Meeting Minutes

2008 Research Vessel Operators' Committee Annual Meeting April 22 - 24, 2008

Old Dominion University Webb Center – 1200 Webb University Center – River Rooms Norfolk, VA

Appendices

Note - All presentations are in PDF format unless otherwise indicated. Large files are noted with their size.

Ι.	Agenda
II.	Participants
III.	Geotraces Presentation - Greg Cutter
IV.	Simplified Voyage Data Recorder - Al Suchy
V.	Harken Blocks - Steve Rabalais
VI.	Jason's Cradles and FLIR System - Pete Zerr
VII.	UNOLS Report - Mike Prince
VIII.	Safety Committee Version 5 - Tom Althouse (HTML Format)
IX.	DESSC Committee - Mike Prince
Х.	FIC Report - Al Suchy
XI.	RHOV Report - Al Suchy
XII.	MLSOC - Paul Ljunggren
XIII.	NURC/NATO Report - Ian Sage
XIV.	NERC Update - Robin Plumley (2.6 MB)
XV.	Ocean Class Project Plan - Chris MacDonald Project Manager for
	NAVSEA
XVI.	ARRV Report - Dan Oliver
XVII.	Marcus Langseth Report - Paul Ljunggren (4.81MB)
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XIX	<u>3 Point Solutions, Inc.</u> - Fred Campbell and Dave Johnson (4.36 MB)
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XXI.	Markey Winches - John Davis (2.96 MB)
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XXIII.	Winches - Steve Rabalais
XXIV.	<u>RCRV and ARRV NSF Report</u> - Matt Hawkins

XXVa.	General Arrangement of UMCES R/V - Bruce Cornwall
XXVb.	Construction Photos for UMCES R/V - Bruce Cornwall
XXVI	SWL Estimator Spreadsheet - Rich Findley
XXVII	Wire Testing - Rick Trask (2.2 MB)
XXVIII	NOAA Report - Captain Emily Christman
XXIX	NSF Report - Matt Hawkins
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XXXI	Canada Shipping Act 2001 and Oil Spill Response Program - Dan Schwartz
XXXII	Crew and Technician Recruiting and Retention - Stewart Lamerdin
XXXIII	UNOLS Van Pool - Steve Rabalais and Pete Zerr
XXXIV	California Regulations - Tom Althouse
XXXV	PCA and Safety Statistics - Mike Prince
XXXVI	Code of Conduct for Marine Scientific R/V's - Mike Prince

MEETING MINUTES

TUESDAY, 22 APRIL 2008 0830 Welcoming Remarks

<u>Call the Meeting and opening remarks:</u> Pete Zerr, Interim Chairman – Welcomed members and guest at the 47th Annual RVOC meeting.

<u>Dr. Richard Zimmerman</u>, Chair- Dept of Ocean, Earth, & Atmospheric Sciences. Welcomed RVOC members to the ODU campus. Students in the ocean and earth science program focus on the global systems that control environmental conditions. ODU operates the R/V Fay Slover, a 55 ft.all-aluminum research vessel and operates in Chesapeake Bay, estuaries and on the continental shelf. <u>Billy Giocondo</u>, Marine Superintendent, Old Dominion University

0850 Guest Scientist presentation – Professor Greg Cutter on the GEOTRACES Project. An International study of the marine biogeochemical cycles of trace elements and their isotopes. The mission is to identify processes and quantify fluxes that control the distributions of key trace elements and isotopes in the ocean, and to establish the sensitivity of these distributions to changing environmental conditions.

0915 OLD BUSINESS

Chair & Vice-Chair Election Results. Pete Zerr and Joe Malbrough were elected as Chair and Vice-Chair. Both accepted. Minutes of 2007 Meeting (See: <u>http://archive.unols.org/meetings/2007/200704rvo/200704rvomi.html</u>)

Minutes are accepted by membership.

0925 Group Purchase updates for 2007 Shipboard Scientific Support Equipment items:

<u>Safety Equipment by HBOI</u> - Tim Askew. Sterns ultra 4000 personal floatation devices. Lightweight vest to wear when working on the back deck. Also bought rearming kits. These are automatic inflating. Also had ACR ResQfix personal locator beacons, which are personal epirbs. Flashlights, which work in smoke

and fog. Fire extinguishers for Lithium fires. List of recipients include: UW, LUMCON, Duke, WHOI, RSMAS, HBOI, OSU, UDEL, SIO, BIOS, MLML.

<u>Voyage Data recorders</u> – Al Suchy reported on the simplified voyage data recorders installed on the Thompson, Revelle, Atlantis, Langseth, Kilo Moana, Melville, Knorr. See Appendix IV. For ship which are over 3,000 gross tons. Discussion about the details and problems with installation and integration. Involves interfaces with a lot of the bridge equipment. Question of yearly service requirements, required or not?

500 & 750 mm blocks – Steve Rabalais. See appendix V. Purchasing 500mm blocks for 9 vessels at \$7,000 but will have to update their quote to add six magnet pickup holes and for the sensor. Harkens had quoted \$12,000 for 750mm blocks, but now they do not seem interested in quoting this size block. There is an alternative from Dynacon. The 750 mm block is a wider sheave with about 4 inches between the cheeks. They are moving forward with the 500 mm blocks, which have a SWL of 10,000 lbs. The 750mm blocks have a SWL of 20,000lbs. These blocks are lightweight and easy to carry, made from composites and non-metallic components

<u>Jasons' Cradles & FLIR thermal imagers</u> - Pete Zerr. Jason's cradles for recovery of seamen in the water. Went to the following institutions: MLML, UDEL, SIO, BIOS, Duke, RSMAS, HBOI, UW, OSU. Great for recovering unconscious or incapacitated persons who fall overboard. The FLIR system for detection in low light, cancels out bright lights in a harbor. See slides of thermal imager vs. regular camera. The systems went to Knorr, Wecoma, Thompson, Endeavor, Sproul.

SarFinder MOB's and why NOT to buy them - Joe Malbrough

The MOB system was purchased in February 2007 and delivered to participating institutions by March 2007 as part of a pilot program to test the efficacy of an electronic man overboard system. The MOB system was purchased by LUMCON to be installed onboard R/V Pelican, R/V Revelle, R/V Wecoma and R/V Oceanus. The system has not performed as per specifications on any of the pilot program vessels. The MOB system had been unsuccessfully installed on all of the above vessels. Apparently, the manufacturer's supplied power cable is not wired correctly. R/V Wecoma was the only ship to have successfully turned the unit on, after contacting the manufacturer's representative, Sea Marshall-U.S., for a new receiver and power cable. Sea Marshall-U.S. had to send new units to each of the above vessels, which will alleviate the problems of powering the MOB system. R/V Wecoma was also unable to achieve the advertised range of 3 to 5 nautical miles from the system; Sea Marshall-U.S. identified interference as the most likely culprit, and has recommended raising the MOB system's antenna height. Given the tendency to have a large "antenna farm", the other vessels in the pilot program had similar issues once they can turn their units on. The vendor, Dockside Marine Electronics, refused to refund our funds but stated they "will no longer sell anything else from Sea Marshall until our issues are resolved." The manufacturer's representative is committed to getting the MOB system functioning properly but still to no avail.

NEW BUSINESS

1015 Committee and Liaison Reports

<u>UNOLS Report</u> – Mike Prince, Executive Secretary-See appendix VII. Major Objectives-Enlarge supporters, plan for future needs, comply with ADA guidelines, gender and special needs. Propose training for sexual harassment for mainly PIs. Other projects- UNOLS brochure, wire workshop, STRS system. LSU onboard as new UNOLS institution. New UNOLS vessel R/V Marcus G. Langseth. The competition process is underway for the next UNOLS office; expected proposals are from URI, RSMAS,

and LDEO. New office will take over May 1, 2009. Selection decision by October 2008. UNOLS nominations for the following chair elect, two council positions (Operator, and At Large) and SCOAR chair.

<u>Safety Committee & RVSS –</u> Tom Althouse. See appendix VIII. The targeted publishing date is October 2008. The viewable draft is available online at <u>archive.unols.org/publications/manuals/saf_stand/2006/RVSSv5.doc</u> Safety Committee Version 5.

Reviewed format and key changes, asked everyone to read "required by RVSS" and "recommendations." Discussions on wire loads, safe working loads, peak loads and over the side operations. Captains under pressure to get job done with high wire loads. Use RVSS as a set of guidelines and regulations to stop unsafe operations.

<u>Ship Scheduling Committee</u> – Stan Winslow Ship scheduling data over 2007-2008. Still have many days available. Regional ships are below optimal utilization. If 2008 looked bad, 2009 looks worst. Need to look for ship time other that NSF and Navy. Operating cost continue to rise.

<u>DESSC Report</u> – Mike Prince- See appendix IX. Discussed last meetings and 2008 meetings, NDSF vehicle operation limits (policy is 2nm), Technical Advancement of Remotely Operated Vehicles and Submersibles Workshop held in January, Alvin and Jason debriefs.

Break for lunch

<u>FIC</u> – Al Suchy- See appendix X. Fleet Improvement Plan nearing completion, fall 2008. Fleet renewal and challenges with new ship construction delays and skyrocketing cost. Assessments on newer ships and Global Class science mission requirement updates. We cannot afford to build vessels that satisfy all science mission requirements. Need to ask for minimum requirements or perhaps call it science mission request.

<u>RHOV</u> – Al Suchy-See appendix XI. Discussed two contracts, SwRI and Riviera. Gave status of personnel sphere. NSF approved Phase 1. ABS accepted hull design and the forging process has begun. Diagram of new RHOV vehicle design was shown and discussed. There is a significant funding shortfall to complete RHOV, options are obtain additional funds, upgrade Alvin, or terminate RHOV project.

<u>RVTEC</u> – Bill Martin-2007 meeting held in November at MLML. Matt Hawkins covered SWL standards. Phil Gibson on determining wire capabilities. Bob Arko reported on the Data Management Committee. Will put words on the cruise planning about wood packaging. November 2008 meeting will be held at FSU SAMOS. Bill wants to make sure that crew retention stays on the Council agenda. The design for the pole mount use for a towed fish needs to be examined carefully; it is different that what was used on Thompson. Cannot extend pole to full length if towing at high speeds.

<u>AICC</u> – Dan Schwartz. ARCTIC ICEBREAKER COORDINATING COMMITTEE (AICC) Solicitation for new members to the committee.

<u>SCOAR</u> – Mike Prince. Recruiting new chair. Once new chair is in place the committee will start to try to make the aircrafts facility more acceptable to the broader community of oceanographers.

<u>MLSOC</u> – Paul Ljunggren- See appendix XII. Last meeting Dec. 2007. Transfer of title to NSF and results of JMS inspection. Discussed 2008 schedule and equipment proposals.

<u>State Department</u> – Liz Tirpak. Liz introduced her Department of State colleague Roberta Barnes, who has provided assistance to the RVOC community for over 25 years, facilitating approximately 500 post-

cruise data transfers and 400 research authorization requests per year. After providing a brief overview of the research request process (see <u>http://www.state.gov/g/oes/ocns/rvc/</u>), Liz presented several emerging trends. A few countries are now asking whether cruise tracks will cross into the territorial sea (12nm from the baseline); if your track brings you close to 12nm from shore, applicants should provide such information in the application. Countries are also more often requiring specific dates of entry and exit from their exclusive economic zones (200nm from the baseline) – approximate dates should be provided on the application and then revised as necessary within one month of the cruise to ensure accuracy in the authorization documentation. Although countries are encouraged to submit details regarding official participants one month prior to the start of the research cruise to ensure embarkation, this guidance is frequently disregarded; operators should do their best to accommodate these last-minute appointed observers but should also not hesitate to indicate when such last-minute arrangements are not feasible. Discussions are underway in various for a regarding requirements for research on the high seas; for these deliberations Liz welcomed examples of how self-regulation or codes of conduct are employed by the RVOC community. Since "marine science research" is not explicitly defined in the Law of the Sea, details regarding research sponsors should be accurately disclosed on the application such that there is clarity regarding the non-commercial intent of the research plans.

<u>MAS/Medaire</u>- Mike Prince- Showed and discussed statistics of cases in 2007. Low number of cases for 2007. Low lost time accidents. Detelina Trendafilova from Medaire was available to answer questions. Will renew contract. MAS will travel to UNOLS institutions to provide training.

Representatives from Foreign Countries

NURC – (NATO Undersea Research Centre). – Ian Sage. See appendix XIII. NRV Alliance and CRV Leonardo. Face same issues as American counterparts such as funding and crew retention. Group project with Russians to locate Russian nuke sub and assist in retrieval. Slides were impressive.

NERC (Natural Environmental Research Council) Update – Robin Plumley. See appendix IVX. Formation of National Marine Facilities Sea Systems. Highlights of Isis ROV (in Antarctica), RRS James Cook, RRS James Clark Ross and RRS Discovery.

Research Vessel Updates -

<u>Ocean Class Design Effort</u> - Bob Houtman. Still on track, Navy dollars in budget. Spending level is same as past years. Ocean Class still on track to start in FY11 and FY12. They have money to bring NAVSEA on board to start the process. Chris McDonald. Project manager for NAVSEA on the Ocean Class reviewed the project plan. See appendix XV. Review of timetable with delivery in FY 14.

<u>Alaska Region Research Vessel (ARRV)</u> – Dan Oliver, Seward Marine Center. See appendix XVI. In phase 1 of a 4 phase project, finalizing design phase with NSF review in October. Had some major design changes. Expecting funding by year 2010 and a 30-month build time.

<u>Marcus Langseth update</u> – Paul Ljunggren. See appendix XVII. Shakedown and Calibration cruises. Showed the conversion project. Current streamer, towing arrangements and air guns/sound source explained. Handling and building of 6 and 8-kilometer streamers. Requirements of marine mammal observers (MMO's), operate 24 hours, require bunk space which include "guess" observers from other water nations.

Insurance and Admiralty Law Update and ISOM R/V Code of Conduct - Dennis Nixon: Overview

of world Insurance Market, Legal issuers affecting Oceanographic Research vessels. Global Marine Insurance Report 2007. See appendix XVIII.

Global Marine Premium: Ask for a reduction, insurance making a ton of money!! Ask for port insurance if in port for 2 months or more as vessel not at risk as out in open sea.

IMO Code- Update—IMO working on strengthening implementation and enforcement of Code, three facility investigations focused on the vessel's safety management system: Plan what you do, do what you plan! Lesson's learned from Top Ten Lawsuits for 2007.

WEDNESDAY, 23 APRIL 2008

0830 Guest Speaker: Fred Campbell & Dave Johnson, 3PS, Inc. - Load moment indicators, wire monitoring systems, and winch controls. See appendix XIX. Located in Cedar Park, Texas. Primarily 3PS is a sensor manufacturer for cranes and lifting applications.

Al Suchy provided group purchase update for winch monitoring and peak and low load detection. Impemented on R/V *Atlantis, Knorr and Oceanus*. See appendix XX.

Guest Speaker: John Davis, Markey Machinery – Auto Render & Recovery - Research winches, hawser winch-applications and evolution. See appendix XXI. Discussion of possible green winches. Research fleet winch machinery. "Form Ever Follows Function"-Louis Sullivan

Guest Speaker: Rapp-Hydema - Winches - Tor Andersen and John Hotaling - See appendix XXII. Provided winches for NOAA research vessels. Practical focus areas dealing with winches specifically designed for handling submersible scientific equipment. Oceanographic winches with automatic heave compensation. Fluid cooled electric motors, which are totally enclosed and designed to stand up in harsh environments. Slide which showed automatic heave compensation and without any compensation.

R/V *SHARP* **winches** - Steve Rabalais. See appendix XXIII. Winch complement on R/V Hugh R Sharp: Caley Scientific Smart Winch with crane, Dynacon trawl winch and portable deck winch (Dynacon 10010).

Agency Reports- Part II

<u>NSF- Matt Hawkins</u>, budget, ship ops, ship inspection program. See appendix XXIX. Discussed personnel and responsibility changes. Budget available online and basic level funding from last year only 1% increase. Fuel prices increase 30%. Lots of challenges ahead for operators. Budget 50M. As cost rise, the number of NSF funded days will go down. Currently 2400 funded days.

Mandatory reports are good. Make sure any co-PI on proposals need to do their annual reports for other projects or else your funding might be delayed.

Personnel and Responsibility Changes:

Jim Holik-Tech Support, Oceanographic Instrumentation; Matt Hawkins-ARRV,SSSE, equipment pools (wire, winches, vans); Brian Midson- Submersible support (NDSF); John Walter-RCRV, Ship Inspections; Kandace Binkley-Ship Condition Form.

Dolly-"Resident Expert"-Assist with ARRV, RCRV and Alvin replacement.

SSSE- \$2M funding. Potential purchases: fleet 77's, SCBAS, Turn out gear.

<u>Ship Inspections</u>: All ships will be completed by end of the year. Ships remaining: Cape Hatteras, Atlantic Explorer, Wecoma, Barnes. Contract for inspections was renewed in March 2008 of this year. Will be up for renewal again in 2010.

Regional Class R/V Design Effort and ARRV – Matt Hawkins.

<u>RCRV</u> - Regional Class Research vessel-Phase I extended to 30 April 2008. Two teams-Dakota Creek and Nichols Brothers. Extension requested and awaiting court approval. Costs are 50-60M per ship when fully outfitted. NSF remains committed to RCRV but likely fewer than three ships.

<u>ARRV</u> - Alaska Region Research Vessel-currently \$0 dollars for 09 for any MREFC funding.

<u>Construction Progress on UMCES (Univ. of Maryland Center for Environmental Science) vessel</u> <u>http://www.umces.edu/vessel/</u>- Bruce Cornwall See Appendixes XXVI(a) and XXVI(b)

<u>SWL Estimator spreadsheet</u> - Rich Findley. See appendix XXVI. Discussion about data recording, what is recorded, how much data, how will it be used? Need to refine this in our standards. In the SWL standards make a statement about taking a wire out of service that has been subjected to tension greater than the 2% yield point. Clarify when to use ABL instead of NBL in the definitions section of the Appendix A. Delete the words allowing written permission to go below 1.5 to 1 FS.

• "Chapter 7 - Cable and Winch Documentation" from the UNOLS Winch and Wire Handbook, Third Edition - Rich Findley

<u>2007 Wire Break Test Results</u> update on the purchase of electromagnetic non-destructive testing equipment – Rick Trask. See appendix XXVII. Need samples and wire train information from more operators. Need to decide what is the best methodology and change if needed.

ONR & IWG-F (ex-FOFC) – Bob Houtman – Reviewed 2008 funding changes and improvements over the course of the year. 2009 funding still \$10M, but opportunity for some fuel money. Also, use of the US Navy Supervisor of Salvage's pollution response and salvage services for casualties involving Federally owned vessels- on paper does not look like an option, unless it's a local issue. JSOST is asking the IWG-F to do an inventory of current and planned infrastructure that would support the Ocean Research Priorities Plan. Infrastructure that is either owned by federal agencies or a majority funding comes from federal agencies. Identify gaps between what is required by the ORRP and the inventory. Formulate a plan for filling those gaps, what it would take. Bob Winokur has received the terms of reference from JSOST for doing this study.

<u>NOAA</u> – Status report on Okeanus & NMFS Fisheries Vessels- Captain Emily Christman, NMAO Marine Operations Center. See appendix XXVIII. Reviewed changes to NOAA fleet. Budget for ship operations \$3.3M- 2.5% below. SWATH ship Ferdinand R. Hassler delivery date is March 2009.

<u>USCG</u> – Jonathan Berkson –3 polar icebreakers. Review the status of the icebreaker fleet. *Polar Sea* currently underway for training and marine mammal survey in the Arctic. *Polar Star* in caretaker status. *Healy* is underway for the summer.

<u>Western Flyer Grounding Report</u> Close encounters with a granite rock. What went wrong, what went right? – Chris Grech (MBARI) See appendix XXX. Right-quick response, local diver in water in 6 hours, good weather, underwater epoxy, oil absorbent material onboard, maintained position. Lessons learned:

don't forget drug testing of all parties involved, appropriate diving capabilities onboard, know dewatering pump capacities, avoid any pollution at all cost.

THURSDAY, 24 APRIL 2008

0830 <u>Canadian Shipping Act- 2001</u> (Response plans, etc.) – Daniel Schwartz. See appendix XXXI. Must have contract with oil spill response company. Western Canada- Burrard Clean Operations (www.burrardclean.com) . Eastern Canada: Atlantic Emergency Response Team Inc. (ALERT), Eastern Canada Response Corporation (ECRC) and Point Tupper Marine Services (PTEMS).USCG requires vessel operator must have a certificate and documented contractual arrangements with Alaskan OSRO'S. Existing contracts with OSROs: National Response Organization and Marine Spill Response Corporation. Also, two new OSRO contract for Alaska are Alaska Chadux Corporation and Southeast Alaska Petroleum Resource.

<u>Transportation Worker Identification Credential (TWIC) update</u> – Mike Prince, Woods Hole, Harbor Branch, Scripps, and Univ. of Hawaii are only UNOLS facilities that have security plans. Will have to comply with TWIC regulations in 2009. Crew berths are restricted areas scientific berths are not. Idea is to not have restricted areas on ship otherwise will have to escort scientist in restricted areas. Minimize restricted areas if at all possible. Mariners are subjected to TWIC not ships. Foreign ports do not care about TWIC, they want to see vessel security plan. Federal Government Card should be same as TWIC card.

Van Pool East Coast - Steve Rabalais. See appendix XXXIII.

Van Pool West Coast – Pete Zerr. See appendix XXXIII.

<u>Crew and technician retention effort</u> (brainstorming and prioritization of actual actions) Stewart Lamerdin & Mike Prince. See appendix XXXII. "Where do we come from? What are we? Where are we going? (Gauguin, 1897). Discussions on recruiting and retaining qualified crew and technicians. Survey completed in March 2008. Biggest issues: salaries, high cost of training, lack of confidence in long-term viability of the UNOLS fleet, regulatory and operational demands, shore jobs in future, shrinking and aging workforce. Need to assess how industry is dealing with these same problems. Salary survey, more comprehensive. Table of near misses of cruises that almost could not happen or run short. Possible Solutions: investing in people vs. investing in equipment, possible sharing of relief personnel, promotion of UNOLS fleet, reduce other operating costs.

<u>Straight scoop about new California laws and regulations.</u> – Tom Althouse See appendix XXXIV. Financial Responsibility Insurance. Oil Response contracts in place in case of accidents. Can only buy CARB diesel fuel in California but not if you go to foreign countries. New regulations do not affect West Coast operations.

<u>Straight scoop about East Coast laws and regulations.</u> – Tom Althouse. Areas are starting to become zero discharge areas. Need to pump off sewage and bilges. Put port-a- potties on back deck?

Post Cruise Assessment Reports and Safety Statistics - Mike Prince. See appendix XXXV.

<u>Code of Conduct</u> - powerpoint Dennis Nixon-RVOC voted to have Pete Zerr present the ISOM Code of Conduct to the UNOLS Council with a statement that RVOC endorses this document, but that in this country, it can only be effectively adhered to with support form the scientific community and the Federal agencies.

Motion carried by a show of hands the RVOC voted to have Pete Zerr present the ISOM Code of Conduct to UNOLS Council.

<u>Round Table Discussion</u> (Marine Superintendents only)

<u>ISM</u>- Codes are starting to be mentioned in personnel injury cases. Ships should have everything in safety management plan.

OSRP-Oil Spill Response Plans for all vessels. Have oil spill drills.

Medical Services Contract-Will renew contract.

<u>Sexual Harassment Training</u>- Do we require training for scientist and PIs? Make part of safety briefing. Crew gets training in STCW. Each institute find out what policies are in use.

<u>Safety Committee actions</u> – RVSS revision approval. Asked everyone (especially uninspected vessels) to scan RVSS for any comments. Will approve in near future.

<u>Safe Working Loads</u>- open discussion on safety factors. Possible winch training for crewmembers. Boat crews regularly are "going out on a limb" for scientist. Each vessel should make up their on guidelines and stick to them.

Review of Action Items Pending

Assignments to Committees: Billy Giocondo assigned to safety committee.

Suggestion for 2009 agenda: email suggestions to Pete. Suggestions for specialist for wire rope, employee pool and hire a headhunter for all UNOLS vessels.

Nominations and vote on 2009 meeting location: University of Texas, Port Aransas and LUMCON were nominated. UT was selected.!!!