

Meeting Minutes

2007 Research Vessel Operator's Committee Annual Meeting

April 24-26, 2007

Florida Institute of Oceanography

830 First Avenue South, Marine Science Building

St. Petersburg, Florida 33701

Appendices

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TUESDAY, 24 APRIL 2007

0830 – Welcoming Remarks: Tim Askew, Chairman, RVOC welcomed members and guests and recognized the 46th annual RVOC meeting. Welcoming Remarks were made by Randy Maxson, Marine Superintendent.

Dr. John Ogden, Director, FIO. 11 years ago on St. Petersburg. Hopeful that current political climate in Florida are supportive of marine research and education. FIO established by board of regents 35 years ago. Stand-alone entity within FSU. Goal is efficient use of facilities at reasonable cost. Fully utilized 120 days of ship time per year. Challenge is balancing increasing operating cost and funding science. Endorsement from State of Florida state allocation for new coastal research vessel to replace *R/V SUNCOASTER*. Specialized niche serving Florida institutions.

0850 – Guest Scientist Presentation: Dr. Rick Cole, USF College of Marine Science, Florida Institute of Oceanography. Presentation on collaboration with UNOLS and brief history of FIO and future direction. Ocean Circulation Group (OCG) funded by NSF, ONR, NOAA, MMS and other agencies and entities. Integrated buoy array on west Florida shelf. [See [appendix III](#)]

0915 - Old Business:

Minutes 2006 Meeting accepted by membership.

Group Purchase Updates for 2006/2007:

Utility Boats – Joe Malbrough: Start production in early June. 3 boats being purchased.

Stability – Tom Althouse: 2 year period (2005/2006). [See [appendix IV](#)]. 9 vessels total – all classes. Projected at VCG increase of 6” in 15 years. Preliminary data shows that VCG will DECREASE at 3” per year - perhaps due to weight added down low? More data analysis/evaluation necessary. Glosten Ship Stability Programs (GSSP) for vessels that need them.

Safety Committee to incorporate recommendations for periodic dead weight survey and inclining into new RVSS.

Personal Locating Beacons – Joe Malbrough: Delivered in early Feb 07 and distributed to 4 vessels as “pilot project”; R/V Pelican, R/V Revelle, R/V Wecoma and R/V Oceanus. NSF insists on report on findings in preparation for additional group purchases. At the time of the meeting, operators still in process of getting operational. Operators to complete and provide feedback. Very wise to do pilot project as few problems persist. Poor wiring diagrams and problems with range from ship to wearer. Some

equipment had to be sent back. Manufacturer: SeaMarhsal. [See [appendix Vb](#)]

Crane Monitoring Systems – Al Suchy: Purchased for 8 vessels (ATLANTIS, KNORR, OCEANUS, WECOMA, SAVANNAH, REVELLE, MELVILLE, NEW HORIZON). All systems delivered by June 2007. Big advantage of these systems – reliable information on crane load parameters. Direct readout of boom position and load. Safer, more reliable crane operations at reasonable cost. Systems DO include an anti-two blocking. Knuckle boom/articulated cranes more complex than standard straight boom cranes. [See [appendix Va](#)]

Wise to consider having a 3PS, Inc. service tech help with installation and integration.

Simplified Voyage Data Recorders (SVDR's) for Global Class ship on the horizon. Group Purchase proposed for SSSE in 2007.

0930 – New Business: [NONE]

0935 – Committee and Liaison Reports:

UNOLS – Mike Prince, Executive Secretary: [See [appendix VI](#)] UNOLS mission, goals, and objectives.

In review of specification for ARRV, pick section of interest and provide feedback. Needed as soon as possible. Rich Muller comments that he sent to internal ship review committee at MLML to do as Mike suggested – review only piece of specification that's of interest.

Data management (timely fashion, readily available) rising to the top of the agenda. UNOLS Council to begin investigating.

Struggling with how to decide if/which ships to lay-up (either permanently or temporarily) as funding and utilization continue to decrease.

Rich Muller suggests that some PI's are not submitting proposals because they have heard that ship time is not being funded. However, proposals are still being funded for those that submit them

1000 – Break

Safety Committee – Tom Althouse: [See [appendix VII](#)] Major effort put into re-organizing and restructuring the RVSS. Develop things specifically required by RVSS as opposed to required specifically by regulation. New chapter on "Personal Safety". 80-90% complete. Target is to have complete by fall 2007 Council meeting.

UNOLS Safety Training Manual – recommend to take out pertinent/useful info and post as reference material on RVOC web site. More discussion to take place at Round Table.

Dennis Nixon suggests that it would be used as a personal injury lawyer if there ever were a problem.

Recommendation: Either update or renounce (get rid of completely.)

Chapter 1 – Scientific Supplement: Recommendation by Safety Committee is to take out pertinent/useful info and combine into new "Personal Safety" chapter. Produce also in brochure format.

Manning being investigated in a more detailed way and offer clarification in the RVSS.

Discussion of mandating periodic dead weight surveys and inclines

Wire SWL Standards and Load Handling System Design Standards to be discussed in more detail by the membership. Glosten to be employed to run example calculations.

Nomination of Todd Chlaupek, URI, as Chair-elect of Safety Committee.

Dan Schwartz discusses possibility of developing HOV standards, with ship requirements being part of the RVSS to establish “link” between documents.

Ship Scheduling Committee – Mike Prince: [See [appendix VIII](#)] 2007 down, but much better than predicted in July 2006. Busy in Gulf, addition of Navy and foreign-funded cruises. “Intermediates” in particular still below optimal utilization.

LOI’s for CY 2008 should be completed by May 15, 2007 – just before NSF panels meet.

Many more pending ship time requests than can be funded or supported with current fleet.

Recommendation – keep searching for sources of outside work. Lay-up considerations for CY 2008 need to be considered early on.

Recommend change in tenure of Chair and Vice Chair of the Scheduling Committee – similar to RVOC – Vice Chair automatically rotates into Chair’s position.

1100 – Committee and Liaison Reports:

FIC – Al Suchy: Working on fleet improvement plan for several years. In coordination with federal fleet renewal plan with that special UNOLS “twist” on what is needed to support ocean sciences. Science community trying to capture proper language that “captivates the public” on the need for fleet renewal and ocean sciences. How to best capture “demand” as well.

New Regional Class R/V’s – Now under 300 gross registered tons (GRT) and will be un-inspected as a result of discussions at UNOLS Annual Meeting in fall of 2006.

Operators have refreshed plans for Service Life Extension Plans (SLEP’s) for “Intermediates”. Important to note that NSF has not endorsed a funding plan for SLEP’s – report is just for information and planning purposes.

DESSC – Mike Prince: [See [appendix XI](#)]

Century and AID not done deal, transition period with funding possible in late 2008.

HOV – Dolly Dieter: [See [appendix XI](#)] Pre-bought ingots for sphere since titanium costs have increased 300%. Completion currently planned for mid-2010.

RVTEC – Bill Martin: Annual meeting last year held in conjunction with INMARTECH. Very well received by all and quite productive. 2008 meeting in November at MLML and will follow the normal format.

AICC – Dan Schwartz: [See [appendix XII](#)]

SCOAR – Mike Prince: [See [appendix XIII](#)] Investigations underway to tow miniature guided kites/parachutes behind ships. Looking for feedback on doing this from vessel operators.

MLSOC – Mike Prince: Committee first met last summer in Galveston in conjunction with ship conversion. Input on scientific manning structure. Assist in providing info and support on science shake-down. Next meeting at AGU in December 2007.

1100 – Agency Reports:

NSF – Dolly Dieter: Change in Personnel. Larry Clark has announced his retirement in May 2007. Integrative Programs Section Head down to four candidates – interviews shortly. Geosciences Search for Margaret Leinan's replacement underway – 30 candidates.

Continuing resolution with federal budget has hurt greatly. No formal response on ARRV from Congress. Working in the dark on budgets for this year. Very little chance of a CF – used in other programs. All programs hurting.

Linda Goad (via phone) – trying to get NSF funding out the door. Delays downstairs with new personnel and system.

ONR – Bob Houtman: Has budget and spending happening. Spending level the same as last few years. MELVILLE taken out of standard UNOLS scheduling process – used specifically for Navy projects. Funding level at ONR for research facilities is projected to remain level compared to past couple of years. Just below \$10M plus additional \$2M from other navy divisions (NRL, etc.).

Past plus-ups (congressional adds) for ship upgrades and conversions. Futures pluses may go to help support ship operations. Up to \$4M in pluses this year.

Like NSF, Navy days lower because vessel operating cost is higher.

NOAA/IWG-F (ex-FOFC) – Beth White: NOAA continuing resolution hurt utilization of both NOAA and use of UNOLS fleet. Projection for 2008 perhaps a little bit better.

OKEANOS EXPLORER under conversion at Todd Shipyard, Seattle. Complete in late 2008. Home ported in Rhode Island. Dedicated “ocean exploration” vessel.

SWATH being built by Halter Marine – replacing *RUDE*. Home ported in New Hampshire. 120 feet LOA. Delays due to new EPA requirements for engines being used.

FSV (DYSON, BIGELOW): Lot of difficulty with propulsion motors – now operating

New FSV PICES to come on line shortly.

FSV #4 will be called the Bell Shimada.

FSV's 5 & 6 - Discussions with OMB for analysis on alternatives. What is cost of operating older vessels into the future? Net Present Value report showing newer vessel is cheaper alternative to running older vessels. Attempted to put “value” on science being conducted. Hold placed on fleet renewal plan while doing this.

Funding plan in place for replacement of ~30 survey launches.

Interagency Working Group – Facilities (IWG-F): The “new and improved” FOFC. Developing fleet status report. Second meeting to take place Ocean Research Priorities Plan and what can be done to support. Unique assets – what will happen if they go away?

Bob Houtman - Must show that federal agencies are coordinating and cooperating. OMB said any plan was committing the government to future funding – thus the transition to a “status report”. Only renewal allowed to be shown are those that are currently in the funding pipeline. Important function of FIC Fleet Improvement Plan since not as restricted as IWG-F status report and can be included as part of that report. No conflicts. FIC report must prove that ship option is viable and provide specific reasons.

Dolly Dieter – because of OMB, need to include funding and justification for the science side if ships are going to move forward.

1200 – Lunch

1300 – Special Reports

USCG – Jonathan Berkson: Recent personnel changes at HQ. LTTCG Lisa Knapp to be CO.

HEALY Ops. Eastern Bering Sea. Working on first of two NSF-funded biological cruises. NOAA-funded multibeam cruise later in the year.

Replacement of polar icebreakers. Reaching end of design life. USCG and NSF investigating options for replacement. Report issued on future needs. Specific recommendation – two (2) new ice breakers needed to support US interests at the poles.

State Department – Liz Tirpak: General discussion of need for State Department involvement in research vessel ops. Goal is to reduce “red tape” for operators. State deals with Law of the Sea issues for research vessel operators.

112 cruises in 2007 requiring 300 clearances. Only 8 denials (for various bureaucratic reasons).

Hints and recommendations:

- C/c Liz on all e-mails to embassys.
- Though some countries more flexible - 6 month lead time required for clearances.
- For cruises in multiple EEZ's – submit only ONE form listing the multiple countries.
- Security considerations/information listed on State Dept. web site.
- Certain countries have specialized forms. Submit on standard US State Dept. form, but check web site to see if any additional required.
- If time permits, make a port call in foreign ports to support public outreach. Embassy will support.

New data base going through final beta testing starting at the end of May, 2007. All electronic forms. Will be able to check status of application online. Approvals will come as PDF. Post cruise reports will be submitted through the online form. Public will have access to search records.

Representatives from Foreign Countries

NATO(NURC) – Ian Sage: [See [appendix XIV](#)] Recently changed to NATO Undersea Research Center (NURC)

NIOZ – Marieke Rietveld: [See [appendix XV](#)]

ERVO & ISOM – Per Nieuwejaar: [See [appendix XVI](#)]

New Norwegian ice-going vessel in the planning process – on line in 2012. Agrees on the emphasis of science need when talking about fleet replacement.

Spain very aggressive on new ship builds these days.

European Research Vessel Operators (ERVO).

Possible Future RVOC topic – Energy Management Systems (improving fuel consumption). Installed on one research vessel. 8 year pay-back period. 2007 ISOM Meeting in China. Extended to three days due to number of topics to be discussed.

NERC – Geraint West: [See [appendix XVII](#)]

High praise given to ODIM winch system.

\$120M allocated for DISCOVERY replacement by 2011/2012 (49 years old).

Bubble sweep down problem with *JAMES COOK*.

Research Vessel Updates

Alaska Region Research Vessel (ARRV) – Dan Oliver/Dolly Dieter: Not yet funded. Much information still proprietary with proposal still under review. OMB deeply involved to ensure no budget overruns - either operating institution to come up with more money or ship capabilities to be cut.
<http://www.sfos.uaf.edu/arrv/constructdesign/index.html>

R/V MARCUS LANGSETH update – Mike Prince: See photos of ship in Galveston, TX. Underway for testing of DP system and multi-beam in early June 2007 followed by NSF inspection. Additional inclining to be done. Issues remain with re-flagging and with ABS. Two month period for shake-down of 3-D seismic. First science cruise in September 2007 – subject to many things going right.

Regional Class R/V Design Effort – Dolly Dieter: Initial design grew to 175' and cost prohibitively high. Stop Work Order instituted. Added ADA and quiet ship parameters. Work has re-started. 300 registered gross tonnage (domestic) cap instituted. New higher cost cap instituted. If still over cost – project will not proceed under current funding plan. May have to “de-scope” project. OMB looking closely at this project.

Next design review for phase 1 between June and August, 2007.

Call for proposals to operators not in immediate future – need to resolve construction issues first.

Ocean Class Design Effort – Bob Houtman: Decided that “right number” is two Ocean Class vessels – not four. Navy has moved ahead with budget requests. Requested under navy ship construction budget - as opposed to research budget. NAVSEA to begin looking at vessel requirements with input from FIC version of “Science Mission Requirements”. “Milestone A” decision (green light to proceed) planned for October 2007. Design over next two years. Construction funds for first ship in FY 2011.

Post Cruise Assessments and PCA results – Mike Prince: [See [appendix XVIII](#)] Downward trend in Chief

Scientist reports received in 2006. Bias in data that shorter, routine trips not being reported – should this be weighted? Analysis shows little effect.

Safety Statistics and MAS/Medaire – Mike Prince/Bill Mahaffey: Lost time accidents remains well below industry averages. Nature of injury is right in line with the maritime industry as a whole. Muscular skeletal is number 1.

Re-worked outdated medical kit inventories. Complete review on current standards of care – 16 months. Comments/Complaints from the ships:

- Too much on board
- Throwing too much out
- Hard to get in certain parts of the world
- Too expensive.

2006/2007 medical kit “formularies” are available. First line antibiotics change routinely.

Maritime Inventory Control System: [MICS] – set bags of items that expire. WHOLE BAG expires. Free shipping both ways. Color-coded bags – “coastal” and “ocean” kits – tailored for commercial vessels with smaller crews – not a bunch of scientists. No controlled substances. HBOI now using - other institutions starting to talk about it.

World-wide shipping of controlled substances – problem in some parts of the world.

Van Pool, Group Purchases, and Standards – Matt Hawkins

University of Maryland R/V Update – Tim Askew

1520 - Break

1540 – Insurance and Admiralty Law Update – Dennis Nixon: [See [appendix XIX](#)]

Insurance premiums should remain constant in 2008 due to large profits in 2007 – particularly with Lloyds. Operators should begin discussions about a rate reduction.

Designated Persons (DP) insurance – new on the market. No word yet on rate structure. Shift of responsibility from the Master to the shore-side support personnel.

International Marine Research Code of Conduct under development.

1640 – Adjourn

WEDNESDAY, 25 APRIL 2007

0830 – Dave Shoemaker – F/V Galaxy Disaster:

Lessons Learned:

- Communication is critical – w/o information you are sunk.
- Crews have limited memories after the fact.
- Document everything you do – keep copy ashore. Ensure that it is indeed being kept, archived, and properly handled. Make sure it's being handled as good as you THINK it's being handled.

- Nobody properly trains for more than one major emergency within 4 minutes (Fire, MOB, Flooding, Injury, abandon ship, etc.). Doing so should be considered by vessel operators as this has a distinct possibility of happening.
- “Conscious Incompetence” is a major problem.
- Fight the urge to panic and give up. Panic effects everybody differently.
- Who is the second in command? Contingency plan for lost comms – or loss of the Master.
- Who is allowed to trip the CO2? Chief Engineer?
- Never give up.

Beth White: NOAA has copy of Dave Shoemaker’s presentation on DVD and will send a copy to the UNOLS Office for distribution to operators upon request (with permission from Dave Shoemaker).

1130 – Continuation of Special Reports and/or Research Vessel Updates.

1200 – Lunch

1400 – Continuation of Special Reports and/or Research Vessel Updates

1430 – Transportation Workers Identification Credentials (TWIC) – Eric King [See [appendix XX](#) and [appendix XXI](#)]

Biometric credential for all workers having access to marine facilities. Will be more extensive than currently required to get on a military facility. Applies to ALL credentialed merchant mariners. New Hires OK – but will need w/in 30 days but must apply and have a positive initial name-based access. System in place by September 2008.

Dennis Nixon: Upon review of the regs, he believes that by omission we are not subject to the TWIC requirements. Suggests that RVOC approaches USCG suggesting that we are exempt due to being “government owned” and “non-commercial” status.

Ian Sage: Agrees that we should pursue “government owned” exemption – just like with *ALLIANCE* coming to US and other ports in Europe.

For vessels that do not require Facilities Security Plan – should only have to worry about documented mariners on board.

“Government-Owned” does not have to claim “Public Vessel” status.

Todd Chlaupek (URI) – Feels there is no way to enforce every part of the VSP or FSP w/o going broke. Suggests forming working group on this subject to decide formal direction for UNOLS fleet and develop action plan.

1540 – Winch & Wire Update (wire testing, FO cable and inventory) – Rick Trask: [See [appendix XXII](#)] A

Action Item: Review towing industry standards for towing hawsers. Eric King to research.

Tom Althouse - Cyclical loading tests most useful over a rolling sheave, as well as the break test over a rolling sheave, load during rolling test would be set to what we want it to be.

1600 - Wire and Cables Safe Working Load (SWL) – Matt Hawkins: [See [appendix XXIII](#)]

1700 – Adjourn

THURSDAY, 26 APRIL 2007

0830 – Lean Six Sigma for Ship Operations Presentation – Bahadir Inozu, Novaces, LLC.

Quote of the day: “You can choose not to change – you just can’t do it here!”

1200 – Lunch

1300 – Round Table Discussion: (Marine Superintendents and Program Managers)

Ship Inspection Program – Dolly Dieter: Send entirely electronic info to inspectors - scan in all documents as PDF. JMS will continue with inspections – October 2008 begins second year. SCF continually under review and refinement. Operators need to be more timely with reports – w/in 90 days and annual. E-mail copy of annual to Dolly and NSF person in attendance. Need complete list of PCA’s for the inspection – UNOLS Office can compile/provide.

Future Group Purchases – Dolly Dieter: Person selected to do group purchase needs to have at least 2 quotes, 2 vendor sheets – and why you chose which one. On group purchase items, operators should include specifics about how the equipment will be used or effect their vessel – not just generic boiler plate. Show how it pertains to YOUR ship. Include how group purchases will meet federal inventory requirements.

IPA to be hired in Facilities Section to assist NSF with ARRV. All persons interested should get in touch with Julie Morris.

Mandatory Agency Reports – Linda Goad:

Annual awards are being held up by routine reports – final reports, quarterly reports. Make sure to submit via FastLane.

Keep schedules current with periodic updates.

Submit LOI’s for 2008 as soon as possible.

Clean up annual reports – sloppy this year. Make sure to follow proper format and include all that is requested.

New UNOLS scheduling system – Mike Prince: Detailed overview and demonstration of new scheduling system provided to operators. Beta testing complete. Operators to begin using for LOI’s in 2008.

Medical Services Contract – Mike Prince: If operators have any problems, please let UNOLS Office know – others may have a similar problem.

Safety Committee Actions (RVSS) – Tom Althouse:

Dan Schwartz to forward draft Chapter on HOV Safety Standards to Safety Committee.

For RVSS to go to Council for approval, it will require RVOC approval first.

Still looking for interested members on Safety Committee.

TWIC:

- *Motion to seek fleet-wide exception as government-owned/non-commercial vessels - except for licensed/documentated mariners.*

Motion carried by a show of hands.

Safe Working Load Standards – Matt Hawkins: Assignment of members to certain sections for final review/comment following meeting. Overall review by George Batten, UK. Vote via e-mail.

Wire Testing:

- *Motion to have all operators immediately begin routine testing of cable samples with Rick Trask per the draft wire SWL guidelines (Section 6.0)*

Motion carried by show of hands.

Discussion: Other test sample facilities may be less expensive. However, WHOI already funded by NSF and will provide consistency of results and reporting.

- *Motion to have Rick Trask complete cyclical load testing of 9/16” trawl wire per presentation.*

Motion Carried by show of hands.

Discussion: Test as close as possible as possible to 40:1. Lower diameters not useful because new Wire SWL Standards will prohibit this for low FS.

- *Motion to have Rick Trask proceed with purchase and implementation of the electro-magnetic, non-destructive testing equipment for use in the UNOLS fleet.*

Motion Carried by show of hands.

Discussion: Concerned if it is going to truly work and provide accurate data. No way to determine now – best way to find out it to proceed.

Letter of Designation – New Interpretation:

Local operator in California using RV status to get around T-boat rules. Local Captain of port in California (OCMI/L.A. Longbeach) made broad statements that do not meet ORVA. **However, (per Dennis Nixon) students are NOT passengers when they are learning things as part of a course – their classroom just happens to be afloat.** They are paying for an education – not a boat ride.

Dennis Nixon recommends that the cutoff for carrying students is that they must be part of a regular college program. AP classes in high school for college credits MAY also be OK. “Line in the sand” should be between high school and college.

Mike Prince: “...Instruction in Oceanography..” is not clearly defined. However, we don’t want to give the impression that we are using the ORVA to get around regulations.

ORVA (Oceanographic Research Vessel Act)

- Vessel construction standards (NOT “passenger vessels”)
- Jones Act not available for “scientists” – new category not “passenger” or “seaman”. They are “other persons” – scientists & sailing school trainee per statute.

Problems occur when institution or operators use of RV status when not engaged in research or instruction as contemplated by the law.

Institutional small boat fleets: Need formal program for organization, safety, and training of students who operate small boats. These are work boats, NOT “designated research vessels”.

Anything we need to do as RVOC? Nothing – issue being clarified and USCG California backing down on their prior ruling. Need to simply speak and maintain a “uniform voice” on this issue when/if it comes up. Let UNOLS Office know if there are any problems with renewing your Letter of Designation.

Other Topics of Discussion:

For Global ships, USCG “High Threat Areas” – need to upgrade vessel security plans.

“Exclusion Area” in insurance policies for high risk area. May have an impact on science ops if insurance cannot be obtained.

1530 – Business Meeting:

- Nominations and Election of Vice Chair / Chair Elect

Nomination of Pete Zerr

Pete Zerr voted in by show of hands.

- Assignments to Committees:

Todd Chlaupek chosen as Chair-elect for Safety Committee

- Review of Action Items Pending:

1. Final Review of RVSS [Safety Committee, UNOLS Office]
2. RVSS Safety Training Manual – The Safety Committee has determined that this manual is obsolete. **By show of hands, RVOC members officially renounces this document as obsolete and will no longer be used or referenced.** UNOLS Office to send e-mail to all operators to see if they would use it if revised.
3. Final review and membership approval of UNOLS Wire Safe Working Load Standards [Matt Hawkins]
4. Glosten to run example calculations comparing Sub-Chapter U and ABS design standards [M. Hawkins, T. Althouse, Glosten]
5. Operators to begin routine wire testing with Rick Trask [All]
6. Investigation of towing industry standards for hawsers [Eric King]
7. Pursuit of TWIC exemption [Eric King, Dennis Nixon, UNOLS Office]

- Suggestion for 2008 Agenda: [To be done via e-mail]

- Nominations and vote on 2008 meeting location:

NURC/Italy – Ian Sage. Vessels working on world-wide basis. 60% of operating budget comes from US government. NURC works closely with ONR, NRL, etc. RVOC held previously in foreign locations such as Mexico, Bermuda, and Canada. Delta (US carrier) does direct flight so cost would be reasonable.

ODU (NOAA/Norfolk)

Catalina Island

LUMCON

Miami

Duke

Further investigation and vote to be done via e-mail.

- Nomination for UK Marine Facilities Review Group (MFRG) – Geraint West. Representative currently Matt Hawkins. Description of MFRG. Primary qualification is background and interest in serving. Send e-mail of interest or possibly nomination to Geraint.

Geraint West highly recommends that RVOC Chair goes to ISOM since it deals with ship operating issues – not funding agencies. Would be highly beneficial to all parties.

1700 – Adjourn