

## Committee Reports

UNOLS Council Meeting – November 15, 2001

### Arctic Icebreaker Coordinating Committee

The big news for the AICC and arctic oceanography in general is that USCGC HEALY has just completed her first two science cruises, AMORE and ALTEX. We don't want to steal anyone's thunder, but things went really well! Highlights include the discovery of hydrothermal vents along the Gakkel Ridge, and a visit to the North Pole. Fortunately, both cruises included educational components, so you can access journals at the following web sites: AMORE (TEA Michelle Adams) [http://tea.rice.edu/tea\\_adamsfrontpage.html](http://tea.rice.edu/tea_adamsfrontpage.html) and ALTEX (MBARI crew, especially Mike Pinto) <http://www.mbari.org/education/cruises/Altex/>

The POLAR class icebreakers had a busy year in the arctic as well. USCGC POLAR STAR completed an early season cruise to the St. Lawrence Island polynya (TEA Kathie Stevens, [http://tea.rice.edu/tea\\_stevensfrontpage.html](http://tea.rice.edu/tea_stevensfrontpage.html)). USCGC POLAR SEA completed mooring turnarounds in the Bering, and there were plans for opportunistic science in Russian waters, but permission was denied. Schedules are still being finalized for 2002, but it looks like NSF will utilize every science day available on the three USCG icebreakers. One of the major programs in 2002 will be the interdisciplinary Shelf-Basin Interactions (SBI) project. We anticipate things will continue to be this busy in 2003.

Accordingly, the AICC is turning its full attention to science facilitation. We continue to work with the Coast Guard and funding agencies on long-range planning, underway and continuous data collection (What data should be routinely collected? Who's responsible for collection, and more importantly, quality control and data archiving?), science equipment needs for future cruises, and how to best advise the CG on setting expectations and protocols for "Science Of Opportunity" (SOO) cruises, topics that are familiar to several UNOLS committees. Briefly, the AICC is working with UNOLS to maintain a web site containing a rolling five year plan for icebreaker use, beginning with conceptual plans and updated to show proposal submission and status, and, for the lucky few, scheduling. To help facilitate planning, the CG has a planning manual on-line for HEALY (<http://www.uscg.mil/pacarea/iceops/cpmanual/cpmanual.htm>), and similar manuals for the POLAR class vessels are in the works.

We remind the community that requests for cruises on the USCG icebreakers follow the same procedures as those for UNOLS vessels. And to make the ship request procedure even more UNOLS-like, all proposals for arctic cruises are due on Feb 15<sup>th</sup> of the year preceding a cruise (i.e., to use the icebreakers in 2003, you'll need to get your NSF proposals submitted by 15 February, 2002). A scheduling meeting for the icebreakers will be held each summer, and several funding agencies (NSF, NOAA, ONR, USFW) have indicated their intentions to obtain icebreaker time for 2003.

Finally, we need to pass along updates on AICC and key Coast Guard icebreaker personnel. Inaugural AICC members Joe Coburn, Glenn Cota, and Dan Lubin have cycled off the committee. Our new members are Robert Bourke (Naval Postgraduate School), Margo Edwards (University of Hawaii), and Peter Minnett (RSMAS, University of Miami). Jim Swift has completed an outstanding five-year tenure as AICC chair, and as of 1 January, Lisa Clough has assumed the chair position. The AICC has also formalized ad-hoc representation from RVTEC (Dale Chayes) and RVOC (Daniel Schwartz). Of note for the Coast Guard, CAPT Dave Visneski is now the CO on HEALY, CAPT Dave Mackenzie is the CO of the POLAR STAR, and CAPT Keith Johnson continues as CO of the POLAR SEA. CMDR Joe Bodensadt has replaced CMDR George Dupree as the icebreaker contact in Coast Guard headquarters. A key player in the scientific success of USCGC HEALY, CAPT Jeff Garrett (previous CO of HEALY) has been promoted to RADM- Congratulations Jeff!

The AICC can be reached by writing to the Chair (CLOUGHL@MAIL.ECU.EDU) or to the UNOLS Office (office@unols.org).

Report submitted by L. Clough

### **Deep Submergence Science Committee**

The DESCEND brochure came out in December 2000 and was distributed at the San Francisco DESSC meeting. Copies will be provided at the UNOLS Council Meeting. This spring the DESSC pursued efforts to follow-up on the technology recommendations of the DESCEND meeting. An evening meeting held at the Oceanology Conference in mid-April helped define directions for more detailed discussions. The meeting (coordinated by Jim Bellingham, Annette DeSilva, and Dan Schwartz) consisted of an introduction and free flowing exchange on submergence facility needs and issues. Submergence technology needs and problems were identified. These are listed in the meeting report posted on the UNOLS Website at <http://www.unols.org/dessc/descend/followon/april04.htm>. Access and funding of assets were also discussed at the meeting. This continues to be a concern within the community.

Further pursuit of this follow-up activity is continuing. DESSC is currently engaged in synthesizing the efforts of various technology workshops that have been held over the last few months and is pursuing linkages with groups planning technology workshops in the near future. DESSC is interested in providing a means by which the submergence aspects of these meetings may be summarized and explored in greater detail and by which a roadmap for future directions in technology development may be defined.

DESSC held its summer meeting at WHOI at the end of May. At this meeting a summary of operations of other deep submergence activities was presented for MBARI, MPL, NURP, ROPOS and the US Navy. The agencies reported on recent activities and trends including the establishment of the NOAA Ocean Exploration program. The national facility report included an update on the overhaul of the Alvin, which was

completed in early June. The Alvin passed recertification in mid-June and is currently at work in the Atlantic. Upgrades to the NDSF ROVs continue on schedule and are expected to be complete by mid 2002.

DESSC discussed mechanisms by which it could improve its effectiveness in providing the community of marine biologists with a higher level of interaction with the National Deep Submergence Facility. To this end DESSC has applied to hold and been granted a Special Session at the ASLO/AGU meeting in Honolulu in 2001. The Special Session description is as follows (Patricia Fryer, Shirley Pomponi, Anna-Louise Reysenbach co-conveners):

"Recent advances in understanding submarine biosystems: Submergence Research"

Description: The use of submersibles and remotely operated vehicles provides a mechanism by which the marine biologist and geochemist can perform field work in extreme environments, collect samples, run experiments, and establish observatories on the sea floor and in the water column. This session will highlight recent advances in marine biology and geochemistry as pertains to systems investigated with these submergence vehicles including ridge crest studies, convergent and passive margin studies and research in the water column. Presentations on upgrades to existing vehicles and projected uses for the future will provide attendees with up to date information on the state of the art in submergence vehicles and systems. There will also be an opportunity for scientists to exchange feedback with other users of these vehicles and systems and with facility operators.

DESSC also discussed the status of archiving of data at the NDSF and discussed scheduling issues for both 2002 and beyond. DESSC also discussed efforts to broaden the user base of NDSF to include more researchers from the field of Marine Archeology.

Minutes for the DESSC meetings will be available soon at the UNOLS Web site at the following URL: <<http://www.unols.org/dessc/>>

Dr. Patricia Fryer

### **Fleet Improvement Committee**

FIC was scheduled to meet in September just before the Council meeting. Many FIC members were stranded in route or never left their home.

Over the coming years the main activity of FIC will be to assure the development of SMR's in both class and regional sense.

## **SMR Activity:**

With the FOFC plan for slightly different classes of ships, the retirement of ships and emerging regional (Gulf of Mexico for example) needs FIC suggests that many SMR assessments are needed.

It seems clear that new vessels will be built. SMR's are needed.

- Establish guidelines for producing SMRs including time line.
- Identify SMRs for development (based on new vessel classifications)
- Identify geographic regions where efforts should be initiated.

How will FIC work with the institutions? U. Delaware and U. Alaska are examples. The new OSU/URI consortium is another.

Should FIC raise the flag for the Gulf?

## **Fleet Renewal Efforts in Progress**

- KILO MOANA - Status and Operation Plans
  - Status report on Construction
  - Science Shakedown Cruise planning
- Alaska Research Vessel - Status and FIC's Role in design review
- N. Atlantic and NW Pacific Oceans Class Vessels (OSU and URI plans)
- CAPE HENLOPEN Replacement Status
- SAVANNAH - Construction status and Operations Plans

At this point we should all understand the current situation regarding the FOFC process and what plans institutions are making.

## **Fleet Capabilities needed to support Observatory Work**

- Will new ships be needed?
- What are the options?

## **Community Outreach**

What is needed to keep and/or get the community involved? EOS letters? Information on WWW site?

FIC will:

- Continue to push NSF and other agencies to develop capitalization plans.
- Provide suitable material (SMR's, white papers) to NSF, NOPP and other agencies.
- Keep the community involved via letters to EOS etc.
- Review Fleet utilization projections

## **Research Vessel Operators Committee**

The Research Vessels Operators Committee (RVOC) met on 24-26 October at the Oregon State University, Hatfield Marine Science Center. Present were operators, funding agency representatives, and others representing U.S. and foreign organizations involved in the operation of oceanographic research platforms. The latter group included, The Canadian Defence Research Establishment, Southampton Oceanography Centre (UK), Commonwealth Scientific & Industrial Research Organisation (Australia), SACLANT Undersea Research Center (NATO), Glostest Associates, Military Sealift Command, Netherlands Institute for Sea Research, and Sea Education Association. A brief overview of pertinent meeting topics follows:

- The Safety Committee to review the RVOC Training Manual with the intention of evaluating its potential for serving as the required training document for STCW and ISM certification.
- Chris Gobey representing SACLANT gave a brief summary of their effort to interface ISM into the science component on their vessels. Formal procedures are being developed for the operation of every piece of science equipment coming on their ships. The process will take about 6 months and will involve the development of Safe Operating Procedures (SOP) for all installed and transient science equipment on their vessels. In addition to developing SOPs for science equipment, all ship personnel have gone through Risk Assessment Training.
- Dr Andrew Forbes with the Commonwealth Scientific & Industrial Research Organisation in Hobart, Tasmania, and Major Michel Caron with the Canadian Defense Establishment, introduced us to their organizations and give a brief review of the capabilities of their research vessels.
- Hervey Andrew, Vice President of Marsh Marine and Energy spoke on the status of maritime insurance and warned that premiums will be increasing in the near future. Operators were encouraged to work with their brokers so they understand our efforts to reduce the risks of operating the fleet.
- A number of organizations including, University of Alaska, Florida Institute of Oceanography, University of Delaware, WHOI, Skidaway, and Sea Education Association presented plans for building new vessels at their institutions or reviewed progress on vessels already under construction.
- On the second day the meeting broke into 3 working groups, ISM Work Group, Personnel Recruitment and Retention Work Group, and Quality of Service Work Group. They met for about 2 hours after which the Chair of each group summarized their discussions.

The 2001 RVOC annual meeting was held in conjunction with the RVTEC on 23 October 2001, at the University of Rhode Island, in Newport, R.I. on 24 October, and again at URI on 25 October. Day 2 and 3 were convened without RVTEC in attendance.

On the first day of the meeting Federal Agencies provided updates on their activities and the UNOLS Office give a report. The remainder of the day was devoted to discussions on the Quality of Service Initiative, winch and wire issues, and presentations by various groups involved with ISM compliance on research vessels. Mike Prince introduced the Quality of Service Initiative and provided an overview of progress to date in the UNOLS committee assigned to this issue. Topics covered in the winch and wire section included presentations by Jon Alberts, WHOI, and the establishment of SMR's for the next generation of UNOLS wire ropes and cables, Tom Althouse, SIO, and safe working loads of existing UNOLS cables, James Stasny, Dynacon, and new over the side handling equipment, and Peter Wiebe, WHOI, on future science needs for wire ropes and cables. The ISM discussion included presentations by Morgan Terrell, U of W, on compliance efforts by Class I&II operators, Paul Stone, Southampton Oceanography Centre, and ISM issues addressed by foreign operators, and Doug Friskes, NOAA, with an up date on their ISM program. All of the topics discussed on the first day were relevant to both RVOC and RVTEC and, in general, both groups felt it was beneficial to conduct these discussions in joint session. Efforts are underway to formalize procedures for future joint meetings between RVOC and RVTEC.

RVOC reconvened on days 2 and 3 for their routine agenda and business items. Tom Althouse, Safety Committee, and Lee Black, Personnel Committee gave subcommittee updates. Crew recruitment and retention were highlighted as a critical issue facing operators of research vessels in the United States. A diminishing pool of qualified crew has made it increasing difficult for operators of UNOLS vessels to find qualified crew to fill new billets and replace personnel lost to other higher paying segments of the marine industry. Other topics discussed on day 2 included an overview of accident statistics, pay compensation studies on small UNOLS vessels, reports on the buyers and personnel conferences attended by RVOC members, and an introduction to the Ship Operators Cooperative Program (SOCP). After presentations by foreign operators, the meeting continued with research vessels updates, and presentations, on fuel cells and their potential applications on UNOLS vessels, new USCG drug testing policies, the new UNOLS medical services contract, and an insurance and admiralty law review.

The meeting continued on day 3 with a wrap up of new vessel updates and a presentation on security in the UNOLS fleet. A review of security related issues and an update on the incident on the R/V *Ewing* earlier this year in the Gulf of Aden, was followed with discussion by the operators, and general comments about ways to improve security onboard UNOLS vessels. The RVOC Business Meeting followed.

Action items adopted at the Business meeting included a vote to adopt ABS Safenet as the standard CMMS system product on UNOLS vessels. RVOC members also voted to accept the accommodations van panel design pressures described in paragraph (1) of the Coast Guard review letter (Serial H1-0101248, dated May 24, 2001) as the minimum structural standard for all new vans "normally occupied by personnel", including lab vans. A RVOC subcommittee was formed to address other van issues including inventory, science liaisons, and further actions related to new vans constructed for the UNOLS community.

Further action included the assignment of individuals to groups whose task it is to conduct salary surveys on Class I-III UNOLS vessels, an agreement to formulate an NSF Inspection Program evaluation form, a vote of confidence for the continuation of the compilation of accident statistics by the UNOLS office, a recommendation that RVOC become a member of SOCP, and a decision to encourage future joint interactions between RVOC and RVTEC.

The 2002 RVOC meeting will be hosted by MBARI and Moss Landing Marine Lab. E-mail ballots will be used to decide the meeting place for the 2002 annual meeting.

### **Research Vessel Technical Enhancement Committee**

The Lamont-Doherty Earth Observatory of Columbia University in Palisades, New York hosted the 2000 Annual meeting of the Research Vessel Technical Enhancement Committee (RVTEC). The minutes of this meeting were (for the first time) approved by a combination of posting revised drafts to the web, soliciting comments, additions and corrections by email and then accepting the final version by email vote. Historically, the minutes were approved at the following annual meeting. During this meeting we tried a new format with “hands-on” technical sessions on several topics including Salinometer operation, wire termination and had a session on SeaNet training.

During the year, members of the RVTEC participated in the updated Winch and Wire Handbook, email based discussions related to wire safety and development of specifications for new wire and winches. Several members participated in a final shakedown of the science systems on the Healy on a short cruise from Seattle to San Francisco in late April, 2000 just prior to her departure for her first science cruises.

The Graduate School of Oceanography in Narragansett, Rhode Island hosted the 2001 Annual meeting on October 23-25, 2001. The first day of this meeting was joint meeting with the Research Vessel Operators Council (RVOC). There was a brief over-lap during the final day as well. During the joint sessions we received UNOLS and Agency reports, had presentations on winches and wires and then discussed the impact of ISM on our operations. We continued our breakout session format this year with sessions on debbubblers, wireless communications and data acquisition systems. We had two discussions on the issue of level of service and have formed a working committee to continue pursuing this issue.

During our business meeting, Steve Poulos of the University of Hawaii was elected vice chair to replace Tony Amos who has served two terms (four years). After some discussion, it was agreed to evaluate the University of Hawaii as the venue for the 2002 annual meeting. Barrie Walden was nominated to be our interface with the organizing committee for INMARTEC 2002 that is being hosted by JAMSTEC. As currently scheduled, INMARTEC 2004 will be hosted by the British Antarctic Survey (BAS) and the Southampton Oceanography Centre. By rotation, INMARTEC 2006 should be hosted on the US East Coast and we need to identify likely hosts.

## Ship Scheduling Committee Report

For the second year in a row, scheduling problems have persisted late into the year. The problems for both CY 2001 and CY 2002 involve multiple ship cruises, logistics of providing special assets (e.g. JASON, ALVIN, ROPOS, etc.), and timing of cruises to fit weather or seasonal windows. Each attempt to solve one problem sent waves of new problems rippling through other schedules. This has been especially frustrating in trying to schedule the multiple ship cruises for the Navy last year and for the GLOBEC cruises this year. As of early November, the GLOBEC issues have not been completely resolved.

Schedulers are presently facing many of the problems that critics of the first draft of the fleet renewal plan predicted would happen with a reduction in vessels. If there is a reduction, these problems will only get worse. FOFC and funding agencies take note.

With budgets still in the Great Unknown, there are still many days listed as pending on almost all ships' schedules. Be that as it may, the total number of days requested in 2002 is 5479. That is a reduction of 254 days from 2001. Part of that reduction is due to the Coast Guard pulling its schedule for HEALY off line because of the terrorism attacks. The main decrease in days comes in the Class IV vessels, with a decrease of 394 days requested from 2001. The comparison by class follows.

Class	2001 Days (% FOY)	2002 Days (% FOY)
I & II	2356 (87.3%)	2425 (89.8 %)
III	1149 (69.6 %)	1195 (72.4 %)
IV	1567 (96.7 %)	1173 (81.5 %)
Other	661.5 (100.2%)	686 (124.7 %)

Some of the reduction in Class IV comes from CAPE HATTERAS undergoing a half-year lay-up with the goal of completing a mid-life refit during that time. There also was a reduction in the number of vessels included in that class with SEA DIVER retiring from the fleet. LAURENTIAN, among the 'Other' category, also retired from the fleet at the end of 2001.