

The UNOLS Council
The University of South Florida
Marine Science Lab – Room 134 (Conference Room)
St. Petersburg, FL
February 7-8, 2008

Meeting Minutes

Executive Summary:

The UNOLS Council met at the University of South Florida on February 7-8, 2008. The first day of the meeting included a joint session with the Fleet Improvement Committee and focused on Fleet utilization and renewal efforts. Agency representatives reported on budget projections and facility acquisition efforts. UNOLS goals and priorities were discussed. The Council endorsed the Americans with Disabilities Act (ADA) Guidelines for UNOLS Vessels. Other meeting discussion topics and presentations included codes of conduct for marine scientific research vessels, crew and marine technician retention and hiring issues, data management best practices, and committee activities.

Council Action Items:

New actions:

1. Annual Meeting Keynote Presenter – Contact Bob Gagosian, President of Ocean Leadership. (Marcia McNutt)
2. UNOLS Dues:
 - Increase dues as follows: \$150 operator, \$50 non operator. (Kate Sawyers)
 - Follow-up with institutions that are delinquent in payment. (Marcia McNutt)
3. Request for Proposals to Host the UNOLS Office – Letters of Intent are due on March 5th.
 - Request proposals in the Fastlane form and provide additional information about the budget areas. Proposals are due on May 16th. (Mike Prince)
 - Form an Evaluation Committee. Committee recommendation is due on Sept 15, 2008. (Marcia McNutt)
4. Harassment at Sea – Draft a proposal for RVOC to consider regarding online training provided through UNOLS (Marcia McNutt & Mike Prince)
5. Radio Frequency Spectrum Use:
 - Post the RVTEC report to NSF (dated 11/07) on the UNOLS web site along with the survey form. (Office)
 - Provide NSF with the URL for the RF Survey form. (Office)
 - Continue efforts to gather data on RF spectrum use. (RVTEC Subcommittee)
6. HiSeasNet Shadowing Problem –
 - RVTEC should work with the HiSeasNet group on solutions. Operators should be polled to determine the demand for 24/7 connectivity and bandwidth requirements. Based on the poll, consider a proposal for a mobile HiSeasNet unit. (RVTEC)

- SMRs should be revised to address HiSeasNet antenna placement. (FIC)
7. Transportation Workers Identification Credential (TWIC)
 - All technicians should be required by their operation/institution to get TWIC.
 - Recommend that all Chief Scientists normally sailing out of secure facilities get TWIC.
 - Broadly distribute the recommendation to the community. (RVOC, RVTEC, UNOLS Office)
 8. Annual meeting – schedule the meeting with the same format as last year. UNOLS Office will poll Council, FIC and Agency reps for dates.
 9. Schedule June/July summer phone meeting. (Office)
 10. 2008 Council Slate – The Nominating Committee will prepare a slate of candidates.

Continuing Actions:

11. Crew and Marine Technician Retention and Hiring Issues – The RVTEC and RVOC will present proposed solutions to the Council. Their efforts include carrying out a salary survey (Hawkins, Martin, Zerr, and Lamerdin).
12. Ad hoc Committee on Data Management Best Practices – The ad-hoc committee will carry out their charge in accordance with their approved terms of reference.
13. Global Class Science Mission Requirements – Update the Global SMRs using the new format (Regional/Ocean Class template) and consider the community input that was received. (Mike Prince)
14. RVOC Safety Standards – Complete the draft RVSS Update (Safety Committee and Office).
15. Code of Conduct for Marine Scientific Research Vessels – ISOM adopted the code on a volunteer basis. Encourage Geraint West to send the Code to the US agency reps. (Office)
16. Continue Review of PCAR - Mike Prince will provide materials to the PCAR committee and resume the review process.
17. SCOAR Chair – Mike Prince will work with the Committee and Agency reps to find a new SCOAR Chair.

Resolutions, Appointments, and Motions:

- The Council passed a resolution thanking Beth White for her service to UNOLS and wishing her well in her future ventures.
- American's with Disabilities Act (ADA) Guidelines for UNOLS Vessels – The Council approved the ADA Guidelines.

- The Council passed a resolution thanking Dolly Dieter for her tireless efforts in support of the Academic Fleet and UNOLS and wishing her well in her retirement.
- The Council appointed Pete Zerr as acting RVOC Chair and directed him to select a permanent Chair and if necessary vice chair.
- Transportation Worker Identification Credential (TWIC) – The Council passed the motion to accept the RVTEC/RVOC recommendations that:
 - All Technicians should be required by their operation/institution to get TWIC.
 - All Chief Scientists normally sailing out of secure facilities should get TWIC, otherwise science mobilizations/logistics may be jeopardized.

Appendices:

I.	Agenda
II.	Participants
III.	Ship Scheduling Report
IV.	NOAA Report
V.	Fleet Improvement Committee - Meeting Summary Report
VI.	R/V Marcus G. Langseth Update
VII.	Alaska Region Research Vessel Update
VIII.	Interagency Working Group on Facilities Report
IX.	International Cruise Information Database and Web-site - POGO
X.	Consortium for Ocean Leadership
XI.	Committee Status Report on Best Practices for Data Management
XII.	Radio Frequency Spectrum Use - Report from RVTEC
XIII.	FIC - Fleet Improvement Plan - Draft Findings and Recommendations
XIV.	AICC Report
XV.	RVOC Report
XVI.	RVTEC Report including Recommendations regarding HighSeasNet

Day 1 – Thursday, February 7th

Call the Meeting: The UNOLS Council met on February 7-8, 2008 at the University of South Florida (USF) in St. Petersburg, FL. Marcia McNutt, UNOLS Chair, called the meeting to order at 0830 and provided an opportunity for introductions. The meeting agenda was followed in the order recorded in these minutes. The meeting agenda is included as *Appendix I* and the meeting participant list is *Appendix II*.

Dr. Hogarth, Interim Dean of the College of Marine Sciences at USF, welcomed the UNOLS Council and Fleet Improvement Committee to USF.

Accept Minutes - Peter Wiebe identified typos on pages 5 and 6 of the October 2007 Council Meeting minutes. The Council approved a motion to accept the minutes with the correction of the two typos (Peter Wiebe/Bob Collier).

UNOLS 2008 Fleet schedules, estimated operation costs, and 2009 ship scheduling –Stan Winslow, Ship Scheduling Committee (SSC) Chair, provided a report on the status of ship scheduling. His slides are included as *Appendix III*.

Stan gave the evolution of the 2008 scheduling process. In the summer of 2007, the 2008 ship schedules picture did not look good with a ship day total of 3125. ONR decided that none of the Navy ships would be laid up in 2008 and all Global/Ocean schedulers were told to develop 220 ship day schedules. All schedulers were told to seek out additional sources of funding for research cruises.

By September 2007, the 2008 ship schedules had improved. The schedulers trimmed their budgets. The funding agencies had obtained additional funding and some outside sources for research funding had been found (Saudis, Germans, and mining). *Seward Johnson* was able to add about 150 days. The schedules continued to be refined before finalizing in January 2008. Overall, the approved 2008 schedules were a big improvement over the summer 2007 versions.

Stan presented a slide showing fleet operating costs from 2002 to 2008. Operating costs are increasing dramatically and ship day rates are climbing faster than the government budgets that fund them.

Linda Goad commented that the scenario of finalizing the schedules in January of the operating year will become the norm and to plan on it again next year.

Ship time requests for 2009 currently total 2935 days. In 2009 two large ships will be needed in the Western Pacific.

Agency Reports:

National Oceanographic and Atmospheric Administration (NOAA) - Bill O’Clock provided the NOAA report (*Appendix IV*). He provided an update on the FY08 budget. The FY08 enacted appropriation is ~\$3.3M (2.5%) below the President’s Budget for ship operations. The funding shortfall will like result in a reduction in days, not cancellation of cruises.

An update on NOAA ship acquisition was given. Pictures of the vessels and details of construction and conversion status are included in the slides. The *Ferdinand R. Hassler* is a SWATH vessel currently under construction. The delivery date will likely extend past the end of the contract delivery date of December 31, 2008. The ship will be home ported at the University of New Hampshire. Two other ships under construction are the Fisheries Vessels, *Pisces* (FSV 3) and *Bell M. Shimada* (FSV 4). The *Pisces* (FSV3) predicted delivery date is August 26, 2008. The *Bell M. Shimada* (FSV 4) contract delivery date March 26, 2009, but may slip. *Shimada* will likely be home ported in Seattle. *Pisces* will initially be in Gulf of Mexico, but once FSV5 is completed, *Pisces* will go to Woods Hole. The *Dyson* and *Bigelow* (FSVs 1 & 2), continue to experience technical problems. Both ships have had generator problems.

The USNS *Capable* (T-AGOS Class) was transferred from the Navy to NOAA in September 2004 and is being converted to an ocean exploration ship, *Okeanos Explorer*. The conversion was carried out in phases. The shipyard work is expected to be completed by March 31, 2008. An integration period follows dedicated primarily to installation, acceptance testing, and integration of the telepresence, VSAT systems, shipboard computer, and networking equipment. Ocean Explorations and Research's (OER's) remotely-operated underwater vehicle (ROV) will be installed and integrated with other ship systems. Following system integration, the ship will conduct a series of shakedown cruises through mid-summer 2008. For the remainder of the FY2008 and into early 2009, the ship will be engaged in field trials in the Pacific Ocean.

NOAA's ship recapitalization plan was discussed. The costs associated with the plan are very high. Ship time demand for future missions is estimated to greatly exceed future ship capacity. Ten ships are scheduled to go out of service by 2024.

Bill reported on personnel changes. Beth White retired from NOAA at the end of December. NOAA is searching for a replacement and has five candidates. Ralph Rogers has been transferred to the *Foster* as the Commanding Officer. Barbara Moore is on detail to the Department of State. Karen Kohanowich has been assigned as the acting Director of NURP.

The Council passed a resolution thanking Beth White for her service to UNOLS and wishing her well in her future ventures.

Navy – Bob Winokur gave the Navy report prepared by Bob Houtman. Total Navy support for the UNOLS Fleet in 2008 is about \$16M. The Navy scheduled work is now fully funded. Any new requests will be reviewed on a case by case basis.

The Navy NAVSEA program manager for the Ocean Class AGORs acquisition is Chris McDonald. He is currently working on the documentation for the acquisition program that should be approved through NAVSEA in the coming weeks. The acquisition funds are in the budget and Bob is optimistic that it will remain in the budget.

The Navy is building TAGS 66, a new survey vessel, as a follow on to the current TAGS vessels. \$117M was authorized for the TAGS 66 construction and additional requests for funds will not be allowed. Halter Marine will build the vessel as a modified repeat of the previous TAGS vessels.

Discussion:

- Dave Checkley asked what the Navy's interest in oceanographic ships is beyond the two Ocean Class vessels. Bob Winokur – The Navy is kicking off a process called Oceanography 2025 to look at their needs including infrastructure and facilities. They hope to move this process along aggressively and to be done in the next 12 to 15 months.
- Peter Wiebe mentioned the UNOLS Ocean Class hull study that evaluated the X-Craft, SWATH and monohull. The eventual conceptual design featured modular van space. He asked to what extent that conceptual design would influence the planning for the Ocean Class vessels. Bob Winokur - It is reasonable to believe that the effort from the X-Craft study will influence the

performance specifics. Peter asked if these ships would still be subject to being taken by the Navy for their use. Bob Winokur - He doubts it.

National Science Foundation (NSF) – Dolly Dieter provided the NSF report. There have been some NSF personnel changes. Julie Morris is the Division Director for Ocean Science and will be there for one more year. She could be extended for another year by invitation. The Ocean Section Head interviews have been completed and they are negotiating with the recommended candidate. An announcement of who that person is should be made soon. Dolly Dieter has been the acting Section Head for the Integrated Programs Section (IPS) for 15 months. Sixteen candidates have applied for the position. Human Resources will select four candidates by the end of February. Dolly will retire from NSF by March 31st. Matt Hawkins begins work at NSF on February 19th and will cover new construction projects. It has not been determined yet how Dolly's other responsibilities will be distributed (DESSC, Equipment, UNOLS, etc).

In total, there have been 25 new people hired at NSF, with 1.5 people for Geoscience in FY08. This same hiring level is expected in FY09.

The Major Research Equipment (MRE) account does not include new funding for Alaska Region Research Vessel (ARRV), Ocean Observatory Initiative (OOI) and NEON due to the requirement to have final design reviews and risk assessed cost budgets. The projects will spend the year responding to these requirements. The delays in the projects will result in higher project costs due to inflation. NSF will support the ARRV project out of the R&RN budget during 2008 while they prepare for the final design review. It is unclear how OOI will be supported this year, but funds are needed to keep the program office and implementation offices running.

The Regional Class acquisition design effort encountered delays due to the bankruptcy of Nichols Brothers (a shipyard of one of the design/build teams). The new shipyard owner wants to continue the contract, but this is up to the bankruptcy courts. A decision should be available soon regarding whether or not to accept a design from the new shipyard owner. NSF would like ship designs from both teams. NSF would own the designs and could use them whether or not they go forward right away with ship construction. The Dakota Creek Inc design should be done this spring. The mid-size infrastructure budget is somewhat flat, and costs are going up. NSF wants to still build three Regional Class Research Vessels (RCRVs), but they may consider fewer than three depending upon budget levels. It is unlikely that NSF will send out a solicitation for the ship operator before 2009.

The Replacement Human Occupied Vehicle (RHOV) design review is scheduled for 20-21 February at NSF. At that time they will decide whether or not to go forward with the vehicle fabrication project. The contract for fabrication of the sphere has been awarded. If the decision is made to not proceed with vehicle fabrication, the new sphere could be considered for use with *Alvin*. The RHOV batteries have been identified as one of the high risk factors in the vehicle design. Marcia mentioned that MBARI experienced a lot of problems using pressure compensated batteries with their vehicles. The batteries actually shrunk to the point that significant buoyancy was lost.

Break

Fleet Improvement, Facility Design, Construction, and Conversion Efforts:

Summary of FIC Meeting and Fleet Improvement Plan – Dave Hebert reported on the status of the Fleet Improvement Plan chapters. His slides are included as *Appendix V*. Most of the FIC meeting was spent reviewing the Fleet utilization projections and developing the findings and recommendations. The preliminary findings and recommendations will be presented to the Council later in the meeting.

R/V *Marcus Langseth* – Jim Cochran reported on the R/V *Langseth* conversion project, shakedown and calibration cruises. His slides are included as *Appendix VII*. The NSF certificate of ownership was transferred to LDEO in November. The sound source array trials went well. The seismic array trials had mixed results. The complexity of these cruises was extreme. One of the biggest challenges facing LDEO is hiring and maintaining the ship's personnel. Three contractors were hired to assist in the sea trials. Weather impacted their cruises; however, they were able to get a lot accomplished including data collection. Images of the various operations are included in the slides.

The 2008 schedule includes the following cruises:

- Holbrook -1 & -2 (MCS & OBS)
- McGuire (OBS)
- Mutter (3D)
- Gulick (MCS & OBS)
- Toomey (OBS)

LDEO hopes to carry out another short cruise to test the ship's 3-D capability before the Toomey cruise. In summary, they are confident in the air-gun and 2-D operations, but the 3-D operations would benefit by additional testing.

Alaska Region Research Vessel (ARRV) – Marc Willis reported on the status of the ARRV (his slides are included as *Appendix VII*). UAF has been carrying out a design refresh of the ARRV since August 2007. It is nearing completion. New cost estimates are in progress. An ARRV Oversight Committee (AOC) is in place and active. Margo Edwards is the Chair. A project review is planned at NSF in late February 2008 with AOC and NSF. The next step will be the Final Design Review.

Marc reviewed some the changes in the vessel design as part of the design refresh. There has been weight growth due to changes in the IACS Polar Class Rules. The ship has been lengthened by 6 feet to 242 feet LOA. The length was added aft of the deck house. ADA accessibility features are being incorporated into the ship design. The fisheries assessment capability was removed because there has been no support to acquire the fisheries equipment from NOAA. Additionally, NOAA has a fisheries vessel located in Kodiak.

The ARRV shipyard construction award will be based on total cost including transit from the shipyard to the vessel's homeport in Seward. A 30-month build period is planned. Details of the project can be found at <http://www.sfos.uaf.edu/arrv/>

A question was asked if the radiated noise specification for the ship is to meet ICES. Marc – The goal was for the ARRV to meet ICES; however, The ICES curve is very expensive to meet and as a result the ARRV will not meet the ICES specification.

Interagency Working Group on Facilities (IWG-F) – Bob Winokur reported on the IWG-F’s proposed future efforts. His slides are included as *Appendix VIII*. The IWG-F Fleet Status report is at the printers and will be released soon.

IWG-F has proposed to establish Ocean Facilities Priorities for the Next Decade in support of the Ocean Research and Priorities Plan (ORPP) and Implementation Strategy. The purpose of the effort is to conduct an assessment of the facilities and infrastructure associated with implementation of the ORPP. A three step process is planned:

1. Develop principles for a “Facilities Implementation Strategy”
2. Define current facilities and infrastructure baseline
3. Define facilities gap/deficiencies and constraints to implementing the ORPP

The draft Terms of Reference and implementation strategy for the project are listed in Appendix VIII. IWG-F will interface with UNOLS during the project. IWG-F is waiting for JSOST to approve this proposed process and direct it.

Nancy Rabalais mentioned that there was a detailed infrastructure inventory done as part of the Ocean Commission study. Bob said that he is aware of the inventory and will use it as appropriate.

International Cruise Information Database and Website – Maureen Conte reported on the POGO-CoML initiative to set up an International Cruise Information Database and website. Slides are included as *Appendix IX*.

The Partnership for Observation of the Global Oceans, POGO, is a forum of directors and leaders of major oceanographic institutions around the world and representatives of international and regional programs and organizations to promote global oceanography, particularly the implementation of an international and integrated global ocean observing system. At the 6th meeting of POGO in 2005, members recognized the need to improve information sharing on pre-planned, planned, current and past cruises to enhance awareness of opportunities, and to improve the cost-effectiveness of cruises.

A working group was established to review the need for an International Cruise Information Database and related website. The database would help scientists from different countries coordinate future funded research through information about research vessels of opportunity. It would allow projects to conduct joint work and to fill empty berths. The database would aid in tracking and distributing data. The POGO website <www.pogo-oceancruises.org> includes access to three databases: an R/V directory, cruise programs, and cruise summary reports.

Mike Prince reported that he is working with the POGO people in the UK to handle ship schedule changes in their database. They are working to allow for automatic dumps whenever the ship schedule changes.

2007/2008 UNOLS Goals and Priorities – The Council reviewed the 2007/2008 UNOLS goals and priorities <<http://www.unols.org/info/issues.html>> and discussed strategies for implementing the goals:

Goal: Lowering the barriers to effective use of UNOLS ships:

- **American's with Disabilities Act (ADA) Guidelines for UNOLS Vessels**– The final draft of the ADA Guidelines for UNOLS Vessels was circulated to the Council for review and endorsement prior to the meeting <http://www.unols.org/committees/fic/ADA/ADAGuidelines_for_UNOLS_RVs_Final_Feb08.pdf>. A motion was made and passed to approve the ADA Guidelines for UNOLS Vessels (Rabalais/Morrison). Dolly Dieter thanked the ADA subcommittee for their efforts in drafting the document.
- **Harassment at Sea** – Marcia McNutt and Mike Prince reported on their efforts to explore on-line training programs for sexual harassment. Marcia explained that there are commercial on-line courses available for supervisors and for employees. The typical cost per course is in a range of \$20. In California, supervisors are required to take the course. Mike explained that he found similar training programs that cost about \$18 per course. The company he contacted is willing to adapt their course for ship operations.

Discussion:

- Who should take the course? Marcia indicated that harassment is an issue for crew and science parties.
- How often is an individual required to re-train? Mike – In California, supervisors are required to re-train every two years.
- Peter Ortner – He likes the idea of adapting the training for ship operations scenarios. The situations are unique.
- Marcia McNutt suggested that the training begin with Chief Scientists and PIs.
- Nancy Rabalais feels that the course is needed at all levels.

Action – Marcia and Mike will prepare a proposal regarding on-line harassment training that could be provided through UNOLS. The proposal will be provided to RVOC for consideration.

Lunch Break

2007/2008 UNOLS Goals and Priorities (continued):

Goal: Enlarge the group of supporters for the UNOLS fleet both in terms of capitalization and operations - The 2008 schedules reflect some real progress in this area with new partners.

Discussion:

- Marcia – The support for science has changed over the years. Many institutions are working to make more diversified portfolios. NSF ship support is not as prominent as in the past due.
- Nancy Rabalais made the point that for many of the LUMCON researchers it has been absolutely necessary to find partners/supporters from other agencies and local governments to fund research and cruises.
- Al Suchy – WHOI has received a lot of NSF ship time support over the years, so as NSF budgets tighten, WHOI sees a need for diversification. This year they were able to add ship time to support Saudi Arabia ship time. The new WHOI director is looking at alternatives for support.
- Marcia said that these efforts should not be just about new ship users, but finding partners to support research and education programs that would include ship time.
- Peter Wiebe – WHOI has established the “Access to the Sea” program, which is privately funded. Additionally, the state has provided \$10M for support of OOI activities.

- Marcia – When the Endurance Array and the Cabled Observatory are installed they will require ROV support. ROV days can be expensive, but don't need large science parties. A possible solution would be to use the *Western Flyer* with the MBARI ROV to support observatory operations and maintenance. This could possibly be accomplished by arranging a ship time swap with UNOLS.
- Mike Prince – Replacement of many of the Local Class ships will be needed and will not be funded by federal funds. As a recommendation, UNOLS could encourage collaborations with various state(s) for support of Local ship construction.
- Bob Winokur – Use of federally owned research ships must be in the Nation's interest. If we are selling time to other countries just to fill ships, it won't be to our benefit. The Navy would have a difficult time justifying support for ship construction. However establishing partnerships with other countries would be very useful.
- Marcia – There are a lot of challenges – the root of the problem is really with science support. If we solve this, we solve the fleet problems.
- Al Suchy – The Cooperative Agreements between NSF/Navy and the operating institution are key as we consider diversification. The requirement to obtain hull insurance when chartering to non-traditional users, is non-trivial.
- International collaborations for ship time haven't been terribly successful in the past. Ship time barter with other countries often do not fill our research needs.
- Dolly Dieter – Congress is sensitive to chartering federal ships to other users. The government built the ships to support US science.
- Matt – Institutional and state owned ships can better fulfill the “other” charter work because they don't have to worry about the insurance issues.
- Marcia – We need to change our message. She compared ocean research with NIH. We keep diagnosing the problems with the ocean, but we don't fix them. NIH tells you what is wrong and then fixes it. This is why they get money. The ocean community needs to find solutions.

Goal: Extend planning horizon to meet future infrastructure needs – Marcia tabled this discussion until after Shirley Pomponi's presentation on Day-2.

This concluded the joint meeting of the FIC and Council.

Consortium for Ocean Leadership – Marcia McNutt reported on the first meeting of the Board of Trustees of the Consortium for Ocean Leadership. Her slides are included as *Appendix X*. The meeting included a forum on ocean research infrastructure. Speakers and topics included:

- Historical Perspectives - Marcia McNutt
- Ocean Observatories - John Delaney
- Ocean Drilling - Jamie Austin
- Ships – Bob Detrick
- Space Observations – Mark Abbott
- Innovative Facilities – Tony Michaels

Other topics of interest included:

- Bob Gagosian was announced as the inaugural President for Ocean Leadership.
- There was a discussion of the upcoming NRC study.
- Names were suggested for three outside Trustees. These would be from non-academic institutions and would be high level individuals.

- Several important committees were initiated (e.g., Public Policy), including discussion of how those committees would operate.
- Institutional visits were discussed.

Marcia's term as a Trustee will end after the next Ocean Leadership meeting. Formalizing a UNOLS partnership with Ocean Leadership will be addressed at their next meeting. UNOLS should think about the issues that can be addressed by the Consortium for Ocean Leadership. Moving forward with acquisition of the Ocean Class ships is an example.

Code of Conduct for Marine Scientific Research Vessels – Mike Prince requested a final draft of the ISOM Research Vessel Code of Conduct from ISOM, but one was unavailable prior to the meeting. Mike has reminded ISOM that no one from the US attended the 2007 ISOM meeting and that ISOM should send the Code to the US agency representatives for review and comment. The Code was adopted at their 2007 meeting on a volunteer basis.

Crew and Marine Technician Retention and Hiring Issues – Matt Hawkins reported that a salary survey of UNOLS vessel personnel is underway and the results are being compiled by the UNOLS Office. The survey includes industry data. The future RVOC chair will take on this initiative. Mike Prince showed a sample of the data. Bill Martin added that personnel retention and hiring is a major issue for marine technician groups as well as the crew.

Break

Ad-hoc Committee on Data Management Best Practices – The Ad-hoc Committee on Data Management Best Practices provided a meeting report from their December meeting in San Francisco. The report is included as *Appendix XI*. Mike Prince summarized the report. The meeting included discussions on:

1. Candidates for UNOLS standard cruise-level metadata fields.
2. Identification of a set of UNOLS recommended standard data products for a cruise
3. Opportunities for funding UNOLS metadata and data preparation for archives
4. Methods for maintaining open communication with vessel operators, techs and scientists.

Mike has provided the committee with the data that could easily be used as cruise metadata. The goal is to make the process of collecting metadata as easy as possible. There is a lot of work still to be done. Bob made a report at the RVTEC meeting and got a lot of feedback. RVTEC expressed concern about how the effort could result in more work for the technical support groups. RVTEC said loud and clear “no unfunded mandates.”

The ad-hoc committee has established a project website at data.unols.org.

Dolly asked how often the committee plans to meet. Mike – They plan to meet twice a year; once at AGU and once in the spring/summer.

Request for Proposals to Host the UNOLS Office - Mike Prince reported that letters were sent to each UNOLS member informing them of the Office Competition and inviting Letters of Intent to host the Office. No letters of intent have been received, but at least three institutions are seriously considering their options. The proposals to host the office will be due on 16 May 2008. An

evaluation committee will be formed and provide their recommendations to the UNOLS Chair by 15 September. The concurrence by the membership can be by correspondence.

UNOLS Dues Accounting – UNOLS has not raised membership dues since the start of collecting dues. Last year, expenses exceeded the dues collected. A motion was made and passed to raise the Operator dues level to \$150 and the Non-operator dues level to \$50 (Wiebe/Rabalais). Marcia offered to contact members who are delinquent on the dues payment.

Radio Frequency Spectrum Management – Bill Martin gave a status report of efforts to survey the radio frequency spectrum use by the sea-going oceanographic community. Bill’s slides are included as *Appendix XII*. Richard Perry (LDEO) chairs the RVTEC RF subcommittee. In the fall, the subcommittee revised their survey form and circulated a hardcopy of the form at the RVTEC meeting asked participants to fill it out. Mike Prince also targeted input from key scientists who use the RF spectrum. Richard Perry compiled all of the data into a report and sent it to the UNOLS Office. In turn, the Office sent it to NSF (Andrew Clegg and Dolly) on Nov 19th. Richard plans to continue efforts to distribute the survey to key groups.

[NOTE: Following the Council meeting, the RF report to NSF and the survey forms were posted on the UNOLS website. The report is available at http://www.unols.org/committees/rvtec/reports/RF_Spectrum_Report_to_NSF_111907.pdf. All of the RF survey forms are available on the RVTEC web page at <http://www.unols.org/committees/rvtec/index.html#Activities>.]

Dolly Dieter added that Dan Schwartz is conducting a survey on the Navy P-Code use. The survey is necessary in order to show the Air Force that P-Code is still needed.

Safety Standards for Human Occupied Vehicles –Annette DeSilva reported that the Safety Standards for HOVs are currently in agency review. Once all comments are received, the Committee will work to finalize the document. Marcia asked if the Standards address HOV work around glass spheres. We will review the document to ensure that the chapter on “Operations” addresses this topic.

Keynote Presenters for the Annual Meeting – The new Consortium for Ocean Leadership President, Bob Gagosian, was suggested as a speaker.

Adjourn Day 1

Day 2, Friday, February 8th:

Call the Meeting: Marcia McNutt, UNOLS Chair, called Day 2 of the meeting to order.

Peter Ortnier reported that the Marine Superintendent at University of Miami has resigned. Dave Powell has been rehired to fill in while they look for a replacement.

Committee Activities:

Fleet Improvement Committee (FIC) - Dave Hebert, FIC Chair, reported that the FIC developed preliminary findings and recommendations for the Fleet Improvement Plan. The slides with the findings and recommendations are included in *Appendix XIII*. The findings address the increasing need for access to the sea, fleet size requirements, budget constraints and escalating operating costs, the impact of alternate and emerging technologies on ship use, and fleet capacity with respect to future demand. The trade-off between the cost effectiveness of a fully utilized fleet and the ability to respond to unscheduled events is addressed. The details of the findings are included in the slides.

The FIC identified major issues facing the academic fleet today which include the short-term issue of a mismatch of fleet funding, demand and capacity and the longer-term issue of an aging fleet and the need for renewal.

Dave reviewed the preliminary Fleet Improvement Plan recommendations. They are included in the slides and also below:

- Implement the Fleet renewal activities that are currently underway (ARRV, 3 Regional Class ships) and planned (2 Ocean Class ships).
- To continue to meet current requirements UNOLS should encourage the timely replacement of local vessels and coastal regional vessels by institutions, state governments and regional partnerships.
- If budget projections remain at the current low level, retirement of some of the ships that will soon reach the end of their projected service life should be considered.
- Ship retirement decisions vs. lay-ups should be made based on multi-year projections of ship time demand.
- Strategies for retaining experienced technical support groups and crew should be considered.
- With delayed timelines for delivering the new ARRV and Regional ships into the fleet, some ships nearing retirement should have their service life extended to meet science initiatives. Ships extended beyond retirement dates must be maintained at an adequate level to ensure safe and reliable operations.
- To realize the vision of the Ocean Commission the UNOLS fleet must increase beyond the current projected levels (IWG-F Fleet Status Report). This will not only require increased funding for support of ocean science research and education but also for facility construction, maintenance and operation.
- A minimum of one and preferably two new general-purpose Global class vessel(s) should be planned for, funded, and constructed by 2022. This recommendation is predicated on the planned retirements of all existing general purpose Global class vessels by this time frame and design/ scheduling limitations that could be associated with new Ocean class vessels for performing Global-scale expeditionary science.
- New state-of-the-art ships with technically sophisticated equipment will require additional and advanced technical support groups.
- Planning and acquisition of new ships generally takes about 10 years; therefore it is important to begin the process now for ships that will be needed in 2017 and beyond.

The Council discussed the recommendations:

- Slide 5 – Add the word “enhance” - Alternate and emerging technologies – “will change and enhance”
- Slide 6 – discussed budget shortfalls “there is also the escalating operating costs”

- Slide 12 – It was suggested the Global ship recommendation should be moved up in the list order. The request should be for two ships, and change the date from 2022 to 2018. We want to make sure that the ships will be available when the *Knorr* and *Melville* are retired.

Arctic Icebreaker Coordinating Committee (AICC) - Carin Ashjian reported on AICC activities. Her slides and a detailed written report are included in *Appendix XIV*. The slides and report cover the following topics:

- AICC is soliciting applications for three positions to replace committee members whose terms have expired or are about to expire.
- The USCGC *Healy* 2008 schedule – The ship departs in early March for its first cruise. *Healy*'s schedule is very busy this year, with 7 scheduled cruises. Operations will include the NSF funded Bering Ecosystem Study in the Bering Sea, two National Oceanographic Partnership Program projects on the Beaufort Shelf, and mapping of the seafloor on the Chukchi Cap and the Canada Basin. Captain Fred Sommers is scheduled to relieve Captain Tedric Lindstrom as Captain of *Healy* in June.
- AICC efforts to foster communication between the icebreaker science community and the local Alaskan communities adjacent to the science study areas continue.
- The AICC conducted debriefs of the 2007 *Healy* cruises and is presently compiling the information.
- The AICC provided a recommendation to NSF for more comprehensive medical reviews of science crews on US Arctic icebreakers and for the inclusion of greater medical expertise on board US Arctic icebreakers that are deployed to remote areas.
- The AICC has recommended to the 2008 *Healy* Chief Scientists that they post their cruises on the Arctic Ship Coordination during IPY website.
- The AICC is working with the CG to clarify the berthing policy on the cruise information web site, to increase habitability in science quarters, and to improve communications between science parties and the *Healy* crew.

Deep Submergence Science Committee (DESSC) - Annette DeSilva provided the DESSC report. The Committee held their community meeting in December. A DESSC phone conference was held in January to give the operator input on a variety of issues. DESSC recommended that:

- The science party should provide personnel to operate the *Jason* DVD system.
- If the magnetometer is requested, there should be a calibration turn on each *Jason* dive to calibrate the magnetometer. If it is not requested, no turn is required.
- HD cameras should be installed on *Jason* and *Alvin*
- Vehicle operation and exclusion limits - WHOI provided information on the NDSF rules about ships and ROVs working in the same area at the same time.

A workshop on the Technical Advancement of Remotely Operated Vehicles & Submersibles Workshop took place on January 23-24 and was attended by engineers, operators, and scientists. NSF provided support for the workshop.

Alvin and *Jason* debriefs are going well with a good exchange between the operators and users.

There will be a DESSC nomination coming to the Council very soon.

Research Vessel Operators' Committee (RVOC) - Matt Hawkins provided the RVOC report. His written report is included as *Appendix XV*. Matt briefly discussed the Transportation Workers

Identification Credentials (TWIC) issue and explained that it would be addressed during the RVTEC report. If a facility has a security plan, they would be required to have a TWIC. URI got an exception from the USCG and will share with other operators the steps taken to get the exemption. Marcia commented that MBARI might changing the *Western Flyer's* status and drop their international access. Matt recommended that each chief scientist should look at the ports that they normally sail out of. If these are secure facilities, they should consider getting TWIC cards. The cards are generally good for five years. The attempt to get the general RVOC exemption is basically dead.

The final review of the Research Vessel Safety Standards (RVSS) is moving ahead. Most chapters are in final review at this time. The *UNOLS Wire Safe Working Load Standards, Appendix A* was accepted by RVTEC during their November 2007 meeting, and vessels are now in the process of implementing. The *UNOLS Load Handling System Design Standards, Appendix B* is still under development in consultation with Glosten Associates.

Personnel recruitment and retention is a highly complex issue and a single, simple "fix" is not possible. Creative solutions within current budgetary constraints are now in the process of being developed. A formal list of recommendations will be presented to the UNOLS Council for review and consideration.

With Matt's move to NSF, a new RVOC Chair is needed. The Council appointed Pete Zerr as acting RVOC chair and directs him to select a permanent Chair and if necessary vice chair.

Research Vessel Technical Enhancement Committee (RVTEC) - Bill Martin provided the RVTEC report. His slides are included as *Appendix XVI*. The 2007 RVTEC meeting was held November 6-8 at Moss Landing Marine Laboratories. The meeting was very productive with lively discussions on various topics including safe working load guidelines, determining wire capabilities, and data archival. RVTEC agreed to include information regarding wood packaging in their pre-cruise planning documents. The RF Frequency Spectrum issue was discussed (the report was presented earlier to the Council). Stewart Lamerdin was reelected to serve a second term as the Vice-Chair.

Bill presented information about TWIC (see his slides). TWIC is a security measure that will ensure individuals who pose a threat do not gain unescorted access to secure areas of the nation's maritime transportation system. TWICs are tamper-resistant biometric credentials that will be issued to workers who require unescorted access to secure areas of ports and vessels. RVTEC has been working with RVOC and the two groups have agreed to the following recommendations to present to the Council for consideration:

1. All documented Mariners required to have TWIC by regulations.
2. All Technicians should be required by their operation/institution to get TWIC.
3. **HIGHLY RECOMMENDED** that all Chief Scientists normally sailing out of secure facilities to get TWIC, otherwise science mobilizations/logistics may be jeopardized. PIs should check with their UNOLS operating institution for advice.

To implement the RVTEC/RVOC recommendations, they would have to be broadly distributed to the community:

- Include TWIC article in the UNOLS News

- Send a letter to the UNOLS Membership
- Attach TWIC info to the STR form
- Included information in pre-cruise planning

Letters/articles about TWIC should include details on: what TWIC is, which facilities are secure, how to get a card, and who and why an individual should get a card.

A Council motion was made and passed to accept the RVOC/RVTEC recommendations regarding TWIC cards for mariners, technicians, and scientists as stated above (Bill Martin/Peter Wiebe).

Next Bill reported on the HiSeasNet antenna shadowing issue. This issue was discussed at the RVTEC meeting and in subsequent email transmissions after the RVTEC meeting. RVTEC's response and Dr. Berger's (PI for the HiSeasNet project) email are included in the Appendix. Some of Dr. Berger's recommendations for addressing the shadowing problem include raising the antennae as high as possible and providing system redundancies.

Discussion followed:

- Marcia – What portion of the cruises actually require 24/7 connectivity? UNOLS should figure this out and then determine solutions.
- Mike Prince – To justify a proposal for purchasing a mobile HiSeasNet unit, the demand for the system should be determined.
- Marc Willis – There might be other commercially available options.
- Bill Martin – If the operators were polled, he guesses that users would want higher bandwidth as opposed to 24/7 connectivity.

SCOAR - Mike Prince reported that a Chair is needed. He will contact a potential candidate.

MLSOC - Mike Prince reported that the MLSOC met at AGU to discussed science trials for the R/V *Marcus Langseth*.

Break

NAS Study on Ocean Infrastructure – Marcia McNutt introduced guess speaker Shirley Pomponi (HBOI), Chair of the Ocean Studies Board, who was invited to discuss plans for a National Research Council (NRC) ocean infrastructure study. Shirley is also the Vice Chair of the Consortium for Ocean Leadership.

Shirley Pomponi began by reporting that HBOI, as of December 31st, 2007 is part of Florida Atlantic University. All HBOI employees are now state employees.

On September 28, 2007 a scoping meeting was held to help define the issues and topics that should be addressed by the NRC study on ocean infrastructure. Sponsors of the NRC study would be NOAA, ONR, and NSF. The goal of the study would be to develop an infrastructure plan to meet the nation's future requirements for ocean science. NRC is coordinating with JSOST who is interested in a similar effort (see Bob Winokur's report). The NRC study's statement of task is still under development. A facilities inventory and gap analysis has been recommended as part of the study (the inventory would likely be carried out by JSOST). The NRC plan might include federal as well as non-federal assets. Priorities for future infrastructure investments would be addressed.

Some issues that impact the UNOLS Fleet that might be included in the study include:

- Defining causes of escalating operating costs and developing possible solutions
- Determine the impact of rising operating costs on the level of oceanographic data collected
- Evaluate the value of partnering mechanisms such as UNOLS to support the achievement of oceanographic research objectives
- Determine how technological advancements and ocean observing systems will affect the ability to accomplish data collection objectives and impact the demand and characteristics of the UNOLS fleet of the future.
- Assess strengths and weaknesses of existing mechanisms for planning, funding, and maintaining major community assets
- Evaluate the constraints that may limit the acquisition and operation of new oceanographic platforms.

Marcia McNutt commented that depending on the budget of the committee, it seems that there will have to be subcommittees or tasking out. Shirley replied that they are looking at various options. They want to capture the interests of the committee. A major effort will be devoted to quantifying the level of the escalating costs. Marcia stated that at MBARI they have begun tracking the hours required to support regulatory requirements. Matt Hawkins said that he has a table that could help in defining how to calculate the regulatory costs.

Council Motion – The Council passed a resolution thanking Dolly Dieter for her tireless efforts in support of the Academic Fleet and UNOLS and wishing her well in her retirement.

Other Business:

Annual Meeting – The Annual Meeting format will be the same as last year with a Thursday morning Council meeting followed by the Annual meeting on the Thursday afternoon and Friday. The dates of October 1-3 have been suggested. The Council discussed possible Keynote Speakers. Bob Gagorian, President of Ocean Leadership, was suggested. Marcia will contact him.

Nominating Committee – Marcia McNutt appointed Peter Wiebe (Chair), Mary Jane Perry (non-Operator), and Bob Collier (At large) to the Nominating Committee to review Council membership and positions opening, and to recruit individuals to stand for election. Peter Ortner is completing his second term and Rob Pinkel is completing his first term.

Calendar of UNOLS Meetings for 2008 – The UNOLS Office will poll the Council for their availability for a phone/web meeting in June/July.

Ocean Sciences Meeting - Carin Ashjian raised the issue about UNOLS not having a booth at the Ocean Sciences meeting. The Council agreed that UNOLS should attend the Ocean Sciences meeting in the future and to perhaps alternate between the fall AGU meeting and Ocean Sciences.

1200 Meeting Adjourned