been a problem and SIO is looking for option to put pollution controls on, but this is old equipment. Tom expects things to get tighter as states are able to make tighter regulations then the feds.
Recent permits in Monterey Bay- MBARI does a permit for the year on an annual basis.

There have been some power level issues with the ADCP for a special permit through the Marine Sanctuary process. Marine Protected Areas are requiring more permits.

Al Suchy- WHOI , Appendix XXXVII a & b.
East Coast Reg Updates:
Right Whale Ship Strike Reduction, 50 CFR224.105
In effect now for vessels over 65 feet or greater, for seasonal management area, vessel speeds less then 10 kts. In Cape Cod Bay, Block Island Sound, Brunswick, Georgia and Fernandina Beach, Florida. NOAA has good maps of these areas.

No Discharge Areas in Massachusetts State Waters is proposed to phase in over 3 years.

Long Range Identification Tracking LRIT- WHOI thought they had to comply with SOLAS V/19-1 33 CFR 169, final rule April 29 2008
Vessels over 300 gt and carrying more then 12 passengers on international voyages.
Upgrade to GMDSS,

National Pollution Discharge Elimination System, NPDES, Vessel General Permit VGP
Developed and managed by EPA
www.epa.gov/npdes/vessels

The O'Brien Group can assist with plans.

ABS will provide statement of fact reports for all ABS class ships.

Tom Neuman- NPDES, from The Meredith Group provides consulting services for environmental issues. This is a compliance document, not an enforcement regulation and we should use best practices.

UNOLS Van Pool Update
Bill Byam and Tim Deering from UDEL on the East Coast and Pete Zerr, OSU is the West Coast person. Appendix XXXVIII.
This is a shared use asset for portable oceanographic labs.
New vans coming from OCE and OPP.
Some vans have suffered damage. Vans requiring large repairs are sent back to manufacturer. Some floors have caused problem due to copper treatment in wood.

We need your help –
Shipping – There is a format for shipping in a notebook in each van. Power cords and electrical connections must be properly stowed for shipping.
Don't modify vans in any way and close wire passes before shipping,
There has been damage at sea with gear not properly secured.

There are web sites for van pools:
http:marops.cms.udel.edu

Ken Fitzgerald /Glosten, Appendix XXIX.
Report on Wire Safety
See Ken's slides, call Ken to explain this further-

Round Table Discussions- Marine Superintendents

Ship Inspection Program- will take a hard look at determining "end of projected service life" and the current cost estimate of SLEP. Hard part is determining what demand is.

Winch pool: trying to determine a day rate for these to cover consumables, maintenance, repairs, and shipping. Al and Tom working on it now.
Matt Hawkins: "It is overall cheaper to have special purpose winches in a pool"
And we need to continue to populate the winch information into the UNOLS web page

RVOC Only web site-
Eric King idea of having information available as a blog to share information.
User name:RVOC
Password: rvoc2000

CTD Cable Improvement Workshop- We should wait till Appendix B process goes through the process with the CG and the ABS and then design a narrow focus workshop with operators, manufacturers and technicians.

UNOLS Berthing Policy-
SIO/Tom does it on case by case-
WHOI /Al- Don't need a standard policy, as each operation is different from each other.
UW/Dan: We do it on case by case.
UNOLS/Mike- we don't need a UNOLS policy

Safety Statistics and Post Cruise Assessments, Appendix XL. UNOLS Report by Mike Prince
2008 reports/ Quarterly Accident Reports-
2008-, All reports were submitted
One or fewer accidents per 200,000 hrs, average of 2 lost days per 200,000 hrs.
We have a low accident rate.

Post Cruise Assessment 1999-2008- Mike showed a chart of submitted reports
Ch Scientists reports- 71 % return rate
NSF uses these to make improvements

There is an ad hoc subcommittee looking at PCAR, Bob Collier, Mary Jane Perry, Joe Malborough, trying to improve the forms to more accurately gather this information

Need to look at how forms are used, what the content is, and the tools to have them made available.

Safety Committee- update safety video, (current 1998) and manual. Needs an updating
Action item for RVOC: UNOLS Safety Training Manual needs updating, Chapter one Safety video is designed to hit main points of Manual.
RVSS- 5 copies for each ship you operate and 5 copies for the office. Then chapter 1 in each stateroom.
Safety Committee to review the medical procedure process.
Eric King/UW to help on Committee-, Dennis Nixon/URI to advise, Dan Oliver/UAK to lead.

OSRP- Oil Spill Response Plan-
SOLAS Certificate and ISM Certificate

ISOM- Code of Conduct for Marine Scientific Research Vessels
US doesn't adopt these, but endorses them.
Oceanographic research community knows we have potential to cause problems and we have taken a stand to not cause harm.
Ask Dennis for some legal words and a link to ISOM guidelines to have on our web site. But check with Bob and Tim first.
The ISOM code is inline with current US laws

Avoiding conflicts in Operational Areas-
Mike Prince reported that we need a better system to work out operational conflicts in areas such as Juan de Fuca.

Ship Condition Form- need a login, ask Doug White at UDEL.

R2R- Rolling Deck to Repository – Mike gave an explanation to RVOC/

P-code- Stan Winslow- "Do we still need it?" question to community.
Stan thinks we can't justify keeping it on our ships. Dolly Dieter asked Dan Schwartz to write an MOU policy on whether we keep it, but now Dan Schwartz doesn't think we need it. Matt Hawkins has the letter.

Action item: Dan will get in touch with Matt and decide how to proceed.

NOAA ship tracker- Sam DeBow
Web site: http://shiptracker.noaa.gov
From ship's SCS system.
Action Item: Work with Sam to get ship tracks for UNOLS online

Sailing Time- Discussion on when ships will depart for a cruise and whether ships can sail at midnight. Policy varies across the fleet.

Nominations for RVOC Meeting in April 2010
Sam DeBow- proposed URI hosts the meeting, no other volunteers.
All in favor: Unanimous Vote of **yes** for URI.

Assignments to Committee for Action items-
Medical Process Procedure- Eric King/UW, Dennis Nixon/URI and Mike Brennan/WHOI,