

## Appendix III

### UNOLS Committee Reports

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#### Committee report from RVTEC

RVTEC activities for the first half of this year have concentrated mainly in two areas. The first is the upcoming RVTEC/INMARTECH 98 meeting scheduled to be held in La Jolla on 19-22 October. To date all of the RVTEC meetings have involved only participants from UNOLS institutions, NSF, ONR, NOAA, NAVO and ASA. Last year we were joined by representatives from the Polar operations group of the Coast Guard. The 1998 meeting in La Jolla will be unique in that we will involve groups from the international community. This effort resulted from a successful INMARTECH 96 in Southampton, England in which technical groups from the international community gathered for a joint meeting. Subsequent to this meeting efforts were made to include US representation and through the efforts of the NSF a tentative decision was made to host an international meeting here in the United States.

The subject was an agenda item at last years meeting in Seattle bringing a consensus to host a combined meeting in 1998 at La Jolla. Through the unflagging efforts of Annette DeSilva of UNOLS and Woody Sutherland, Technician manager at Scripps Institution of Oceanography the program has moved forward and final preparations are presently in progress.

The RVTEC group will meet for a one day session prior to the international meeting which will last for 3 days. Present plans include Workshops on several subject of interest to Marine Technicians, a reception and poster session at the Birch Aquarium facility on the SIO campus, a Bar-B-Que at SIO Marine Facilities and a Mexican dinner.

In other activities, RVTEC has been working closely with the U.S. Coast Guard and the AICC in planning the scientific ice trial of the new Coast Guard icebreaker USCGC HEALY. Because HEALY is the first USCG vessel with science written into her mission statement it is clear that the Coast Guard is serious in making HEALY a first rate scientific platform for Arctic operations. AICC was brought in early on to assist in the selection of the scientific suite and RVTEC has been involved in the planning of the scientific testing regime as well.

The Coast Guard is seriously looking at a variation of the UNOLS model for technical staffing of the vessel. Toward this end they have, at our invitation, sent Coast Guard Marine Science Technicians out on UNOLS vessel in order to become acquainted with the UNOLS way of doing business.

Submitted,  
John S. Freitag  
Chair, RVTEC

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#### Fleet Improvement Committee Status Report

FIC has two SMR activities in progress at this time.

The committee to develop an SMR for a vessel suitable for work in the shallow waters of the east coast continental shelf and bays includes Gus Paffenhofer (SKIO), Charlie Flagg (BNL), Al Hine (SFU), Mary Scranton (SUNY, Stony Brook), Clare Reimers (Rutgers), and Larry Atkinson (ODU and Chair). The committee is working from existing SMR's and at this point each committee member has provided their own assessment of requirements. In the next few months the SMR will be finalized.

The second SMR is to develop a Science Mission Requirement (SMR) document for a vessel suitable for work in the Alaska region. The committee will be led by co-chairs Drs. Tom Weingartner and Vera Alexander, both from the University of Alaska. Other members include George Hunt (UC Irvine), John Christensen (Bigelow Laboratory), Larry Atkinson (ODU), and Jim Meehan (NOAA/NMFS). The Alaska SMR committee has a more difficult task as it must consider not only the needs of general oceanographic research in Alaska waters but also ice strengthening and fisheries research. A draft plan should be ready by December.

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### **DEep Submergence Science Committee Report - June 1998** **Submitted by Mike Perfit, Chair**

Operations on ATLANTIS since the last PSA at the beginning of this year have been going very well. Some of the major problems that were plaguing the new ship were addressed during the PSA....others will continue to be worked on over the next year. DESSC was made aware of the operators plans for upgrading the ATLANTIS in the coming months (e.g. further work on the HVAC, propulsion control systems, consistent lab power supply, crane upgrade, noise abatement). The operators and DESSC will work together to get input from the science community to prioritize these upgrades. The next major shipyard period is in two years.

ALVIN and ROV work has been very successful. Bottom time with ALVIN has increased (avg. 5.2 hrs). A number of advances with imaging, mapping and navigation have been made with Jason. The WHOI operators have continued to work on upgrades to the vehicles that the community requested and were funded through the federal agencies. WHOI is continuing to work on the data logging and navigation systems, video upgrades, scanning sonar, a "virtual ALVIN" computer model and a ring laser gyroscope. WHOI has also funded a steerable elevator for Jason that will be tested later this summer.

At the suggestion of DESSC, the WHOI operators have instituted a new "Science Liaison" position to help facilitate cruise planning and to act as a science coordinator. They are in the process of searching for an assistant coordinator and staff assistant now.

Scheduling for ALVIN and the ROV's for '99 and beyond is beginning. There is again a good deal of proposal pressure for the traditional "yo-yo" regions (JdF-N EPR) but more proposals are coming in for S. EPR, Atlantic and Gulf of Alaska. NOAA/NURP plans to have 21 dives in the N Pacific in 1999. DESSC has had some success in developing global deep submergence initiatives (SW Pacific, Indian Ocean).

WHOI and DESSC are still waiting to learn about the final disposition plans of SEACLIFF. The operators at WHOI submitted a proposal to the fed. agencies to do an engineering study regarding the potential uses of SEACLIFF and costs involved. This proposal is in the process of being revised at present.

DESSC has started to write a "White Paper" that will begin to address the future needs of deep submergence science and deep submergence science initiatives beyond 2000. Of particular interest was the role of ROV's and AUV's and how deep they will need to dive in order to complete the proposed science objectives. This document will be a precursor to wider community involvement and discussions regarding the development of new facilities in the near future. These community meetings may take place starting in the early part of 1999.

M. Perfit has completed his three year term as DESSC chair and Patty Fryer was nominated to replace him by the committee. In addition, three members of the committee (including Patty) are rotating off and

nominations to replace them were given to M. Perfit. He is in the process of contacting them to see if they are interested.

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## **AICC Report to Council**

### **1. Funding for HEALY**

Although the AICC has not yet taken an activist role in working to secure long-term funding for HEALY science logistics, the Chair is aware of some discussions which have taken place by various parties regarding the possibility of using congressional funding through the National Ocean Partnership Program to provide such support to the Department of Transportation. This is a quite different approach than another concept that has been discussed, namely of achieving seagoing science logistics parity between Arctic and Antarctic oceanography programs at NSF/OPP. As noted, the AICC is not involved at this time, and is simply awaiting information or advice on either matter. As far as is known to the AICC, support for even a significant fraction of the 240 days per year that is conceived for HEALY operations is not yet in place.

### **2. 1998 Western Arctic SOO program**

An SOO cruise now underway in the western Arctic was preceded by the planned sequence of announced opportunity, assessment of proposals to participate for logistics suitability and compatibility, notification of PIs (none were turned down outright), selection of a Chief Scientist, and then leaving the program to the Coast Guard and participants. Earlier notice (due out soon) is expected for 1999.

An incident at sea in which radioactive materials may have been transported and brought on board without required notifications and documentation is now being investigated by the Coast Guard. The AICC has recommended that the Coast Guard be guided in handling these matters by existing UNOLS policies and procedures.

### **3. "SHEBA" SOO program**

A late-breaking possibility for a second 1998 Science of Opportunity cruise (during August 1998) surfaced during late January 1998, with the option raised of some association with the SHEBA program. But the SHEBA program office made it clear that they would prefer what amounted to straight logistics support (crew rotation and equipment transfers) to a science-oriented "SOO" mission. (Bunk space limitations on the Polar class icebreakers mean that the vessel in effect cannot do both science and crew rotation on the same trip, without transfers at a port stop.) In the end, due to numerous uncertainties the choice of how to proceed was left to the Coast Guard and no formal announcement of opportunity to participate was issued by the AICC.

### **4. HEALY science systems testing**

Mostly due to outstanding work by John Freitag (UNOLS RVTEC) and Jack Bash, a science systems testing program for USCGC HEALY is rapidly taking shape. This is science-oriented testing, and differs substantially from the builder's-type tests that are part of construction acceptance. An announcement of opportunity was broadcast, all tests were subscribed without controversy, the UNOLS Office solicited actual subcontract proposals, and a \$500k proposal was submitted to NSF to cover the testing of the indicated systems.

### **5. Long coring from HEALY**

A major recurring issue has to do with details and capabilities of the HEALY's core handling system. Community input result in a shift in the maximum core length specification to 30 m, necessitating, if provided, a number of expensive modifications which at times could interfere with other science operations. A good bit of e-mail traffic continues about this issue.

## **6. MST staffing strategy**

The AICC has reviewed and commented upon a Marine Science Technician staffing strategy proposed by the Coast Guard for USCGC HEALY. The plan was an excellent start, although two primary concerns arose out of the AICC review: adequate provisions for tech support for true 24-hour operations and the training and science-time availability of the technicians.

## **7. HEALY science systems outfitting**

An ongoing effort of the AICC is to clarify the science systems, including spares and accessories, to be delivered with USCGC HEALY, and to recommend to the Coast Guard a prioritized "wish list" to eventually bring the ship into line in this regard with the large UNOLS vessels. This ranges from spare CTD systems to an isotope van.

## **8. 1999 (and beyond) SOO programs**

The first phase of the new Shelf-Basin Interactions initiative may bring unprecedented interest in using Coast Guard vessels for Science of Opportunity missions. This appears (at first glance) to derive partly from a much lower level of intended/funded ship support for this phase of SBI by NSF relative to the many scientists who for whatever reason anticipate sufficient research funds (from whatever sources) to participate, but without ship funds. At any rate, the straightforward process that led to the 1997 and 1998 SOO assessments may not be sufficient to handle demand during the SBI program.

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### **Report from the RVOC Committee Vice Chair - Steve Rabalais**

The 1998 RVOC meeting will be hosted by the University of Hawaii on 4-6 November. A tentative agenda will be circulated in July and will include:

- UNOLS Reports and Committee Updates
- Agency (NSF, Navy, NOAA, etc.) Reports
- Special Reports to include presentations from operators of foreign vessels, and updates on new vessels and conversions
- A review of the charter experience on the EWING presented by Paul Ljunggren.
- One afternoon will be dedicated to seminars relevant to operators. Two topics under consideration at this time are:

Option 1: STCW Awareness Training( ABS Seminar)

The impact of the 1995 Amendments to the International Convention on the Training and Certification of Watchkeeping for Seafarers. Issues to be discussed include transitional provisions, certification, new requirements and various training information.

Option 2: ISM ( ABS or P & H Marine Associates or others to make a presentation)

Over view of the International Safety Management(ISM) Code. What are the requirements of the ISM Code? How do you become certified and who can issue the certificates? What kind of audits are required? Who does this apply to research vessels? What are the implications of being certified and not being certified with the increased emphasis on port state control? How do you go about implementing the ISM Code?

- Marine Superintendents round table discussion

### **RVOC Committee Reports:**

Safety - The Safety Committee met on 10 June to review a draft version of the Science Safety Video under production by Jamestown Marine Services. The film, with an Introduction by Dr. Robert Gagosian, was shot on board the R/V ENDEAVOR with special effects and graphics provided by Jamestown

Marine. After minor editing corrections, as recommended by the Safety Committee, the final version will be ready for distribution on July 3. Master copies will be provided to the UNOLS office and each UNOLS Operator. UNOLS will retain the right to copy and distribute the film as they deem appropriate. The Safety Committee was very pleased with the rough draft and felt that with revisions the film will provide valuable information to the scientists using our ships.

The Committee also reviewed their progress with current revisions to the RVOC Safety Standards. All chapters are complete except Chapter 4 - Stability. After some discussion it was determined that the majority of this section, as it exists, is not relevant to the context of the Standards and will be removed. A condensed version of stability, as it pertinent to the operation of an academic R/V, will be provided by Joe Coburn. The final copy will be available for review by RVOC and UNOLS before the 1 January 1999 deadline.

A discussion of STCW regulations and their application to U.S. academic R/V's followed. New interim rulings from the US Coast Guard are not clear as to how the new IMO standards are to be applied beyond commercial vessels. This in conjunction with existing ambiguities in U.S. code governing the operation of uninspected (undocumented) research vessels moved the Committee to consider addressing this issue through more direct discussion. A letter of intent is being prepared and will be circulated through RVOC after review by the Safety Committee. This letter will announce the Committees intentions to investigate, through independent council, if necessary the intended application of recent IMO rulings as implemented through the U. S. Code. While this investigation will focus on the new guidelines it is anticipated that the status of uninspected vessels relative to existing regulations will be addressed.

In addition to the developing the Science Safety Video and revising the RVSS the Safety Committee has been asked by the U.S. Coast Guard Maintenance and Logistic Command, Pacific (Vessel Specification Branch) to review the Handling Hazardous Waste Shipboard procedures to be used on the Polar Class vessels and the HEALY. The review is in progress and the Committees report will be forwarded to the Coast Guard before the end of next month.

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