

**UNOLS Council Meeting  
Wednesday & Thursday, March 10 & 11, 2004  
Harbor Branch Oceanographic Institution  
J. Seward Johnson Marine Education and Conference Center  
Fort Pierce, FL**

These minutes are UNOLS Council approved as amended.

A copy of these minutes can be downloaded by clicking [<200403cncmi.pdf>](#)

**Executive summary**

The UNOLS Council met on March 10 and 11, 2004, at the Harbor Branch Oceanographic Institution in Fort Pierce, Florida. Day one of the meeting included a joint session with the Fleet Improvement Committee (FIC). Fleet renewal was a major focus of the meeting.

NSF's renewal plans for facility construction and funding were reported. The Alaska Region Research Vessel (ARRV) is slated for construction funding in FY06 with an estimated cost of \$82M. The EWING replacement is planned over the period FY04 to FY09 at a cost of \$20M. ALVIN Replacement is planned during FY04 to FY07 at an estimated cost of \$20M. Three Regional Class vessels are planned with incremental construction of the first ship beginning in FY06 and the last ship coming on line in FY2012. Total cost for the three ships is estimated at \$75 M.

NSF plans to issue a solicitation for Regional Class ship operators in 2004/2005. NSF needs UNOLS' SMR priorities by summer, 2004. UNOLS will form a Regional Class Advisory Committee to address this effort. The design will need to consider the construction as well as operating cost constraints as factors in the prioritization effort. Based on UNOLS input, Navy and NSF will develop draft "Operational Requirements" in preparation for a RFP.

ONR has funded Phase II of the Ocean Class study, which will attempt to compare three different hull variants at the both the minimum and maximum SMR level. The three hull types being considered are mono-hull, SWATH and X-Craft. Throughout the study, JJMA will interact regularly with UNOLS, NSF, and ONR representatives.

Planning for Global Class mid-life refits will begin with an update of the Science Mission Requirements (SMRs) for general purpose Global Class Vessels. FIC will coordinate this effort. In other SMR and related activities, FIC plans to amend the Regional and Ocean Class SMR to include ADA requirements. They would also like to carefully review the "Lessons Learned" and PCAR comments and incorporate input as appropriate into the SMR documents.

The Federal Oceanographic Facilities Committee (FOFC) will update their Long-Range Fleet plan in an integrated way, so that it is a National Research Fleet Plan. They hope to do address this task over the next 18 months. They may broaden the scope of the plan somewhat beyond ships to include AUVs and ROVs as an example. FIC will provide input to the plan by updating the projected retirement dates for each UNOLS vessel based on operator input. Specifically, they will ask the operators whether the retirement date should be extended, and if so the estimated cost of the extension effort (5 and 10 years).

Other ship design and construction activities that were reviewed during the meeting included the status of the CAPE HENLOPEN replacement effort, EWING mid-life refit/replacement plans, ARRV design and the CAPE HATTERAS mid-life. An interim report was provided on the “Comparison of SWATH and Monohull Vessel Motion for Regional Class Research Vessels.”

In other activities, UNOLS will draft a unified response to the Ocean Commission report.

The University of Hawaii requested UNOLS Vessel designation for R/V KAIMIKAI-O-KANALOA (KOK). The Council decided that the FOFC Fleet Renewal Plan and overall fleet needs should be factored into decisions regarding fleet additions. They voted not to accept the UH application for UNOLS designation of KOK as a UNOLS vessel.

Other issues and reports addressed at the Council meeting included:

- Agency Budget shortfalls and their impact on ship schedules.
- Acoustic Permitting, Marine Mammal Issues and Impact on Ship Operations.
- The Council will send a letter to the UNOLS Working Group on Ocean Observatory Facility Needs thanking them for a job well done and pointing out that it will be a useful first cut at what the impacts of the OOI will be on other facilities.
- Shipboard Over-the-Side Handling Systems (Manufacturer winch inspections and load handling system symposium).
- Icebreaker plans and major issues
- HROV design status.
- Port charges.
- Quality of Service and Post Cruise Assessment – The Council agreed to keep the existing PCA Form in place for a while longer for further evaluation before implementing any changes.
- UNOLS Cables Draft Performance Requirements – The draft cable performance requirements will be sent to NSF and they will be encouraged to support a proposal for an engineering development effort.
- Frequency Spectrum Management Issue – There is a potential that some initiatives to allow use of certain frequency bands by commercial users and to prevent interference by others could result in ocean sciences being denied the ability to use certain frequencies or in having their systems interfered with. A UNOLS liaison will be appointed to keep abreast of these issues.
- Defined Levels of Technician/Instrumentation Support
- New Security Regulations.

Committee Chairs provided written reports and were also offered the opportunity to raise issues that might be of interest to the Council.

Lastly a Nominating Committee (Bob Knox - Chair, Peter Ortner, and Charlie Flagg) was appointed to prepare the 2004 slate of candidates to fill the positions opening on Council.

**Recommendations/Votes**

**Vote:** The UNOLS Council voted in opposition to the motion to accept the University of Hawaii’s application for UNOLS designation of R/V KAIMIKAI-O-KANALOA as a UNOLS vessel. All council members present opposed the motion, with one abstaining. Two were absent from the vote.

**Council Action items**

<b>Action Item</b>	<b>Assigned to</b>	<b>Due Date</b>
<b>UNOLS Regional Class Rep</b> - By summer 2004, UNOLS needs to recommend a community representative to interact in NSF/Navy meetings beginning with the program definition phase. NSF will consider salary compensation. This will be the UNOLS rep to the Integrated Product Team (IPT). The person will also be a member of the Regional Class Advisory Committee (RCAC).	Dave, Wilf, Tim, Office solicit input from Council and FIC, consult with NSF and ONR	Summer 2004
<b>GLOBAL SMR steering committee</b> - Form Steering Committee and draft task statement.	Dave with input from Office, FIC	October 2004
<b>Prioritize Regional Class SMRs</b> – Set up a conference call with NSF, JJMA, Pete and Office to outline the process and timeline. Discuss the level of detail that is required, the format that would be useful for development of operational requirements and performance specs. Any design/cost constraints should be identified (i.e., \$10k day rate).	Dave, Wilf and Office	April 15, 2004 In progress
<b>Form Regional Class Advisory Committee (RCAC)</b> - Solicit volunteers for a range of disciplines. Circulate to Council and FIC for recommendations. Form Group by the end of April.	Dave, Wilf and Office	June 1, 2004 (revised date after meeting) Complete
<b>Ocean Class Planning Phase II</b> -schedule phone/web conference between FIC and JJMA. Annette will contact Dan to make arrangements. Identify any JJMA material that should be available prior to the conference. Determine how FIC can	Annette	April 1, 2004 In progress

provide input on a regular basis.		
<b>Ocean Commission Report</b> - Review report outline and identify sections that require review by UNOLS and Committees. Draft a unified Council response. Input needed by May 20th.	Tim, Dave, Council and Office	April 20 to May 20, 2004 Complete
<b>KOK</b> - Tim and Mike draft a letter to Brian Taylor to explain that the UNOLS Council voted to not accept the KOK application.	Tim and Mike	March 20, 2004 Complete
<b>Guidelines for Becoming a UNOLS Vessel</b> - Add a statement to the guidelines that indicates applications will be reviewed in consideration of section 2 of Charter.	Office	April 30, 2004
<b>UNOLS Charter</b> – Remove inconsistency between authority to approve National Facility and designation of a UNOLS Vessel. Draft and recommend change to the charter before Annual meeting notification.	Office, Council	Early September, 2004
<b>UNOLS Working Group Report on Ocean Observatory Facility Needs</b> -Mike and Tim will send a letter to the Chair and Committee with thanks for a job well done and that it will be a useful first cut at what the impacts of the OOI will be on other facilities.	Mike & Tim	May 15, 2004
<b>Budget Shortfalls and implications on Ship Scheduling</b> - Draft a Dear Colleague article, UNOLS newsletter and potentially an email explaining budget shortfall and measures being taken to avoid future scheduling problems. Tim to discuss with Jim and Mike Reeve.	Mike, Tim and Liz/Rose	April 30, 2004 (Newsletter article complete)
<b>PCA Evaluation</b> - PCAR Charge to Subcommittee: <ul style="list-style-type: none"> <li>• Determine council's role with regard to PCAR, quality and evaluation of the fleet</li> <li>• What is the purpose of the PCAR</li> <li>• Refer to UNOLS Charter sec. 2 &amp; 4e</li> <li>• Review overall process and how well the form supports that process</li> <li>• Evaluate follow-up measures</li> <li>• Replace Steve Rabalais with Tim Askew, new RVOC Chair.</li> </ul>	Curt Collins, Mike	May 15, 2004 Email list created and charge circulated to committee by Chair.
<b>UNOLS Cables Performance Requirements</b> - Mike Prince will send performance requirements to the NSF and encourage them to support a proposal for an engineering development effort. A cover letter from Council will be drafted. Include an article in the next UNOLS Newsletter.	Mike	April 30, 2004 Completed, except newsletter article

<p><b>UNOLS objectives, priorities and goals for 2004-2005</b> - Council to review prior to virtual meeting. Add an item regarding Global SMR development for mid-life refit plans.</p>	Mike, Council	June 30, 2004
<p><b>Spectrum Management Issue</b> - Dale will contact Val Schmidt to determine if he would be interested in serving as a UNOLS liaison on this issue. Mike and Dale organize a meeting for March 23 with:</p> <ul style="list-style-type: none"> <li>• Dale Chayes, Val Schmidt</li> <li>• Steve Piotrowicz/Larry Atkinson</li> <li>• Larry Clark</li> <li>• Mike Prince</li> <li>• Tom Gergely, NSF</li> </ul> <p>Generate Charge and Action plan, and enlist the other participants</p>	Mike and Dale	March 23, 2004 (meeting held)
<p><b>Ship Scheduling Committee Vice-Chair</b> - Tim appoint from SSC nomination.</p>	Liz and Tim	April 1, 2004
<p><b>Prepare Council 2004 Slate</b> - Nominating Committee Bob Knox, Chair, Peter Ortner, and Charlie Flagg. Announce call for nominees.</p>	Bob, Peter and Charlie, Annette	March 30, 2004 announcement, June 30 first draft slate
<p><b>Review UNOLS Charter</b> - UNOLS Office, Tim, Peter and Committee Chairs review and annexes. Address:</p> <ul style="list-style-type: none"> <li>• Ex-officio status on Committees</li> <li>• Eliminate inconsistencies regarding votes on facility applications</li> <li>• Budget approval</li> </ul> <p>Circulate draft revisions to Council for review and comment.</p>	Tim, Office, Peter, Committee chairs	June 30, 2004
<p><b>Annual meeting date</b> - Contact Council and FIC members to determine if the dates of 13-15 October would be good for a meeting.</p>	Office	April 15, 2004 – Done
<p><b>Annual Meeting Keynote Speaker</b> - suggestions for speakers include:</p> <ul style="list-style-type: none"> <li>• Ocean Commission Report (Admiral Watkins)</li> <li>• Observatories - Ken Brink or Bob Detrick</li> <li>• NSF directors</li> <li>• Rick Spinrad</li> </ul>	Tim and Office	June 30, 2004 or earlier
<p><b>Set Fall Ship Scheduling Date</b> - September 14th</p>	Mike and Kate	April 30, 2004,

recommended.		Complete
<b>Summer Council Phone Conference Meeting</b> - contact Council for dates - early July	Mike	April 30, 2004 Complete
<b>RVOC By Laws</b> - Send to Council for approve by e-mail correspondence.	Tim and Mike	April 30, 2004

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- V. [JJMA Regional Class Phase III effort & Ocean Class Phase II study \(PDF 105 KB\)](#)
- VI. [ARRV Update \(PDF 1.5 MB\)](#)
- VII. [POINT SUR and WESTERN FLYER Motion Study \(PDF 264 KB\)](#)
- VIII. [Application for designation as UNOLS Vessel \(UH - KAIMIKAI-O-KANALOA\)](#)
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## **Proceedings of the meeting**

### **March 10th: Joint Session: Council and FIC**

**Welcome and Introductions** - The UNOLS Council meeting was held on Wednesday and Thursday, March 10 and 11, 2004, at the Harbor Branch Oceanographic Institution in Fort Pierce, Florida. Tim Cowles, UNOLS Chair, called the meeting to order at 0830 and provided an opportunity for introductions. Tim Askew welcomed everyone to Harbor Branch. The meeting agenda ([Appendix I](#)) was followed in the order recorded. A list of meeting participants is contained in [Appendix II](#). The first day of the meeting is a joint session of the Council and FIC.

**Accept the minutes of the September 2003 Council Meeting** - A motion was made and approved to accept the minutes of the [September 18, 2003](#) Council meeting.

### **Agency Reports – Agency activities, budget information, and Fleet renewal plans.**

**National Oceanic and Atmospheric Administration (NOAA)** – Beth White (NOAA) introduced John Hotaling (NOAA) who showed a video clip of the launching of the Fisheries Research Vessel (FRV) OSCAR DYSON. The plan is for the DYSON to be in service by October 2004. Hull sections for the second FRV are currently being constructed. They have partial funding (\$17M) for a third FRV.

**Office of Naval Research (ONR)** - John Freitag reviewed this year's budget situation and the impact on ship schedules. They were able to project fairly accurately what could be supported for 2004 at the September scheduling meeting.

ONR has funded Phase II of the Ocean Class study, which will attempt to compare three different hull variants at the both the minimum and maximum SMR level for Ocean Class vessels. This will provide six benchmarks for hull type and size. The three hull types being considered are mono-hull, SWATH and X-Craft. The X-Craft is the designation of an experimental vessel being built by ONR for evaluation by the Navy. It is basically a very fast (~50 kts) catamaran with a very flexible payload space. The Phase II study will consider whether or not this hull form could be adapted to a research vessel. Admiral Cohen has maintained his commitment to fleet renewal and will attempt to include funding for Ocean Class vessel construction in the Navy's future budget requests. In order for this to be successful, construction of the Ocean Class vessels will have to compete favorably with other Navy initiatives and be supported by the chain of command up through the Secretary of the Navy and the Secretary of Defense. At this time, construction money for the Ocean Class vessels is not in any approved budget.

John was pleased to announce that ONR had added a science inspection component to the Navy's INSURV inspections of the AGORS. INSURV is a very thorough inspection, but there was no science component. For the THOMPSON inspection, two marine technicians from other institutions participated to carry out the science portion.

Dale Chayes asked if the non-trivial concerns previously expressed by some at RVTEC regarding this approach to inspections had been addressed to everyone's satisfaction. John indicated that the inspection went very well and that the people who took part were very professional and objective. He did not believe there were any remaining major concerns. The next inspection will be on MELVILLE.

**Oceanographer of the Navy (OON)** – Bob Winokur provided the report and indicated that it is nice to be back with the Navy as Technical Director of the Oceanographer of the Navy. In the past year there has been a major reorganization and the Oceanographer of the Navy now has a double hat, both as the Oceanographer and the Director of Force Net. Force Net is responsible for providing information to the Navy forces. The new title is Force Net/Oceanographer and the Oceanographer will spend most of his time on Force Net business. Bob Winokur will be the primary contact for ocean sciences. Code N61 is the OON's new code; OON's old code was N096. The Oceanographer's office has moved from the Observatory to Crystal City, building NC1. There is concern as to the impact this reorganization will have on the Oceanographer program. Most of the staff has been integrated into Force Net; about four people are dedicated to the Oceanographer duties. The Force Net budget is much greater than the Oceanographer budget.

All of the Navy survey ships are relatively new, so there are no plans currently underway for renewal. NAVO operates seven ships. NAVO reports to CNMOC and CNMOC reports to the Commander, Fleet Forces Command (CFFC) operationally, but resources such as ships, etc., still come through the Oceanographer. Last year, their hydrographic survey vessel, LITTLEHALES, was transferred to NOAA.

The Oceanographer has indicated that they need to expand the reach of their ships for operations in other EEZs. They are looking for new way to do business. They are changing the way they collect data at sea and are moving to increased use of Autonomous Underwater Vehicles (AUVs). They will continue to operate ships, but will augment operations with AUVs.

In other news, Bob reported that he is the new Chair of the Federal Oceanographic Facilities Committee (FOFC). Their next meeting is planned for April 12, 2004 and will be the first that Bob will chair. Bob discussed their responsibility to update the long-range fleet plan, but the action item is to update the plan in an integrated way, so that it is a National Research Fleet Plan. The option of just stapling together various agency plans is not a good option. Various options for approaching this topic are being considered and they would value any suggestions. They hope to address this task over the next 18 months. An action item from the last FOFC meeting was to study lease versus purchase options for new vessels. This topic has been tabled indefinitely. Beth White will continue in the role of FOFC's Working Group chair.

Discussion followed Bob's report. Bob Knox remarked that the previous AGORs were built with OON as the resource sponsor. OON worked closely with ONR, NAVSEA and the operator institutions during the construction efforts. Bob Winokur replied that if Admiral Cohen is successful in getting new money and it is "R&D" money, ONR would



likely be the resource sponsor. If funds were budgeted as “SCN” (ship construction navy) money, then OON would be the resource sponsor. Bob W. added that there is tough competition within the Navy for funds and there is a lot of pressure to build battle ships.

Tim Cowles asked if there is a timeline for a new mission statement for OON. Bob W. replied that there probably wouldn't be a change; the Oceanographer is working hard to retain the mission and function of the office. Over the next 5 years there will be a lot of changes. CNMOC could lose 500 positions.

**National Science Foundation (NSF)** – Jim Yoder provided the report for NSF, his slides are included as [Appendix III](#). His report covered the following areas:

- Budget in relation to 2004/2005 ship schedule and NSF-funded days.
- Overview of NSF funding for academic fleet renewal.
- MREFC account in relation to funding for OCE major equipment, including the ARRV.
- Regional ship update.
- Deep submergence (as presented to DESSC).

Jim presented a chart showing the budget increments in the research and facilities accounts for the past four years. The chart shows incremental funding increases over the years leading up to the zero increase in FY04. Last year (FY03) was probably the strongest year for NSF Ocean Sciences in terms of ship time support. For this year, an increase of about \$12M in ship time had been planned. They had expected a budget increase of \$15 M to support the ship time, but instead Ocean Sciences received level funding. To reduce their budget by \$12M, they ended up having to cut \$6 M from their science budget in FY04 and deferred \$6M in ship days. A budget increase is not anticipated for FY05, so the section is tracking their budget more carefully and will not fund more days than the 2004 level.

Jim showed a timeline with NSF Fleet Renewal plans for project construction and funding. The ARRV is slated to begin construction in FY06 with an estimated cost of \$82M. The EWING replacement is planned over the period FY04 to FY09 at a cost of \$20M. NSF is in discussions with Columbia University regarding the replacement plans. ALVIN replacement is planned during FY04 to FY07 at an estimated cost of \$20M. Three Regional Class vessels are planned with incremental construction of the first ship beginning in FY06 and the last ship coming on line in FY2112. Total cost for the three ships is estimated at \$75 M.

The ARRV funding would come from NSF's Major Research Equipment (MRE) account. Jim showed the run-out of the MREFC account. Ocean Sciences has three of the five MRE projects in the account (Drill Ship, OOI, and the ARRV). Projects slated to begin in FY05 include NEON, the drill ship, and RSVP. The MRE table has been vetted through OMB and the table must proceed in the order presented. Jim indicated that this is very important. If items get delayed, they maintain the order for the next year.

Next Jim discussed the Regional Class effort. NSF is working to complete an MOU with Navy by summer, 2004, to build a lead Regional Class ship, with options for two or three more. NSF management will have to approve the terms of the MOU. Upper management has been briefed and the NSB will be briefed later this month. Assuming the MOU is signed, NSF will independently issue a solicitation for Regional Class operators in 2004/2005.

Jim discussed the role of UNOLS in the Regional Class ships effort. NSF needs UNOLS' SMR priorities by summer, 2004. NSF does not intend to build 175 ft. "regional class" vessels; thus, SMR priorities are needed. Based on UNOLS input, Navy and NSF will develop draft "Operational Requirements" in preparation for a RFP. By summer, 2004, NSF needs UNOLS to recommend a point-person to interact in NSF/Navy meetings beginning with the program definition phase. If this activity requires a major expenditure of time on the part of the UNOLS rep, NSF will consider salary compensation. UNOLS representatives will be involved in the entire process. UNOLS reps will serve on: the program definition phase, the panel to select among competing design proposals, the Government's Integrated Product Team (IPT); the panel to select construction awardees; and the construction oversight.

Jim emphasized that they will need dedicated people to participate in this project. The operator of the lead ship will be a part of the IPT. As the second operator is selected they will join IPT.

Jim reported on personnel changes at NSF. Rita Colwell has left NSF as Director to take on another opportunity. Dr. Arden L. Cement, Jr., Director of NIST is now also the Acting Director of NSF. He has been briefed on Geosciences activities and was willing to give an NSF briefing to CORE. Margaret Leinen has been re-appointed for another three years in her position, Geo-sciences Assistant Director. Jim Yoder will be leaving NSF and his position as Ocean Science Division Director is now being advertised. He doesn't plan to leave before 1 October 2004. The Ocean Observatories Initiative (OOI) is establishing a community planning office. Ken Brink will head the office.

Bob Knox thanked Jim Yoder for his support while serving at NSF.

Peter Wiebe commented that ocean observatories are projected to demand a lot of ship time. We know that the FOFC plan is being updated, but will the update address observatory needs. Jim Yoder replied that this is a big issue that Ken Brink will need to study.

### **Academic Fleet Renewal Activities and Plans:**

**FIC Meeting Report – Recommendations and activities regarding Fleet Renewal** – Dave Hebert, FIC Chair, provided a summary of the FIC meeting from the previous day. His viewgraphs are included as [Appendix IV \(PDF 213 KB\)](#).

The Committee identified projects and priorities for 2004. These include:

- Stay engaged in the Regional Class Phase III and acquisition process, and insure community input
- Evaluate and prepare response to the Ocean Commission report.
- Actively participate in the Ocean Class Phase II study
- Encourage the Agencies to update the FOFC plan, as well as, provide FIC input and recommendations to the plan.
- Continue KILO MOANA Debrief Interviews
- Send the UH a list of KM items/problems that need to be addressed.
- Review post cruise assessment report feedback with regard to facility improvements.
- Stay engaged in ongoing design and construction efforts (ARRV, EWING replacement, CHRV, etc.)

The FIC plans to send a letter to the University of Hawaii regarding findings and recommendations from the KILO MOANA debrief interviews. The areas that require additional attention include:

- CTD ops
- Crane evaluation - visibility problem.
- Establish incubator work site
- Investigate drainage problem – record ship trim and evaluate
- Additional cameras for Bridge
- Low flow for underway system.
- Take noise measurements in cabins. If needed investigate noise insulation
- Request trim measurements for evaluation of drainage and wave slapping.
- Address tank capacity problem and implement fix

FIC will work to update SMRs for general purpose Global Vessels. These vessels are nearing the time traditionally planned for Mid Life Refits. They plan to use the same model that was used in the development of SMRs for the Ocean and Regional Class. As a first step, the FIC recommends that a Global Class Steering Committee be formed. Membership should include representatives from the AGOR operators, ocean observatories, long coring operations, ROV expert, and a FIC rep. FIC will draft a task statement for the Steering Committee to update the Global Class SMR and as a follow-on activity incorporate heavy lift considerations and seismic capabilities.

In other SMR and related activities, FIC plans to amend the Regional and Ocean Class SMR to include Americans with Disabilities Act (ADA) requirements. They would also like to carefully review the “Lessons Learned” and PCAR comments and incorporate input as appropriate into the SMR documents.

Dave discussed FIC’s role in the Fleet long-range plan update. They plan to update the projected retirement dates for each UNOLS vessel based on operator input. Specifically, they will ask the operators whether the retirement date should be extended, and if so the estimated cost of the extension effort (5 and 10 years). FIC will update ship utilization

projections using revised construction dates and incorporate ocean observatory facility needs.

Lastly, Dave reported that two FIC positions will open in 2004, Chris Measures, U. Hawaii (at-large) and Terry Whitlege, U Alaska (Operator). Terry is eligible for another term. The at-large position will be advertised. FIC recommends that Annex IV of the UNOLS Charter be readopted as written. However, they recommend to Council that Annex II be re-examined in how it relates to Ocean Observing Systems.

There was discussion on FIC's plans to respond to the Ocean Commission report. Jim Yoder reported that the report would be released on April 20th to Governors for a one-month response period. One way to respond is through the Governors. The Commission will have 90 days to respond to the Governors' input. It is unclear how groups like UNOLS can most effectively provide input. It was suggested that a UNOLS response through CORE might be effective. It was also suggested that there be one UNOLS response that UNOLS members can use to provide input to the Governors. This will be discussed further later in the meeting.

**Regional Class – Acquisition Process and RFP Status** – NSF has requested that the Regional Class SMRs be prioritized so that the estimated daily operating rate for this class would be constrained to approximately \$10,000. They have requested that NAVSEA/JJMA assist in this process by undertaking a Phase III effort. The Phase III effort will help to identify the SMR items having the largest impact on operating costs. Dan Rolland (JJMA) provided a few charts to help show cost comparisons. His slides are contained in [Appendix V](#).

The first chart provides the day rate for various hulls (CHRV, monohulls, and SWATHs). It also shows the lab area, and deck space, and science area for each hull form. There is only a delta of ~\$3K in day rate between the various designs.

Next a day rate versus displacement chart was presented. Mike Prince indicated that POINT SUR and CAPE HATTERAS fall on this line at about \$8K. At the SMR workshops, there was discussion on this topic and the desire to have the vessels remain at the same day rate as the current Regional vessels was stated. Mike Reeve indicated that \$10K is a good ballpark number to consider for the new ships.

There was a lengthy discussion on the Regional Class process. There is concern about how UNOLS would provide community input to the process. The process outlined by Jim Yoder in September was:

1. Establish MOU between NSF and another federal entity with shipbuilding expertise
2. Prioritize SMRs
3. Form government team (incl. UNOLS rep.)
4. Issue RFP for Phase I design/build
5. Select two competitors

6. Evaluate competing designs and then down-select to one and execute a firm fixed price contract for Phase II
7. Add lead ship operator to IPT
8. Complete detail design and then build.
9. Following lead ship construction, execute option for more ships
10. Add second ship operator to team for second ship build, and so on.

Pete Kilroy expressed the need for confidentiality during the IPT design phase. Once the design phase is down to one IPT, the process can be more open.

The Council re-emphasized their concern regarding the need for community input into the Regional Class design process. The process outlined by NSF appears to lack a clear mechanism for the community to provide input and feedback into the design.

Another issue raised by the Council was the added cost to the project of having another agency (NAVSEA) involved in the acquisition process. Since this cost will be part of the total design and construction cost it is of interest.

It was stated that a clear project timeline is needed. Pete Kilroy indicated that they would like to have the operational requirements complete by the end September. Mike remarked that it would be useful for UNOLS to know what format to use when providing the prioritized SMRs to NSF. What format would be most useful for input to the operational requirements? What level of detail is needed for the requirements?

Following the September FIC meeting, FIC sent a letter to NSF recommending that a UNOLS advisory group be formed to provide input during the selection and IPT process. Jim indicated that there is a major concern involving proprietary information of the IPTs. The confidentiality needs to be maintained. As a result, it is unlikely that such a group could be formed. Bob Knox pointed out that the need to keep information confidential is avoided with the conventional method used for design. This should be reconsidered as it allows open community input. Bruce Corliss suggested that the Regional Steering Committee could be used as a resource. If a design issue needs to be addressed, it can be directed to the RC committee and the answer could be provided to both IPTs.

In regard to the SMR prioritization effort, there may be need for technical information to assist in the effort. JJMA is being contracted to provide that support. The prioritizations may need to be an iterative process.

Wilf commented that this is a vessel that needs to operate 30 years. We need margins for growth.

### **LUNCH Break**

**Regional Class Discussion Wrap-Up** – It was suggested that an advisory group be assembled for SMR prioritization, then retain that committee as a resource to the IPTs. It

was agreed to move forward by forming one committee and tasking them with both functions.

Tim tasked Dave and Wilf to constitute a committee to serve as a Regional Class Advisory Committee. They should broadly solicit volunteers for a range of disciplines. Vessel operators should also be included on the committee with representation also from an intermediate operator. It was recommended that they hold a conference call with Pete and Dan to outline the process and timeline. The process for community input should be clearly defined.

**Ocean Class Planning** – Dan Rolland (JJMA) continued by reporting on the Ocean Class Phase II effort. His viewgraphs are included in [Appendix V](#). He first reviewed the various acquisition approaches that were considered. These included the contract design, circular of requirements, and the Integrated Product Team (IPT) approach with 1 Team and with 2 Team. The Navy favors the IPT 2-Team approach.

Dan reviewed the Phase II task, which is to develop concept designs for three hull variants, a monohull, a SWATH, and an X Craft. They are to investigate new technologies to improve reliability, reduce manning, and reduce life cycle cost. They will develop design criteria and requirements to support future acquisition efforts. Throughout the study they plan to interface regularly with ONR, NSF, and UNOLS representatives and incorporate input and feedback. Periodic status update meetings will be planned and web based conferencing will be utilized. This is approximately a four-month effort with completion planned for May 2004.

Dan reviewed some of the specific tasks that will be addressed during development of the designs. These include:

- Analyze powering, seakeeping, and ability to meet science mission requirements (SMRs)
- Develop construction cost estimates
- Determine crew sizes and operating costs (day rates)
- Provide recommendations on prioritizing SMRs
- Make recommendation on most suitable hull type

Dan provided information about the X Craft vessel. It is a high-speed twin hull technology demonstrator under construction with planned completion in Summer 2004

Hydrodynamic experiments are planned for FY 2005. The vessel specs are:

Length/Beam: 73 m / 20 m (approx)  
Disp: 1000 LT (approx)  
Propulsion: Gas Turbine/Diesel  
Propulsor: Waterjets  
Speed: 50 knots calm seas; 40 knots SS 4  
Range: 4,000 NM @ 20 knots  
Operability: Operational through SS 4; survivable through SS 6  
Mission Bay: Support mission packages in ISO 20'x8'x8' containers  
- Multi-purpose stern ramp

- Side RO/RO ramp

JJMA will evaluate the X Craft's suitability for oceanographic research. The X Craft hull form is designed primarily for high speed (50 knots). They will evaluate suitability for lower speed research missions and investigate costs and benefits of operating at speeds higher than the SMRs. They will evaluate the durability of aluminum structure in higher sea states. The ship will be designed for mission bay modularity.

**FOFC Implementation Plan – Status report** - Beth White reported individual Agencies will be encouraged to actively provide information about their respective fleet plans. The integrated plan will not reduced the value or start from scratch with regard to the Academic Fleet renewal plan. Beth indicated that the information that FIC plans to collect regarding retirement dates and estimated costs for SLEPs would be useful to the FOFC working group. They may broaden the scope of the plan somewhat beyond ships to perhaps include AUVs and ROVs. Tim Cowles and Bob Knox stressed that observatory requirements for ships and ROVs should be addressed in the plan update.

**Ocean Commission Recommendations** - There was a lengthy discussion on how UNOLS should provide a response to the Ocean Commission report. As an action item, Tim will contact CORE to find out how they propose to respond to the recommendations. The outline for the report is available on-line and Tim, the UNOLS Office and others will review the outline to identify sections of importance to UNOLS. These will include sections on facilities, deep submergence, and ocean observatories. As soon as the report is available, the Council and FIC should review it. A UNOLS, unified response will be drafted. Based on Tim's correspondence with CORE, the UNOLS response will be sent to CORE or directly to the Commission. UNOLS members will be encouraged to share the UNOLS response with their respective state Governors.

**Ship Design and Construction Activities**

**Status of CAPE HENLOPEN Replacement effort** - Annette summarized a report by Matt Hawkins on the CAPE HENLOPEN Replacement Vessel (CHRV) plans. On August 29<sup>th</sup> four shipyard proposals were received for the construction of the CHRV. The total cost was slightly higher than expected, but the proposals were competitive and pricing was relatively tight. After a 90-day shipyard evaluation period, the University of Delaware signed a contract with Dakota Creek Industries, Inc in Anacortes, WA. Delivery is scheduled for October 15, 2005 and the ship is expected to be ready for operation in mid 2006. It was suggested that Matt be contacted to find out the actual cost for the design and construction project.

**EWING Mid-Life Refit/Replacement Plans** – A report was provided by Paul Ljunggren in advance of the meeting: “A panel has met and reviewed the LDEO proposal for replacement of the R/V Maurice Ewing with an industry seismic vessel. The proposal received a very favorable review, although 31 issues were identified by the panel for further clarification. These 31 issues have all been responded to and in most instances the response to these issues were considered comprehensive and addressing the

panel's concern. For a couple of issues further discussions to refine the points will be required. The panel has agreed that the community would benefit from the increased seismic and general oceanographic use capability that this ship would provide over the R/V EWING.”

LDEO only received one comment regarding their draft seismic vessel SMRs.

**Status on ARRV Design and funding** – Terry Whitledge from the University of Alaska provided a status report on the Alaska Region Research Vessel (ARRV) design effort. His slides are included in [Appendix VI](#) and additional information about the design can be found at <[www.sfos.uaf.edu/arrv](http://www.sfos.uaf.edu/arrv)>. Terry reviewed changes to the general arrangement, which included the changes to the winch room arrangement, shifting the science hold bulkhead to maintain SMR volume, and moving the sliding watertight doors. The ship’s preliminary drawings are 60% complete. Within a month, they hope to have a decision regarding the ship’s ice classification. Preliminary system drawings for the design are available on the ftp site.

The deck heating system for the ship has been reviewed and they have discussed ways in which the waste heat from the ship could be utilized for this purpose. The zones that should be heated have been determined.

Over-the-side handling gear is one area of major concern. Terry indicated that they are anxious to see the findings of the symposium being carried out on this topic being coordinated by University of Delaware. Some of the items still under consideration include:

- U-frame design and location
- Large crane location
- Side A-frame versus articulating crane
- Electric winches vs. hydraulic
- Baltic room access and configuration – There are clearance issues that need to be resolved. The door limits equipment size

Terry provided a list of science outfit / instrumentation work groups. These included:

- Underway biowater (also incubator and net/sed washing)
- RO/distilled water
- Benches, shelving, general equipment (refrig, hoods, sinks)
- Electric power/IT system/Video system
- Weather stations, meteorology and air sampling
- Surface underway science instruments and bottom sounder
- Multi-beam (deep and shallow systems)
- ADCP systems
- CTD/rosette system for hydro and productivity
- Plankton sampling/MOCNESS/acoustics/optical plankton counter
- Fisheries Oceanography/acoustic assessment
- Bird and Mammal Observer Station



- Climate-controlled chambers, Deck Incubators
- Geological Sampling (grabs, cores, dredges)
- Egress to ice/small boats
- Lab vans (isotope, fish, general lab)
- ROV/AUV capable facilities (power, handling, hanger)
- Workboats, inflatables and personal watercraft
- Mooring or array deployments gear
- Haz Mat, gas storage and safety systems
- ADA design needs for all science spaces (using CHRV, LDEO and cruise ship guidelines)
- Microscope lab

The list is not all-inclusive. The working group members will be looking for input. They would like the chair of these work groups to each provide a report.

Next Terry discussed the ship's uncontaminated seawater system. The current design consists of three, 200-gpm pumps. There are three separate sea chest locations (bow thruster room, centerboard well and MMR). Demands for system (incubator size, number of connections in labs, etc.) are being defined.

Cindy Van Dover asked what would be the policy for ROV operations. Terry indicated that the ship's props could be directed out to move the ice to the side, leaving the aft ice-free. ROVs will be towed aft.

**CAPE HATTERAS Mid-life** – Bruce Corliss provided a brief report on the CAPE HATTERAS mid life effort. The cost of the refit was approximately \$1.9 M. Major changes included moving the crane to the 01 deck. The staterooms and labs were refurbished and two science berths added. A new HVOC system was installed. The ship is scheduled to have an inclining experiment to wrap up the refit.

**SWATH/Monohull Motion Analysis Study** – In advance of the meeting, Curt Collins provided an interim report to the Office of Naval Research: "Comparison of SWATH and Monohull Vessel Motion for Regional Class Research Vessels." The report is included as [Appendix VII](#). Curt explained that the study was funded by ONR and compares the motion of the SWATH, WESTERN FLYER, with the monohull, POINT SUR. Both vessels are based in Moss Landing, CA and often have similar operating areas. Curt reported that preliminary findings generally indicate that the pitch and roll is 2-times greater on the monohull. The only thing that has been surprising on the SWATH is the un-anticipated motions.

Curt explained that there is still work in progress. Additional measurements will be collected from both vessels. They will investigate the vertical gyro output to see if they can measure other components of ship motion, e.g. yaw, heave, surge. A few samples appear anomalous and they intend to see if we can determine why. Feedback from Naval architects, ship operators, UNOLS, FIC, etc. regarding ways to make this study more useful for their work is encouraged and can be sent to <collins@nps.navy.mil>.

**Global Class Mid-Life Refit Planning** - The AGOR-23 and 24 classes will reach the traditional time of their mid-life refits (15 years) starting with THOMPSON in 2006. As reported earlier, FIC will work to update SMRs for general purpose Global Vessels. They plan to use the same model that was used in the development of SMRs for the Ocean and Regional Class. As a first step, the FIC recommends that a Global Class Steering Committee be formed. Membership should include representatives from the AGOR users and operators, ocean observatories, long coring operations, ROV expert, and a FIC rep. FIC will draft a task statement for the Steering Committee to update the Global Class SMR and as a follow-on activity incorporate heavy lift considerations and seismic capabilities. The SMRs will consider ADA requirements, "Lessons Learned," PCAR comments, and other regulatory issues.

**Acoustic Permitting, Marine Mammal Issues and Impact on Ship Operations** - Tim Cowles introduced the topic and stated that in the recent year acoustic permitting and marine mammal issues have impacted ship operations. Some problems have resulted in cruises being cancelled or deferred. UNOLS has sought guidance from the agencies regarding permitting procedures, but things are in a bit of holding pattern while NOAA/NMFS compiles a matrix on noise sources and permitting requirements. Beth White indicated that the matrix is going through NEPA review. A larger issue for UNOLS is the concern that various types of sound sources used in research by our community aren't unduly targeted for permitting requirements or bans.

Tim introduced Dr. Wartzok. Douglas Wartzok is Chair of the NRC project, *Describing Biologically Significant Marine Mammal Behavior*. He is the vice-provost for academic affairs, dean of the University Graduate School and Professor of Biology of Florida International University. For the past 30 years, his research has focused on sensory systems of marine mammals and the development of new techniques to study these animals and their use of sensory systems in their natural environment. He and his colleagues have developed acoustic tracking systems for studying seals and radio and satellite tracking systems for studying whales. For eight years, he edited *Marine Mammal Science* and is now editor emeritus. Dr. Wartzok served on the NRC panel that produced the report *Ocean Noise and Marine Mammals* (2003).

Dr. Douglas Wartzok joined the UNOLS Council via phone conference link. The NRC study currently underway, will provide a summary of the scientific interpretation of the term "biologically significant" as it pertains to marine mammal behavior and acoustic disturbance. The project started in June 2003 and is expected to have a 16-month duration. The National Oceanographic Partnership Program is sponsoring this study, with support from the National Oceanic and Atmospheric Administration, Office of Naval Research, National Science Foundation, and Minerals Management Service. A summary of the project can be found at:

<http://www4.nas.edu/webcr.nsf/5c50571a75df494485256a95007a091e/f7524326d53e614985256d9600528390?OpenDocument>.

Dr. Wartzok began by reporting that he has just returned from a workshop on this topic, the fourth of its kind. The committee's focus is to determine what noise sources are

acoustically significant. They will try to redefine the definition of harassment based on meaningful disruption of the animal's significant biological activities. The committee has put together a conceptual model and has asked several experts to address the various aspects of the conceptual model and on biological impacts. The impression was that it would take a decade to fill in all the details. In closed session they decided to agree on definite statements that could be made from the information provided in the open sessions. This is a challenging process. The recommendations will be available when finalized and approved.

Dr. Wartzok indicated that he would not be able to discuss the closed session; however, he can talk about the things that were presented in the open session.

Question) To what degree will the regulatory process move beyond active sound sources (Seismics) to a broader frequency range?

Answer) A conservative estimate is that frequencies over 200khz do not affect marine mammals. NMFS is generating a "lookup table" that will summarize by species, what the maximum amplitude and frequency, power density and peak amplitude in four categories of sounds, species divided into four categories. They will address energy flux value, peak energy values, pulse and non-pulse sources, injury level and behavioral modification values. Values that fell below the significant threshold would not need to be regulated. There will be a full day of discussion regarding this matrix at the Marine Mammal Commission (MMC)/FACA committee meeting in April.

Question) How would new rules get back to IMO and influence rules on shipping noise.

Answer) There will be a meeting (May 18-19) on Shipping Noise affects on Marine Mammals. They thought that the use of the NMFS Potential Biological Removal (PBR) concept could be used to evaluate the impact of activities.

Comment) Presumably the sound that matters is the sound received at the animal, yet the source measurements are often taken one meter from the source.

Reply) The NMFS matrix is based on received levels, not on the source levels. They are only concerned with source levels. Looking at the Bahamas data, the receive levels were very low, so the affect must have been modulated by their behavioral or physiological responses.

Doug reported that he expects their NRC committee report to be released at the end of August 2004.

Comment) There is still an issue of determining the source level from a particular ship at a particular time. The equipment manufacturer's noise specifications don't always agree. What are ship operators expected to do to show source levels and beam levels? To do this, input would be needed on source levels, beam patterns, and operation mode as well

as receive levels and thresholds. Showing this for multibeam systems and ADCPs, etc is non trivial.

This is an important issue. There is opportunity for public comment. UNOLS can also provide input through the committee members.

### **Application for UNOLS Vessel Designation**

The University of Hawaii has requested UNOLS Vessel designation for R/V KAIMIKAI-O-KANALOA (KOK). Material regarding this request was distributed prior to the meeting and is contained in [Appendix VIII](#).

Tim Cowles provided an introduction and reviewed the application by the University of Hawaii along with the development of issues surrounding the application. There is a process outlined in the UNOLS document “Guidelines for Becoming a UNOLS Vessel” ([Appendix IX](#)) for providing information. The University of Hawaii has provided all information that was required.

When the application was received by UNOLS, there was some question as to how it should be reviewed in regard to the Fleet Renewal Plan. The role of UNOLS in the process of reviewing the ship application was unclear. It was decided to seek the advice of the agencies. The agencies responded in concise terms that they were not in favor of accepting the University of Hawaii application because it does not fit into the fleet renewal plan. Additionally, the budget for ship upgrades is already overburdened. This formed the basis of their negative response. The University of Hawaii responded to the agency letter with further justification of adding the KOK to the fleet.

The Council considered the material that had been presented and generally agreed that the Fleet Renewal Plan needs to be factored into decisions regarding fleet additions. Fleet additions should be consistent with the plan.

Considerable discussion followed:

Comment - The KOK has been used to support research cruises (such as HOTS, MOBY, and HURL programs) in the recent years when KILO MOANA or other vessels were not available. In some respect Hawaii has a point, that although they support research, they do not receive agency support for instrumentation or upgrades.

Comment - Normally NSF funds instrumentation improvements proportional to ship use. NSF's use of KOK hasn't been high, so maybe this isn't an issue. HOTS probably uses their own equipment for cruises.

Tim Askew commented that when HBOI first applied for UNOLS designation for R/V SEA DIVER they were denied because of lack of capability and no record of operations. They reapplied and were accepted the second time after the ship was modified.

In 1993, the UNOLS Chair, Garry Brass, recommended that in lean budget times, ships should only be considered if they have a lot of operating support or if they are giving up a ship.

In February, some FIC members had an opportunity to tour the ship while in Hawaii for the ASLO Ocean Sciences Meeting. They found that the ship had minimal lab space and minimal deck space. In their view it would not serve as a good general-purpose oceanographic vessel and probably could not meet the Ocean Class SMRs.

The addition of KOK to the UNOLS Fleet would not be consistent with the Fleet Plan. The agencies have indicated that adding a ship to the fleet would require that an existing ship be retired. The ship is already 25 years old. The Council agreed that KOK should not be considered as an Ocean Class vessel; however, some may view it as such.

The role of UNOLS in these ship decisions was further discussed. There is a need to clearly define the evaluation criteria. The charter indicates that the Council is responsible for making recommendations of priorities for replacing, modifying or improving the numbers and mix of facilities for the community of users. It was commented that new ships should meet the SMRs in order to be accepted.

A motion was made to accept the UH application for UNOLS designation of KOK as a UNOLS vessel (Knox, Wiebe). A vote of "yes" designates the ship as UNOLS. All Council members present opposed the motion, with one abstaining. Two were absent from the vote.

**Guidelines for Becoming a UNOLS Vessel** - The UNOLS Council reviewed the Guidelines for Becoming a UNOLS Vessel ([Appendix IX](#)) to determine if an update is needed. They also reviewed the sections of the Charter in regard to ship/facility designations. In the Charter, there are inconsistencies between who votes on ships and facilities, Council versus membership. These need to be removed. It was recommended that a statement be added to the guidelines stating that the Council will consider the vessel application in respect to Section 2 of the UNOLS Charter.

**UNOLS Working Group on Ocean Observatory Facility Needs** - Tim Cowles reviewed the Ocean Observatory Working Group report recommendations. The report is posted on the UNOLS website at:

<<http://www.unols.org/committees/fic/observatory/observrpt.pdf>>.

He indicated that it is a very thorough, well prepared report. Tim reviewed the original charge to the Working Group. They did a fine job of addressing the charge.

Next Tim reviewed the report recommendations. Council comments are included below.

Recommendation: The report recommends establishing an observatory standing committee or ensuring that existing committees are adequately represented by observatory experts.

- Comment - Adding a Standing Committee at this time might not be appropriate, but having observatory representatives on the committees is appropriate.
- Comment - It was suggested that an ORION committee member be invited to UNOLS Council meetings and that individuals with OOI expertise, both scientific and technical, be considered for membership on FIC, DESSC and Council.

Recommendation: The working group recommends that ship scheduling flexibility is needed. Observatories will greatly increase demand on ship time. There will be a need for scheduling flexibility for event response. Ships need to be available and located in the right place to respond to events. This is not congruent with the current operating mode for UNOLS.

- Comment - This issue cannot be solved with “smarter” scheduling, but only with increased capacity or significant diminished use for other types of science.
- Comment - It was suggested that we liaison with Ken Brink about further evaluation of observatory needs and for a reality check regarding some of the recommendations in the observatory report. Ken heads the recently established OOI planning office. There are three main issues that must be addressed, scheduling issues, capability issues and ancillary equipment issues. The need to work co-operatively and maintain a strong liaison should be stated.

The working report addressed observatory mapping requirements. The Council commented that more clearly defined requirements are needed before recommendations regarding equipment upgrades can be made. There should be input from the OOI planning office and participating scientists.

Recommendation: Observatory deep-water vessel operations can require installation and servicing of huge spar buoys as well as cable lifting. Ships must be capable of heavy lift operations.

- Comment - The Council suggested that a careful look at the tradeoff between contracting commercial vessels and using UNOLS vessels be conducted. It may make sense for heavy lift operations to be contracted to operators and vessel with experience doing this work. FIC will start working on SMRs for GLOBAL Class vessels and will look at the capabilities needed for heavier lift operations.

Recommendation: Three new ROVs will be needed by 2010. There is also a need to enhance the ships for support of ROV operations.

- Comment - The Council suggested that the observatory installation timeline should be carefully reviewed. The OOI planning office should be consulted. They should explore mechanisms for use of other existing commercial or academic (international) vehicles when needed.

Comment - Some clarification is needed regarding Coastal Observatory facility needs. Will there be a need for ten additional ships geographically distributed. Does this include the vessels that currently located in these areas? Tim will contact Alan for clarification.

Recommendation: In terms of Fleet Planning, the report recommends an SMR for larger, heavier lift Global Class vessels and the inclusion of ROVs as standard shipboard tools.

Tim praised the report. Even if recommendations are unreasonable in today's fiscal environment, they should be read and considered. Bob Knox added that the Working Group did a great job of addressing this important issue. Peter Wiebe stated that although the report's recommendations need to be further explored, the findings are terrific.

Tim, with input from Mike, will draft a response to the Working Group report and send a letter back to the Chair and Committee thanking them for a job well done and that it will be a useful first cut at what the impacts of the OOI will be on other facilities.

### **Shipboard Over-the-Side Handling Systems – Mike Prince**

**Winch Inspections** - Mike gave a brief report about the program being supported by NSF where two winch manufacturers send representatives to ships with their winches installed to review the condition of the winches and to provide training for the crews on maintenance procedures. Several ships have been visited in the first six months of this two-year program and the training has been well received.

**Load Handling System Symposium** - The University of Delaware with Matt Hawkins as the PI has been funded to look at existing over the side handling systems on an international basis. Their focus is to identify the best techniques/systems for handling small to medium size packages such as CTDs, smaller profilers, etc. Some goals would be to identify systems that minimize the number of personnel needed, that control the movement of the package to the water's surface and that minimize ship induced motion. The first step is to identify all potential manufacturers and the location of existing installations. By the summer the group, which consists of several experienced people, expects to develop a set of functional requirements that will be the basis for judging system designs and performance. They hope to have a final report by the end of the year.

*The Joint Session of the FIC and Council adjourned. The meeting continued to address issues of concern to the Council.*

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### **UNOLS Issues**

#### **Other Ocean Facilities - Planning**

**Icebreaker Plans and Major Issues** – Margo Edwards, AICC Chair, provided a report on the Polar Class Icebreakers. In positive news, POLAR SEA and POLAR STAR had a good year of supporting Deep Freeze. They made a good channel to the McMurdo Station. On the other hand, the ships are reaching the end of their useful life based on the remaining service life for their machinery. The hulls have been determined to be useful for another 30 years. The USCG is beginning the process of seeking funds for Service Life Extensions Programs (SLEPs) of the two Polar Class icebreakers by conducting a

Mission Needs Analysis. This is the first step in any major Federal acquisition program. The AICC will be contributing to this study.

**HROV Design Status** – Annette summarized slides provided by Andy Bowen (WHOI) about the status of their Hybrid ROV (HROV) program. The slides are included in [Appendix X](#). In 2003, WHOI submitted a proposal to the agencies to develop a hybrid ROV that would have a depth capability of 11,000 m. Principle Investigators on the program are Andy Bowen, Louis Whitcomb, and Dana Yoerger. The proposal received funding from NSF and NOAA. ONR is contributing to the project by supporting the SPAWARS component that involves development of the micro cable.

Possible uses of the HROV might include:

- Event Response
- Under Ice Operations
- Margins
- Marginal Environments
- Public Outreach

The slides include the vehicle specifications. The system would be approximately 3m x 2m x 2m. It would use rechargeable lithium ion batteries; have a manipulator arm, five thrusters, and lighting. The sampling capabilities would include:

- Push coring
- Heat-flow probe – e.g. the Alvin probe.
- Geotechnical/Geochemical sensors
- Rock sampling/drilling
- Biological sampling – small suction samplers, nets and “bio boxes”
- Water sampling.

The HROV project status and plans for 2004 include:

- Development of syntactic floatation material.
- Initial design of housings is underway.
- Developed a plan for the analysis, design and testing of the micro fiber payout system with SPAWAR. Examining potential candidate micro fibers in detail.
- Developing conceptual plan for power storage batteries
- Developing specifications for sensors (e.g. sonar) and identifying potential vendors
- Form oversight committee to meet in May during DESSC meeting
- Optical analysis and initial design specification of LED based lighting.
- Generating detailed project plan with milestones.
- Conceptual outline of the vehicle control software underway
- Developing initial specifications for electric manipulator

In 2005 they plan to complete final testing on the syntactic floatation material and complete proof pressure testing and cyclic testing of 10-inch ceramic floatation spheres and main electronics housings. Initial testing of the micro fiber payout canisters will be



conducted. They will prototype the battery assemblies. Fabrication and operational testing of LED lighting assemblies will be carried out. Development and testing of the control system will be done using the Johns Hopkins Institute test bed.

System testing would be carried out in 2006 and the HROV will be ready for service in 2007.

**National Research Council (NRC) Committee on Future Needs in Deep Submergence Science** - Jim Yoder mentioned this item in his morning report (see [Appendix III](#)). He also addressed it in depth at the January DESSC meeting. A summary of the NRC recommendations and NSF's response is included below:

***NRC Deep Submergence Report Recommendations:***

***1. NSF should establish a small pool of funds on the order of 10% of the annual NDSF budget that could be specifically used to support the use of non-NDSF vehicles for funded research when legitimate barriers to the use of NDSF assets can be demonstrated.***

*NSF accepts this recommendation and with the following caveats:*

- Emphasis on the phrase “on the order of 10% of annual NDSF budget”*
- Emphasis on the phrase “when legitimate barriers can be demonstrated”*
- When operated on a UNOLS vessel.*
- When OCE and other agency budgets are back in a growth mode, i.e. not this year and possibly not next year.*
- For human-occupied vehicles, when inspection/safety requirements are developed.*

***2. NSF/OCE should construct an additional scientific ROV system dedicated to expeditionary research.***

*Not in the near future (next couple of years), because*

- NSF cannot yet afford to operate a second vehicle.*
- Surge capability (up to 60 days per year) is available through ISIS barter, and this should handle short-term needs*
- NSF want to determine what type of ROVs will be required for ORION, as there may be cost savings if NSF purchased and then operated more than 1 new vehicle.*
- They are also evaluating options to enhance Jason II, along the lines recommended by the report.*

***3. NSF/OCE should consider basing a second ROV system at a second location [probably on the West Coast].***

*Reasonable recommendation and we will consider this at the appropriate time.*

**4. NSF/OCE should construct a new, more capable HOV (with improved visibility, neutral buoyancy capability, increased payload, extended time at working depth, and other design features).**

**5. Thus, constructing an HOV capable of operating at significantly greater depths (6000+ meters) should only be undertaken if additional design studies demonstrate that this capability can be delivered for a relatively small increase in cost and risk.**

*Accept these recommendations with the following caveats*

- New HOV is a **replacement** for ALVIN, not an **addition** to the fleet.
- Owing to the risks discussed in the report (and to take advantage of funds OCE sets aside for midsize infrastructure projects) NSF may start sphere development before we make a decision on a new ROV.

**Budget Shortfalls and implications on Ship Scheduling** – The Council agreed that it would be beneficial to inform the community about the nature of the NSF budget problems and their impact on facility operations and science programs. The community should be aware that budget cuts were shared between science and facilities. The message can be sent via the Newsletter and/or the NSF “Dear Colleague” letter. Tim can discuss this further with Jim Yoder and Mike Reeve. NSF plans to evaluate the budget status throughout the scheduling process.

**Port Charges** – Over the years, the allocation of out-port charges between the ship operator and science party has often been a bone of contention. A few years ago, Dick Pittenger started to work on a matrix of what WHOI, SIO, LDEO, HBOI and UW charge to science vs. ship operations, and the results were all over the map. PIs often cannot know what to include in their proposal budgets since they don’t know which ship he/she will be assigned.

Some examples of the port charges include:

- Picking up scientists at the airport the day before the ship arrives, clearing them through Customs and then taking them to a hotel.
- A scientist wants his or her container removed and then shipped back to the U.S. Crane costs? The longshoremen? Customs clearance on the contents? Warehousing the science equipment until the outbound cargo can be loaded on a commercial carrier?
- Mid-leg touch-and-go port calls to change out 5 or 6 scientists (not specified in the STR)

Non-uniform policies regarding port charges across all the operating institutions invite further controversy.

This is an area where input from RVTEC and RVOC is needed. Port charges will be addressed as part of the UNOLS Technical Services information website. By posting each institution’s port charges on the web, there might be more of a move to standardize. There will need to be an education process.

**Quality of Service, Post Cruise Assessment** - Initial discussion on this topic took place at the close of the day. The topic was continued with a report from Mike Prince on Thursday morning. His viewgraphs are included in [Appendix XI](#).

*1800 Adjourned for the day*

**DAY 2: March 11, 2004**

**UNOLS Issues – Continued**

**Quality of Service, Post Cruise Assessment** – Mike Prince introduced the Quality of Service/ PCA topic and summarized the status to date. A year ago there was a discussion on PCA reports and how they would fit into the big picture of quality of service. Some problems with the new form were identified and it was recognized that there could be improvements. A committee was formed to look at the new form and find areas where there can be improvements. The committee included Curt Collins, Wilf Gardner, Steve Rabalais, Dale Chayes, John Freitag, Linda Goad, and Mike Prince. Their tasking was loosely defined and there was no Chair. They decided to keep the present form in place a while longer while the assessment process was evaluated. They would conduct a spot review of submitted forms. They could then inform the Council if the assessment process is adequate or needs improvement.

The committee did not meet in the last year, but email discussions were conducted in June/July and in December. The four non-agency members each reviewed one year's reports for one ship. They shared their impressions of what the reports told them and how well the questions worked. They discussed proposed changes to the form with input from Agency Representatives.

A variety of changes were suggested (some conflicting) and ten are listed in [Appendix XI](#). The rating scale used on the form came under criticism. It was recommended that a brief explanation at the beginning of the form for the rating scale be added. Also, it would be useful if the reason for not meeting cruise objectives was indicated.

UNOLS Office has provided summaries from the PCAR comments on specific issues. Comments regarding winches, wire and cranes were compiled and forwarded to NSF. Comments regarding Fleet renewal and Fleet improvement were sent to FIC and pre-cruise planning issues were identified for the Council.

Mike summarized the comments that had been received regarding pre-cruise planning issues. There were 44 different post cruise assessments from chief scientists, captains, and marine technicians that identified pre-cruise planning issues. These are listed in Appendix XI.

Mike presented the PCA return rate from Captains and Chief Scientists.

Considerable Council discussion followed in regard to the form and response rates. The comments and questions that were raised are listed below:

- Tim Askew commented that the same form is used for Captain, Technicians and the Chief Scientist. One form doesn't seem appropriate. He also commented that the PCAs for the same cruise are submitted at different times, and as a result there is no continuity. Is there was a formal way to merge the forms?
- Should there be a fourth form for Marine Superintendents?
- These forms are for improving quality and it seems that they have allowed us to identify the areas that need attention.
- What is the appropriate time to allow assessment of the new PCAR form? Is it time to evaluate it? What is the timeframe for doing the evaluation? Should a revision be considered?
- There is a recurring need to educate Chief Scientists, particularly new chief scientists. Perhaps UNOLS should draft an instructional document for new Chief Scientists.

Mike indicated that there are a number of questions that the Council needs to address:

- 1) Do we keep the committee? Council – “yes”
- 2) Are new members needed?
- 3) Should a Chair be appointed?
- 4) What is the charge to the committee?
- 5) What is the role of the Council? And FIC?

The earlier charge to the committee was reviewed:

- Determine Council's role with regard to PCAR, quality and evaluation of the fleet  
What is the purpose of the PCAR?  
Refer to UNOLS Charter sec. 2 & 4e.
- Review overall process and how well the form supports that process
- Evaluate follow up procedures

Annette remarked that the PCAR was discussed at the RVTEC meeting in regard to their low response rate. It was clear that many do not feel that the form is useful and that is targeted against them.

Comment – There are the questions that are appropriate for the RVTEC. The form should be modified so that it asks the right questions to the right groups.

Tim remarked that UNOLS was required by the agencies to make the form available as part of the quality of service effort. It has to be an on-going activity.

Mike Reeve commented that NSF is very happy with the PCARs.

The Council agreed upon the following measures:

- Keep the existing PCA Form in place for a while longer for further evaluation.
- The committee will evaluate the process.
- The committee could continue to spot review submitted forms.

- They will inform the Council if the assessment process is adequate or needs improvements.
- Mike, Peter, Tim, and Annette will finalize the charge.
- Curt Collins volunteered to Chair the committee.
- Membership change – Tim Askew will replace Steve Rabalais.

**UNOLS Cables Draft Performance Requirements** - Mike Prince reviewed the status of the project to draft Cable Performance Requirements. The draft functional requirements are posted at:

<[http://www.unols.org/publications/reports/wire/Cable\\_Functional\\_req.html](http://www.unols.org/publications/reports/wire/Cable_Functional_req.html)>.

Last year, Mike submitted a proposal for engineering and testing for a next generation cable as part of the UNOLS Office proposal, but it was not funded. He then sent messages to the community asking for input on the project, but little response was received. Mike was directed by Captain Houtman and the other agency program managers to draft performance requirements for a new cable. Mike drafted the performance requirements with input from Marc Willis, Dale Chayes, Jon Alberts and Rich Findley and a few other interested and knowledgeable people. Mike commented that trying to get people to review and provided input to these projects on a voluntary basis has not been effective. In his opinion, it should be a funded effort, not unlike the JJMA studies being conducted for the Ocean and Regional Class vessels, the new ALVIN design, and the HROV effort.

The next step in the effort would be to send the draft cable performance requirements to NSF and encourage them to support a proposal for an engineering development effort. A cover letter from the Council would help.

**Review draft UNOLS objectives, priorities and goals for 2003-2004 (Top 10 list)-**

The top ten 2003-2004 issues are listed on the UNOLS website at <<http://www.unols.org/info/issues.html#objectives>>. The issues were divided between three main UNOLS goals:

- Access, Scheduling & Utilization (Ongoing Responsibilities)
- Continuous Quality Improvement (Improvements to Existing Facilities and Systems)
- Plan for Future Facilities (New Opportunities and Facilities)

Tim asked the Council to think about the issues that need to be addressed in 2004 – 2005. This will be on the agenda for the summer Council phone/web conference.

**Frequency Spectrum Management Issue** – Mike Prince prepared a paper with information pertaining to Frequency Spectrum Management and the issues facing the ocean science community. The paper is available as [Appendix XII](#). There is a potential that some initiatives to allow use of certain frequency bands by commercial users and to prevent interference by others could result in ocean sciences being denied the ability to use certain frequencies or in having their systems interfered with.

There is an NSF Program Manager responsible for representing the interests of science, but this position is in astronomical sciences and they would need input from ocean scientists on our requirements to effectively represent us. Some issues of potential concern have been articulated, such as:

- A strong lobby among the "fixed wireless" (microwave industry) that is pushing to shut down such transmissions from vessels (buoys, etc) within 300 km of shore as they perceive (but have not demonstrated) there might be interference with their systems.
- An initiative to allow telecom companies and unlicensed users to broadcast broadband Internet as a modulation of the electric power transmission grid in the HF/VHF bands. This also would severely impact coastal observing systems along with amateur radio users and many others.
- The need and desire of the HF radar community to obtain some dedicated frequency allocations that would allow these instruments to operate as primary users rather than "not-to-interfere" users as is the case now.

There may well be others, but we don't, at the moment, have a unified way of identifying our requirements and where those might conflict with plans being considered by others and the regulating bodies.

The Council needs to be aware of these issues. It seems appropriate to have someone on the Council informed on what is happening to make sure this does not fall through the cracks. We should keep in touch with all contacts, particularly the NSF Program Manager. It would also be good to discuss these issues with CORE, MTS, and Ocean.US.

Tim recommended that a UNOLS liaison be appointed. The Ocean.US office would like to have a meeting to discuss the issues as soon as possible. Dale suggested that Val Schmidt (LDEO) might be a good person to serve as liaison.

Dale and Mike will organize a meeting with the Ocean.US office and the NSF Program Manager.

**Ship Medevac Days** – Annette DeSilva review the statistics on ship days lost due to medical reasons. The statistics are presented in [Appendix XIII](#). Alan Chave sent a message to UNOLS suggesting that it would be appropriate for the UNOLS Council to consider the issues surrounding medical and/or mechanical emergencies on UNOLS vessels that necessitate cruise interruption. He asked that the utilization data be examined to determine the frequency of medical/mechanical emergencies, and how were these cases handled. He asks if UNOLS should have a policy about providing contingency relief to cruises that are seriously impacted.

Lost day statistics are compiled annually by the UNOLS Office for NSF as part of the required Government Performance Reporting Act. The report requires that the lost days for the fiscal year be reported. Only the NSF operating days are considered in the report.

Over the years, the total lost days have been relatively low. As an example, for FY03, total NSF operating days is 2972.5 days while lost days was 139. The lost days include days lost to weather, ship or ship equipment problems, and science or science equipment problems. This represents approximately 4.6% of the NSF operating days. Of these days, only 9.6 days during 6 cruises were lost to medevac reasons.

Since this was a relatively small sample, the search was expanded for all ship time (not just NSF) for calendar year 2003. PCAs for 2003 were examined. In 2003, the PCA response was 69.2 % reporting. Eight cruises reported medevac situations for a total of 13.1 days. Often the individual cruises lost 2 days or less, and the science objectives were still accomplished.

In looking over the lost days statistics, medevac days represent a small portion. Weather days seem to have the biggest impact. It doesn't appear that a general UNOLS policy is needed. However, PIs might have some recourse for individual cases by bringing them to the attention of the agency program managers.

**Defined Levels of Technician/Instrumentation Support** – Annette reviewed the project status and future plans. Her viewgraphs are included as [Appendix XIV](#). The Subcommittee members include Stewart Lamerdin (MLML), Woody Sutherland (SIO), Barrie Walden (WHOI), and Bill Fanning (URI). Their goals in this project are to define the technical services that are provided in support of oceanographic research cruises aboard each UNOLS vessel and to develop a standardized, web-based format for providing this information.

A Technical Service Information Topic Outline has been drafted: [http://www.unols.org/committees/rvtec/services/Tech\\_serv\\_outline.html](http://www.unols.org/committees/rvtec/services/Tech_serv_outline.html). The major items of the Technical Services Information Topics outline include:

- Vessel operator organizational structure & points of contact
- Pre-cruise planning and services
- Cruise planning details
- Cruise loading and setup
- Activities at sea
- Post-cruise activities

The subcommittee asked a select group of marine supervisors and ship users to review the draft outline topics in the fall. Comments were incorporated into the outline and the subcommittee presented the draft outline to the RVTEC for consideration. At the November RVTEC meeting, the committee adopted the outline.

Each Subcommittee member is completing the outline with technical services information for his respective institution. These outlines would eventually serve as a template for all UNOLS operator institutions.

The outline and information will reside on the web. The actual design of the web page has not yet been addressed, and the subcommittee recommends that professional services be contracted to help design the website.

By mid-summer they hope to have the outline ready for input by RVTEC. It is a big effort and the technical support groups will need time to carry out this effort.

Dave Hebert suggested that once the site is up and running it be linked to the STR.

**New Security Regulations** – Dan Schwartz provided a written report on the Security regulations prior to the meeting. The report is included in [Appendix XV](#). The report also includes feedback from Al Suchy (WHOI), Tim Askew (HBOI), Stan Winslow (U.Hawaii), and Tom Althouse (SIO). All of the UNOLS Global ships met the Dec. 31, 2003 deadline for submitting Vessel Security Assessments and Vessel Security Plans to the USCG Headquarters, as required by the Maritime Transportation Security Act of 2002. These ships will be issued Documents of Security (DOS) showing their compliance, once their plans and assessments are reviewed. The Vessel Security Plans must go into effect in July of 2004.

Some of the UNOLS operators have also had to submit Facility Security Assessments and Plans, to cover their bases of operations. The implications of these plans -- including cost of security enhancements, personnel time committed to managing the security plans, implementation of vessel access control systems, securing critical areas of our ships, training for crew and visitors and vendors, positive identification systems (badges, photos, etc.), baggage screening systems, overtime for crew on alongside security watches, hiring of security guard services, etc. -- are yet to be felt by the UNOLS operators, but will likely be significant.

The Global Class ships and a number of the Ocean, Regional and Local Class ships have installed AIS (Automatic Identification System) transponders, in compliance with another section of the International Ship and Port Security Treaty and MTSA '02. These become mandatory for ships over 65 feet in length by July of 2004.

UNOLS ship operators have been sending key shipboard and shore personnel through the "Company and Ship Security Officer" classes provided by MITAGS and the Pacific Maritime Institute. As each ship appoints a "Vessel Security Officer," as required in the Vessel Security Plans, more personnel will have to be sent to this course—and other courses will be provided to all crewmembers and technicians, as required by the 33CFR.

Science parties need to be aware of the new regulations. There are new procedures that must be adhered to for shipping packages to the ships. It was also noted that the issue of multiple entry visas for the science party is becoming increasingly important.

### **Committee Reports**



All written reports submitted by the UNOLS Chairs are included as [Appendix XVI](#). Committee Chairs were also offered the opportunity to raise any committee issues that might be of interest to the Council.

**AICC** – Margo Edwards provided a report for UNOLS Arctic Icebreaker Coordinating Committee. Her slides are included as [Appendix XVII](#).

Having successfully completed three Arctic programs during the 2003 summer field season, the USCGC HEALY, spent most of the fall in drydock. Some of the tasks accomplished during the drydock period include:

- Alignment and offset surveys of most of the ship's systems were completed. All sonar transducers, GPS antennas, overboard sheaves and gyros were surveyed. In addition, local reference marks were installed on HEALY to facilitate future instrument installations.
- The multibeam transducer windows were removed, damaged units were replaced, and new windows were installed.
- A second seawater intake system was installed and the existing internal plumbing was improved, increasing the pipe diameter for flow-through and incubators.
- The ADCP-150 was inspected and a cable was replaced.
- The A-frames were removed and their bearings and pivots were reworked.
- Plumbing for the multibeam header tanks was inspected and their integrity verified.

The science equipment shakedown for the HEALY is scheduled for March 22 - April 3, 2004. USCG personnel have organized assistance from a number of vendors and users to participate in the trials. The first science cruise of the 2004 season departs mid-spring. In 2005, HEALY will participate in joint programs with the Swedish ship, ODEN.

The POLAR class icebreakers had a busy year in supporting Deep Freeze. Both ships completed the southern tours in reasonably good shape. At the present time it appears that only one of the POLAR class vessels will support Deep Freeze in 2005.

The USCG, with assistance from AICC, NSF, the Arctic Research Commission and the National Academy of Science's Polar Research Board, has begun the process of determining whether to replace or refit the POLAR class icebreakers so that USCG ships can continue to support Deep Freeze and arctic science programs. An engineering feasibility study has already been completed, and soon a mission needs analysis report will be undertaken.

There have been some changes in AICC and USCG personnel. AICC charter member Larry Lawver and long-term member Terry Whitledge cycled off the committee in December 2003. Long-term member Lisa Clough is scheduled to cycle off in March 2004. New members are Rebecca Woodgate (University of Washington Applied Physics Laboratory), Carin Ashjian (Woods Hole Oceanographic Institution) and Bernard Coakley (University of Alaska Fairbanks). As of 15 January, Margo Edwards assumed

the chair position with two vice-chairs, Carin Ashjian and Hedy Edmonds (University of Texas Austin). At Coast Guard Headquarters, USCG CDR Joe Bodensted retired in May and was replaced by LCDR Tom Wohjan and Captain Dennis Holland has replaced Captain Chuck Lancaster.

**Deep Submergence Science Committee** –Annette DeSilva presented Patty Fryer’s viewgraphs, which are included in [Appendix XVIII](#).

A summary of DESSC activities, plans, and issues since 09/03 was provided. A decision was made by WHOI to search outside their institution for a new NDSF Chief Scientist to replace Dan Fornari. An ad will be forthcoming. DESSC held a meeting on January 25<sup>th</sup> in Portland, Oregon. The meeting included reports from the science users, the operator and agency representatives.

DESSC is working to create an inventory of deep submergence facilities, HOVs, ROVs, and AUVs. This list will be available on the DESSC web site. An inventory of tools and sensors is also being compiled. The list currently includes the tools available at the NDSF. They would like to expand it to include third party tools.

The January DESSC meeting was unique in that included a NDSF Training Workshop. This was the first of its type. Vehicle systems, operating procedures and cruise planning were presented. A post-workshop survey was conducted to get feedback from participants about the training session. DESSC will consider their input at their spring meeting.

There are four positions openings on DESSC, including the Chair position. These will be advertised. The next DESSC Meeting is scheduled for 17-18 May at WHOI. Plans are underway to have this coincide with Dick Pittenger’s retirement party.

**RVOC Report** - Tim Askew, RVOC Chair, reported that the Committee would hold their 2004 meeting on 19-21 October in Bermuda. Besides addressing security regulations, RVOC is planning on updating their Safety Training manual. The important issue of wet weight of over-the-side gear needs to be addressed. This area needs to be carefully studied in how it relates to cable, wire, hooks, etc.

**RVTEC Report** – Dale Chayes, RVTEC Chair, reported that the 2003 Committee meeting was held at the USCG facility in Seattle, WA. A working group from RVTEC including Toby Martin, Val Schmidt, Geoff Davis and Steve Poulos has developed a protocol for ship-to-ship and ship-to-shore wireless access protocol. The first shore-side installation was made in Hawaii at the UH Marine Facility and KILO MOANA and WECOMA have been equipped. Discussion is already underway with respect to outfitting additional ships and port sites.

A training session on POS MV was carried out at the University of Washington immediately following the RVTEC meeting.

The 2004 RVTEC meeting will be hosted by Florida Institute of Oceanography at the University of South Florida campus on 3-4 November.

INMARTECH 2004 will be held at BAS in Cambridge, England September 20-24, 2004. RVTEC and at least one host institution, most likely WHOI will host the next INMARTECH in the fall of 2006. Plans need to be finalized in time to announce them in Cambridge.

**SCOAR Report** –Due to weather problems, John Bane, SCOAR Chair could not attend the meeting, but sent a slide package. Charlie Flagg, a SCOAR member, summarized the slides, which are included as [Appendix XIX](#).

The committee has held two meetings, one in February 2003 and the second in October 2003. They are working to bring attention to the aircraft facilities. A third meeting is scheduled for March 25<sup>th</sup> at the CIRPAS Facility. The committee includes four members and they are seeking one or two more. FOFC has compiled a listing of all of the federal aircraft facilities available for ocean research.

SCOAR is still in the organizational phase. They are interested in operational considerations, utilization, fleet composition, sensor development, and data services as they apply to aircraft facilities. Looking ahead they will communicate with the science community about SCOAR activities and interests. The Committee will work to determine scheduling and funding practices for National Oceanographic Aircraft Facilities (NOAF) aircraft and define basic instrument suites for ocean science. They are trying to make people aware that CIRPAS exists.

**Ship Scheduling Committee Report** – Elizabeth Brenner, SSC Co-Chair, provided remarks regarding the factors impacting ship schedules. In addition to the budget shortfalls reported by Jim Yoder earlier in the meeting, the IHA permitting process is still posing major problems with EWING’s schedule. The budget and permitting problems have resulted in a lot of shuffling of ship schedules. There were many ships impacted.

The 2005 ship scheduling process began early with initial discussions in January. A web conference or conferences will be held before the summer to eliminate any conflicts and identify critical issues.

Jon Alberts, the newly appointed vice chair of SSC, has resigned from WHOI. Nominees for a new vice chair are being considered from East Coast Institutions. They hope to have a recommendation in place soon.

### **Nominating Committee**

Tim Cowles reviewed the Council terms that are ending this year. Information is contained in [Appendix XX](#). The following terms will expire in 2004:

- Tim Cowles OSU UNOLS Chair 9/02 - 9/04
- Peter Wiebe WHOI UNOLS Vice Ch/Chair Elect 9/02 - 9/04

- Robert Knox      SIO    UNOLS Immediate Past Chair      9/02 - 9/04
- Charles Flagg      BNL    Member - Non - Operator      9/98 - 9/04 (2nd)
- Bruce Corliss      Duke    Member - At Large      11/01- 9/04 (1st)

Tim will move into the Immediate Past Chair position. Peter is eligible for the Chair position. Bruce Corliss can stand for a second term. Bob Knox and Charlie Flagg will rotate off the Council. A Nominating Committee of Bob Knox, Chair, Peter Ortner, and Charlie Flagg were appointed. They will work with the UNOLS Office to advertise the open positions and form a slate of candidates.

**Other Business**

**Review and Re-adopt UNOLS Charter and Annexes** – Tim indicated that the Council would be asked to review the Charter by e-mail before the summer web conference.

**Annual meeting plans** – The Council discussed the timing of the Annual Meeting. There are many schedule conflicts in the second and third weeks of September when the meeting is traditionally held. Mike will send a message to Council to determine if the first or second week of October would be good. The Ship Scheduling meeting will be held on September 14<sup>th</sup>. Annual meeting keynote speakers were discussed and some suggestions included:

- Member of the Ocean Commission (Admiral Watkins)
- Observatory Representative (Ken Brink or Bob Detrick)
- NSF – Director
- Rick Spinrad

**Calendar of UNOLS meetings for 2003/2004** – The calendar was reviewed. A summer Council phone/web conference will be scheduled. The agenda will be developed to fit this format. To be successful, everyone must review the conference material in advance. The Office will send a message to determine the optimal dates. It will likely be in early July.

**RVOC By Laws** – The RVOC By laws will be emailed and considered for approval by correspondence.

**EWING Oversight Committee** – Mike Reeve reported that a major recommendation of the EWING panel and PIs was that an oversight committee should be established for the seismic vessel. It is also envisioned that the seismic vessel should be designated a National Facility. NSF might approach UNOLS to establish a long-term oversight committee that would in turn become a standing committee. The time frame for this effort is probably a year from now.

*The meeting closed with thanks to Tim Askew and the HBOI staff. The meeting adjourned at 1300.*