

# UNOLS COUNCIL

## Meeting Report

Naval Oceanographic Office  
Stennis Space Center  
Building 1002, Room 162  
Stennis, Mississippi  
8-9 February 1996

### Appendices

- I. [Council Meeting Agenda](#)
- II. [Meeting Participants](#)
- III. [ALVIN/ROV Operations Summary](#)
- IV. [CAPE HATTERAS Mid-Life Refit & BLUE FIN Replacement](#)
- V. [Ship Scheduling Overview](#)
- VI. [NOAA Brochures](#)
- VII. [NAVOCEANO Overview](#)
- VIII. [Projections for UNOLS' Future](#)
- IX. [B. Raleigh Letter dated 17 Jan '96](#)
- X. [Draft High Latitude Facility Charge](#)
- XI. [Guidelines for Becoming a UNOLS Vessels](#)
- XII. [SeaNet Update](#)
- XIII. [KNORR Indian Ocean Statistics](#)
- XIV. [ATLANTIS Modifications](#)
- XV. [Telecommunications Bill](#)
- XVI. [Defense Authorization Conference Report - GPS](#)

### **February 7, 1996**

#### **NAVOCEANO FACILITY TOUR**

Captain Dieter Rudolph began the day's activities by providing an overview of the NAVOCEANO facility, organization and Fleet.

He was followed by Bob Barrett, Code N-5. Bob provided an overview of the NAVOCEANO Fleet capabilities and assets. The TAGS 60 Class construction is coming to completion. These will serve as multi-purpose hydrographic survey ships. Approximately 95% of the data they collect (not classified) is released. Data can be accessed on their home page (<http://www.navo.navy.mil>). NAVOCEANO recently acquired USNS WATERS. In May, the ship will undergo a yard period to make it capable as a survey ship. The ship is scheduled to be operational by 30 September 1996. The ship is 456 feet in length, has a 69 foot beam and berthing for 91 personnel (30 to 33 berths of these berths are designated for crew). A multibeam system will be installed. Lastly, Bob discussed the features of ORCA. ORCA is 26 feet long untethered vehicle, weighing 8600 pounds and running on diesel fuel. It can go 24 hours at ten knots. It is designed to be a cost-effective collection platform for hydrographic and oceanographic data. If the TAG 60 transformer problems are resolved, ORCA will be put on the ship in April.

A presentation on NAVOCEANO's Integrated Data Management System was presented by Bob Starek. It is a flexible system. The goal is to make it available on the World Wide Web.

Steve Lynch, NAVOCEANO, gave a presentation of their visualization lab. He showed an impressive video made from data collected during a January cruise on KANE. Side scan and dredge data was

collected. The video is a "fly-through" of the New River area off the U.S. East Coast. It took approximately one week to process the data.

The NAVOCEANO presentations concluded with a tour of their super computer and WSC.

## **REVELLE/ATLANTIS TOURS**

Meeting participants traveled to Halter Marine Inc. (HMI) in Moss Point, MS to tour REVELLE and ATLANTIS. Tours were provided by Ed Peterson, Scripps Shipyard Rep; John Thompson, WHOI Shipyard Rep; and Robert Camp, HMI.

## **FEBRUARY 8 & 9, 1996**

**CALL THE MEETING** - The UNOLS Council met in Room 162, Building 1002 at the Naval Oceanographic Center in Stennis, Mississippi on February 8 and 9, 1996. The meeting was called to order at 8:30 a.m. by Ken Johnson, UNOLS Chair. The meeting agenda is included as [Appendix I](#) and the list of meeting participants is included as [Appendix II](#). These minutes reflect the order in which items were addressed.

**WELCOME ABOARD** - Captain Dieter Rudolph welcomed the Council to Mississippi and provided the opening remarks. He displayed a model of the USNS WATERS. NAVOCEANO has recently acquired the vessel from the Navy and will convert it for use as a survey platform. A major initiative for NAVOCEANO is to introduce "cross-learning" projects. They would like to share lessons learned with the academic community. This could include establishing NAVOCEANO/UNOLS exchange programs for scientists and technology. Additionally, NAVOCEANO has established a home page on the World Wide Web (WWW). The community can gain access to data and survey ship schedules through their home page.

**ACCEPT MINUTES** - The minutes of the [12-13 September, 1995 Council Meeting](#) were accepted as written.

## **COMMITTEE REPORTS**

**Research Vessel Operators' Committee** - Mike Prince, RVOC Chair, reported on the Committee's 1995 meeting and plans for the upcoming year. RVOC's Annual meeting was hosted by Scripps in October. Along with the member operators, representatives from U.S. funding agencies, Sea Education Association, MBARI, ASA, STRI, IOS, Canada, NERC, Chile and Mexico attended. Speakers were also invited to discuss various topics. George Ireland provided a regulatory update. An AAUS report was given on diving issues. A Maritime Health Services representative answered questions relating to their services. Dennis Nixon reported on liability and insurance issues. The second day of the meeting was held at Scripps Marine Facilities. Demonstrations of WWW home pages were provided by Scripps and U.Washington. The Safety Training Manual, Chapter 1, can now be found on both the U.Washington and UNOLS home pages. Workshops were held on the development of a UNOLS White Paper, Post Cruise Assessment Reports, physical standards and safety issues. A visit was made to SWATH Ocean to tour MBARI's new vessel, WESTERN FLYER. Since the meeting, the vessel has been delivered and is now at the dock as Moss Landing.

The 1996 RVOC meeting will be hosted by Florida Institute of Oceanography/University of South Florida on 22-24 October. Smithsonian Tropical Research Institute has been selected as the site for the 1997 meeting.

Mike finished by reporting that anyone wishing to review an oil spill response plan, can get copies from Scripps or Woods Hole. Also, the revised Research Vessel Safety Standards have been published and distributed by the UNOLS Office.

**DEep Submergence Science Committee (DESSC)** - Mike Perfit, DESSC Chair, began by reporting that

ATLANTIS has been designated to be the new support ship for deep submergence operations. The vessel has great potential for meeting the research needs into the future. A DESSC meeting was held on 9 December for Committee members to be updated by the agencies on the status of ATLANTIS II's replacement. DESSC held their annual planning meeting on December 10th, preceding the fall AGU conference. The community was invited to this meeting. PIs who used ALVIN over the past year were invited to speak on their respective cruises. Additionally, a report was made by a PI who used the Navy's TURTLE and ATV. In 1995, ATLANTIS II had 282 operating days and ALVIN conducted 170 dives. Dives averaged 8.1 hours in duration. WHOI's Deep Submergence Operations Group (DSOG) now has a home page (<http://dosgserv.who.edu>). WHOI operators reported on projects which were either completed or underway for the various vehicles. Jason/Medea completed projects included control van rewiring, Medea replacement and debugging telemetry lockups. Underway projects for Jason/Medea include improving documentation, manipulator testing, revising the design of the lower payload skid and improving self rescue capability. ARGO II projects which were completed this year include improvement of obstacle avoidance forward looking sonar and implementation of single van operations. Projects underway involve determining camera focus problems, improving thrusters for heading control, resolving noise on LBL transducer and improving documentation.

Mike continued by reporting that a proposal for a sonar upgrade for ALVIN has been submitted to NSF. A proposal has also been submitted to ONR for navigation upgrades which will be applicable for ALVIN and ROVs. A proposal for imaging improvements was funded and is underway. A host of new equipment was tried on ALVIN this year including lasers, the rock drill and gravimeter. The community expressed a need for DESSC and the operator to continue with efforts to increase ALVIN bottom time. The operator has performed a study comparing the various types of batteries now being used by submersibles. Additionally, the operator will continue investigating ways to increase payload. DESSC is still developing a proposal for purchase of an electronic still camera. The Autonomous Benthic Explorer (ABE) was deployed this year from AII. It worked very well.

Mike presented a schedule of key events for ATLANTIS, ALVIN and AII along with a timeline, see [Appendix III](#). At the completion of science operations in 1996, AII will come out of service. ALVIN's overhaul will take place between September 1996 and April 1997. The actual overhaul should only take five to six months, however, some added time will be needed for the ALVIN group to become familiar with the new ship. Modifications to make ATLANTIS a submersible support ship are expected to be complete by April 1997. The ship will arrive at WHOI on 6 May 1997. DSOG demonstrations and trials will be conducted between 20 May 1997 and 3 June 1997. ATLANTIS will be available for science in traditional operating areas (MAR, NEPR, JDF, etc.) between June and December 1997. The ship will be available for unlimited science operations by February 1998. At this time a global expedition to the more non-traditional ALVIN operating areas can begin.

Dick Pittenger reported that WHOI still hopes to sell AII. Since the vessel will be taken out of service this year, they are looking for stories and past facts about experiences on ATLANTIS II. These stories will be shared at the vessels sending off ceremonies. Dick asked that a notice be included in the UNOLS newsletter requesting stories.

Mike continued his report with a review of ALVIN/ROV 1996 operations and plans for the out years, see [Appendix III](#). In 1996, 53 ALVIN dives are scheduled. Operations will end in June. It is unclear whether operations planned by the British will be funded. Three ROV cruises are planned for a total of 117 days. Work will be on the Mid-Atlantic Ridge, Juan de Fuca and Southern East Pacific Rise.

The number of letters received for ALVIN use in 1997 was relatively low compared to past years. This was most likely due to the uncertainty of when and where ALVIN would be operating during that time frame. ROV interest continues to increase. Interest areas are dispersed and include the Atlantic, Mediterranean, Juan de Fuca, Northern EPR, Southern EPR and the Indian Ocean.

The DESSC meeting included a report for operators of other deep submergence facilities. CDR John Green reported on the Navy's deep submergence operations. Debra Stakes reported on activities at MBARI which included an update on the construction of MBARI's new ROV support vessel, WESTERN FLYER along with a description of TIBURON, their ROV under development. Steve Scott of Canada

provided a report on ROPOS.

Dan Orange and Cindy Van Dover were charged with surveying the community to see what they would like to have considered as upgrades for the deep submergence facilities. These upgrades, if funded, could be performed over the long term, five to ten years.

Mike reported that the DESSC meeting addressed long-range planning for deep submergence operations and funding. The biggest challenge will be to build new partnerships for increased support of deep submergence. NSF has expressed concern that costs continue to go up and support from other agencies is decreasing. The community needs to get involved. WHOI's challenge will be the integration of manned and unmanned operations.

**Fleet Improvement Committee (FIC)** - Chris Mooers, FIC Chair, reported on the FIC meeting which preceded the Council Meeting. There are three new members to the FIC: Larry Atkinson, ODU; Bess Ward, UCSC; and Tom Weingartner, U.Alaska. The FIC meeting had a very full agenda which addressed numerous topics. Chris reported that the Safety Orientation paper is close to completion, and just minor revision is required. Suzanne Strom had put the paper together and feels that this is a real issue which needs heightened awareness. Chief Scientists need to take some responsibility when it comes to safety measures. RVOC is planning to put together a video highlighting important safety tips. FIC made a number of recommendations which included requiring science parties to attend a safety brief prior to setting sail and establishing physical standards for the science party. The safety orientation paper will be published in the UNOLS Newsletter along with a cover letter by Ken Johnson.

A van study has been prepared by FIC and is also close to completion. After inclusion of references to USCG and ABS regulations regarding vans, the study will be provided to RVOC and RVTEC for their review.

As a new initiative, FIC will begin a study to address shipboard technology upgrades. Eric Firing was recommended to chair the committee.

Coastal Zone Research Vessel (CZRV) planning is still underway, however, a path of action will not be decided until FIC learns the funding status of MARCO's proposal to hold a workshop and develop a science mission plan. Duke has received information from a naval architect that it is possible to add a mid-section to CAPE HATTERAS without causing the ship to exceed 500 gross tons (allowing it to remain uninspected). It is the intention of Duke to proceed with a proposal to NSF for a Phase I, feasibility study (see [Appendix IV](#)). Ken and Chris will draft a letter to Duke encouraging them to communicate with MARCO regarding their plans for CAPE HATTERAS. In other ship news, Skidaway is investigating the replacement of BLUE FIN. They have retained a naval architect and are looking at a mono-hull design of 87 feet for a replacement vessel, see [Appendix IV](#).

Chris reported that he had distributed to FIC a draft outline and for the Fleet Improvement Plan 1998. A few items were added and additional adjustments will most likely be made after preparation of the Interim FIP. Each committee member was asked to review the FIP outline and identify at least five items they could address. Assignments would be made at the summer 1996 meeting. At FIC's winter 1997 meeting a rough draft could be reviewed with a full draft by summer 1997. In the mean time, FIC will develop an Interim FIP. They will wait for a charge from the Council on what needs to be addressed by the Interim report. Hopefully, a clearer picture of NOAA's direction will be available for this report.

Chris reported that his draft White Paper on Regional Consortia has not been revised since the last meeting. Consortia work, but are not always active. He suggested that it would be a good idea to re-look at consortia to determine what are their good features.

**Ship Scheduling Committee (SSC)** - Don Moller, SSC Chair, reported on ship scheduling matters. The large ships ended 1995 spread out across the globe. In 1996 they will all make their way back to the U.S. Over the past year, both JGOFS and WOCE have logged 683 science days and over 100,000 nautical miles. All of the Southern Ocean operations were very successful with no lost science. Operations support will be faced with some uncertainties in 1996 since the NSF budget is still unresolved. Three ROV

programs are scheduled in three different parts of the world. The timing for the programs is very tight. No science programs have been left on the beach. The number of ship time requests for 1997 operations seems very low. There are at least three operators who have received no requests. The future of GLOBEC is unclear.

Don presented viewgraphs comparing operating days over the past three years, see [Appendix V](#). ALPHA HELIX shows a question mark since most of the funding decisions have not yet been made. CLASS I/II days are down by roughly 400 in 1996 and Class III days are down approximately 200.

**Research Vessel Technical Enhancement Committee (RVTEC)** - Rich Findley, RVTEC Chair, reported on the 1995 RVTEC Meeting held on 16-18 October. The meeting was hosted by Moss Landing. A number of initiatives were discussed and are underway. RVTEC decided to begin developing a library of instrumentation videos. Additionally, an inventory of the instrumentation will be posted on the RVTEC home page. The RVTEC home page can be accessed through the UNOLS home page. Redesign of cruise assessment reports was addressed. Marc Willis of OSU provided a report on data standards. RVTEC recommended that OSU submit a proposal to NSF for additional funds to complete the data standards study. NOAA presented a description of their NODDS program. Andy Maffei, WHOI, provided a report on the status of SeaNet. The RVTEC meeting included a tour of the MBARI and Moss Landing facilities. A demonstration on dissolved oxygen measurements was performed. The Chirp sonar systems used on ENDEAVOR and SEWARD JOHNSON were compared. Marc Willis was nominated to serve as Vice Chair. The next meeting will be held at Harbor Branch on 11-13 November. A cable manufacturer will be invited to speak.

## **AGENCY REPORTS**

**National Science Foundation (NSF)** - Dolly Dieter provided the report for NSF. She began by explaining that NSF is operating under a continuing resolution until 15 March. It is very difficult to speculate what the continuing resolution will bring in terms of funding. At the present time, NSF is working from the 1995 funding level. Funding ship operations and technician support will be a high priority. Little has been set aside for upgrades at this time with the exception of NEW HORIZON's mid-life which has been funded. Ship time requests for 1997 seem very low. Over the next five to seven years NSF is bracing themselves for a reduction in funding until the budget is balanced.

**Office of Naval Research (ONR)** - Sujata Millick provided the report for ONR. She began by citing that their budget has been passed. ONR is becoming more concerned with grant expenditure rates. This could affect science budgets. Although, ONR is getting their funding released to institutions, the funds sometimes gets expended by the institutions at a slower rate than anticipated. DoD is becoming concerned about these unexpended funds because they may be looking for additional support to pay off their debts, such as Bosnia bills. It is feared that unexpended funds may be swept up to pay off these debts.

The new formula for funding ship time by ONR (80% Research Facilities:20% Science Programs) is being well received by the science program managers. Some of the science program officers that are aware of the change have already requested additional ship time.

**National Oceanographic and Atmospheric Administration (NOAA)** - Captain Marty Mulhern provided the report for NOAA. He began by distributing new brochures describing NOAA's Fleet, see [Appendix VI](#).

The two NOAA Class I ships have had heavy schedules. BALDRIGE has returned from operations in the Indian Ocean via the Pacific, servicing the TAO array of moorings enroute. It's home port is now Charleston, South Carolina. DISCOVERER recently completed ACE/RITS work, and is presently on a WOCE/CO2 line in the southwestern Pacific.

In the Fleet Replacement and Modernization (FRAM) program, construction of RESEARCHER is proceeding smoothly, with delivery planned for August 1997. NOAA has benefited from the experience during construction of the THOMPSON, REVELLE, and ATLANTIS and cooperation with Scripps Institution of Oceanography, Woods Hole Oceanographic Institution, and University of Washington.

Conversion of KA'IMIMOANA (formerly the T-AGOS vessel TITAN) is nearly complete and the ship is expected to be ready for service by mid-April. The ship will be dedicated to support of the TAO array in the equatorial Pacific. BALDRIGE and DISCOVERER will be out of service by next spring when the RESEARCHER and KA'IMIMOANA are on line.

NOAA's budget future for the fleet is filled with uncertainty, but the long term trends appear to be toward decreases. The appropriations bill for FY 1996 hasn't passed. Under the present continuing resolution the FRAM program budget is about \$8 million, and the marine services operations budget is slightly decreased from last year. A complete review of the FRAM program requested by Congress has been completed and forwarded by NOAA to DOC and OMB. This report, often referred to as the "Carey study", has not been forwarded to Congress yet by the Administration.

The NOAA fleet is reducing overhead costs, and increasing the days at sea.

NOAA's Office of Oceanic and Atmospheric Research has specified long-term requirements for two and half "ship-years" annually. This equates to a full year of ship time on both KA'IMIMOANA and RESEARCHER, and a half year for UNOLS ship time. Marty reported that NOAA used PELICAN for fisheries research and the GLOBEC program used ship time on both UNOLS and NOAA ships in 1995. Additional time is now being scheduled for 1996 on PELICAN.

FOFCC had been reactivated and is gaining momentum. Issues to be addressed have been identified. Unfortunately, the government furloughs and record snowstorms have delayed meetings.

On January 24th, Dr. Baker signed a memorandum requesting that a plan be developed to replace NOAA Corps billets with positions within the General Schedule professional series, and to reduce and ultimately eliminate the NOAA Corps. Implementation would begin in October 1996 and be complete within six months. The agency is to have a plan drafted by the end of February on how to proceed. Until the plan is completed, reviewed, and adopted, it is unclear if NOAA ship operations will be affected. Marty quoted the following from Dr. Baker's memorandum, "I am concerned that the dedicated men and women of the NOAA Corps are treated fairly in this transition and given every opportunity to continue their careers with NOAA. They represent an outstanding human resource and I believe it is critical to NOAA that we retain their talent and corporate knowledge within our work force."

Marty was asked why NOAA decided to charter a Russian vessel for the NMFS Antarctic Marine Living Resources (AMLR) work near the Antarctic Peninsula. Marty explained that NOAA has repeatedly been directed to investigate availability of alternative sources of ships (and specifically the availability of fisheries research vessels from the private sector), that the AMLR program requires double-warp trawl winch capability, and the choice of vessel was determined by the competitive bidding procurement process. The AMLR charter was described in both a Request for Information "RFI" and Request for Proposals "RFP" in the Commerce Business Daily, and advertised elsewhere. NOAA did not go directly to UNOLS because it is a fisheries research program, UNOLS has not expressed interest in NOAA fisheries programs until recently, and UNOLS vessels are not set up for fisheries trawling. It is a one year charter with options for renewal for three additional years. Well along in the procurement process it became evident that because of funding and other limitations the trawling would have to be dropped during the first year, but it will be done in years two, three and four.

The AMLR charter cost was \$1,704,186 for 63 days underway and seven days in port, starting and ending in Punta Arenas. Ken voiced concern that this work could have been done from a UNOLS vessel at a reduced cost, and that UNOLS should be considered first for any NOAA charter work which its vessels can accomplish. Ken will draft a letter to Jim Baker voicing the concern of UNOLS regarding the charter to Russia.

**United States Coast Guard (USCG)** - CDR Rooth gave the report for the USCG. The Coast Guard is in the process of streamlining. They hope to have personnel reduced by 1000 billets in the next four years. CDR Rooth reported that the Canadian Coast Guard is also streamlining. They have formed a Marine Advisory Board which is in the process of establishing a fee structure for vessels that come into and out of their ports and use such things as aids to Navigation. By April, this may be instrumented. U.S. vessels

would be required to pay the fee.

The Coast Guard is pleased with the National Research Council report on Arctic research facility needs. The report makes recommendations to the Coast Guard on what should be done with HEALY to make it more science capable. The recommendations include reducing crew size and instituting a longer operating year of 270 days. CDR Rooth reported that the Coast Guard is anxious to establish an advisory board for Polar operations and science oversight of HEALY.

**Naval Oceanographic Office** - Pat Dennis gave the report for the Oceanographer of the Navy. BOWDITCH is expected to go off line soon and HENSON is scheduled for next year. The Oceanographer's modernization plan is expected to be complete in FY97 and result in a Fleet of eight survey ships. There is growing support for NAVOCEANO to work with UNOLS, however, potential conflicts with operations in EEZs will need to be investigated. If funding permits and schedules can be accommodated, NAVOCEANO would like to experiment with utilizing UNOLS vessels. Pat concluded by reporting that NAVOCEANO was very encouraged by the CEB study and will work to build strong partnerships between Navy, industry and academia. Admiral Tobin has been named as the new Oceanographer for the Navy. His background is in surface warfare.

**Naval Oceanographic Center (NAVOCEANO)** - CDR Darrell Smith provided a report on NAVOCEANO's Survey Fleet and assets, see [Appendix VII](#). He began by showing a map of the current locations of the survey vessels and aircraft. The assets are dispersed world wide. Darrell provided views of the profiles of each ship class. NAVOCEANO recently acquired the USNS WATERS. The vessel had been previously used by the Navy in SPAWARS operations. It is 457 feet in length and has four bow thrusters. The vessel will carry four HSLs and two ROVs for bathymetric survey work. A comparison table of the four classes of survey ships was provided. The TAG-60 Class is still experiencing transformer problems and as a result is presently speed limited. These problems are still being investigated. These ships are 329 feet in length and can carry 27 scientists. Other assets discussed by Darrell included "SHOALS" which is a laser airborne sonar system and the Oceanographic Remotely Controlled Automation (ORCA). Darrell provided a list of NAVOCEANO points of contacts for each of the UNOLS committees. The annual operating cost for a NAVO survey ship is approximately \$8M.

## UNOLS ISSUES

**Potential Changes on the Horizon for the UNOLS Fleet** - Peter Betzer lead the discussion on the recently published report "PROJECTIONS FOR UNOLS' FUTURE - SUBSTANTIAL FINANCIAL CHALLENGES". The report was written by a subcommittee which included Peter as Chair, Denny Hayes, Bob Knox, Chris Mooers, Dick Pittenger and Bob Wall. Peter first showed the view graph of the funding shortfall by year through 2000. Peter's view graphs are included in [Appendix VIII](#). This reflects a 13.2% shortfall in 1997 rising to 28% in the year 2000.

Denny Hayes noted that the Fleet has been living with an 8 to 10% shortfall for several years which may in fact be healthy for science. To operate at 100% or no shortfall would surely cause scheduling problems and would ultimately be detrimental to some science. A modest shortfall provides the flexibility necessary to ensure the correct platform is available for the science needs.

Peter followed with a bar graph, [Appendix VIII](#), which dramatically depicted the shortfall projections. These numbers do not include the addition of Arctic facilities such as the ARV or the USCG icebreaker.

The report includes five recommendations:

1. A review of the NSF funding projections confirm a significant shortfall in ship funding support in the near future and therefore, limited numbers of ship lay-ups should be considered.
2. New partnerships with other federal agencies such as NOAA, EPA, USGS, MMS, DOE and NASA should be pursued to seek additional support for the UNOLS Fleet.
3. New modes of ship support and operations should be investigated.
4. Alternative uses of the Class I ships should be sought.
5. Because of the very long lead time in new ship construction it is recommended that new facilities

continue to be planned.

Considerable discussion followed. Regional consortia were discussed as a way to increase partnerships and better coordinate facilities. Cindy Lee suggested that we needed a national way to share equipment for more efficient use of dwindling funds.

Ken Johnson informed the Council that the Fleet Improvement Committee was tasked to write an Interim Fleet Improvement Plan that would address the funding shortfall issue. This effort was to start immediately and the Council was to provide the tasking language. FIC plans to review three funding scenarios and the effects each would have on the Fleet. The work is to be started now via e-mail. The intent is to have well developed scenarios by the summer FIC meeting so that a near completed report could be the product of that meeting. This would then be passed to the Council for action during its summer session. A completed interim report would be ready for the membership at their September meeting.

After considerable discussion Ken agreed to write several letters in support of the Interim FIC report. One letter is to go to Mike Purdy urging NSF to update its long range planning program. A second letter to be sent to the directors of all UNOLS institutions with a copy of the Betzer report alerting them of the difficult times we face and enlisting their support.

Barry Raleigh attended the Council meeting and gave a presentation on SOEST's plans for acquiring a ship to replace MOANA WAVE, see [Appendix IX](#). The institution feels strongly that they should continue to be a ship operating institution because of their strong oceanographic programs as well as their geographic position in the middle of the Pacific. The institution's plan would be one of the following in order of priority: (1) acquire a new class one SWATH vessel, (2) be the operating institution for the new NOAA AGOR or (3) operate a Class I ship presently at another UNOLS institution. Barry made the point that concentrating the UNOLS Fleet in two or three operating locations did not make sense. Statistics do not support the cost savings and the broad based institutional support both financial and political would be lost. Barry explained that the University of Hawaii is very anxious to keep the pier facilities at Sand Point and if MOANA WAVE were to leave without a replacement SOEST could lose the facility. This would be a loss to the entire oceanographic community which uses the facility on a regular basis.

Barry was asked whether an intermediate ship would serve the SOEST needs. His answer was no, that SOEST had a strong MG&G program that needed a world ranging ship. When asked if SOEST would agree to coordinate the design process through UNOLS, developing mission requirement statements and design scrutiny by the community, Barry said that they would. Because this process could take some time and the need to retain the Sand Point facility is of importance it was suggested that MOANA WAVE, K-O-K or possibly a NOAA ship could act as a place-holder for the facility until the new vessel could be built. This suggestion was not met with total enthusiasm.

Ken Johnson reiterated the Council's position that there is a need for SOEST to continue to be a UNOLS operating institution.

**Arctic Facilities Committee** - Tom Royer started the discussion by briefly reviewing the conclusions of the National Research Council's Arctic Ocean Research and Support Facilities report. This report suggests three possible configurations of an icebreaker fleet: (1) Do not build HEALY and build the ARV; (2) Do not build the ARV, build HEALY and operate it in a dedicated research mode; and (3) Take one of the Polar-class icebreakers out of service and build both HEALY and the ARV. The report suggests that option two is most likely and recommends that the USCG and NSF increase their coordination and cooperation for operating icebreakers in a research mode. It also recommended that the vessel operate 270 days per year, crew size be minimized and continuity of crew for onboard science support be maintained. Tom presented a comparison of the ARV and HEALY. HEALY will be able to carry more scientists, is more ice capable and the cost to NSF is less (\$20,000/day). The ARV is designed as a more capable science support vessel. Attributes include more/better science equipment, technical assistance and crew experience. The laboratories are significantly larger with better layout. HEALY has a staggging room but no Baltic room. As the result of the science committee input the Coast Guard has included the installation of a multi-beam sonar system, added the staggging room, rearranged science



spaces, increased area of climate controlled work and added additional transducer wells. The USCG is also investigating changes to traditional crew manning.

The USCG and UNOLS have been discussing a DESSC-like committee to establish the necessary communication between academia and the Coast Guard. The USCG has agreed to fund such a committee. A charge for the committee has been drafted and is included as [Appendix X](#). CDR Rooth stated that the USCG is very excited about the charge and is anxious to make a viable science platform. He emphasized that the committee is needed now. The Council endorsed the Charge, but recommended that perhaps OPP should be referenced. It was also recommended that coordination with AARCS could be beneficial. The Charge will be forwarded to Don Heinrichs. A list of potential committee members was compiled.

**JOI/CORE** - Ken reported that he and Jack Bash had met with Jim Watkins and Rick Spinrad of CORE. The purpose of the meeting was to look at those elements of UNOLS and CORE that are similar. It was concluded that an MOU should be developed for coordination with the two organization. Ken and Jack put together a draft MOU that CORE felt was too restrictive. The part that gave CORE a problem was that UNOLS should take the lead on issues relating to oceanographic ships. The Council suggested that we continue to pursue an MOU and that UNOLS should represent the oceanographic community on ship matters.

**FIC Studies** - Chris Mooers reported that FIC was completing two studies. The first is a Van Study that is being completed by Suzanne Strom and will be coordinated through RVOC and RVTEC. The second study on safety responsibilities aboard UNOLS ships is in its final stages of writing and should be published soon.

**FOFCC** - Ken Johnson reported that FOFCC was in a state of change and there has been very little activity at this time.

**Building New Partnerships** - Ken Johnson reported that now that the Betzer Report has been published, he will begin meeting with other agencies to build new partnerships. A meeting is planned in Washington next week to discuss the impact on UNOLS if NOAA operates fewer ships. The Council briefly discussed UNOLS capability in conducting fisheries oceanography. The academic community could benefit by the experience, but ship modifications would be need to be carefully scrutinized. (Note: The "Projections of UNOLS' Future - Substantial Financial Challenges" is available through the UNOLS Homepage.)

**Diving Safety Meeting Update** - Jack Bash reported that a small group met in San Diego to review the Diving Safety report that was written in 1990. The group concluded that the report was still valid but needed updating to it's conclusions and recommendations. These updates are presently in draft form and will be distributed and posted on the UNOLS home page when completed. A letter is being sent to ship operators expressing the need for diving safety awareness.

**Internet Update** - Jack Bash reported that UNOLS is increasingly using the Internet and the World Wide Web. The UNOLS home page includes copies of all meeting minutes and newsletters as well as various documents such as the [UNOLS Charter](#), [Safety Standards](#) and [Chapter one of the RVOC Safety Training Manual](#). The UNOLS Office is developing an on-line ship time request form and encourages all concerned to participate in its development. Comments are encouraged. The sample form is on the UNOLS home page at <<http://www.gso.uri.edu/unols/unols.html>>.

**UNOLS Designation of Vessels Less Than 100-Feet** - The Council discussed whether or not vessels of 100-foot or less should be given designations different from those of the larger UNOLS vessels. These smaller vessels operate more as regional vessels and as a result their schedules do not impact the operations of the larger vessels. However, it was pointed out that the more ships that operate to the UNOLS Safety Standards the better. The discussion was initiated by Smithsonian Tropical Research Institution's inquiry of whether or not they should submit a request to make their new vessel a UNOLS vessel. The Guidelines for Becoming a UNOLS Vessel were distributed to the Council, see [Appendix XI](#). An ad hoc committee was formed to reexamine the Guidelines for Becoming a UNOLS Vessel and also to evaluate the status of the UNOLS operator. The committee of three includes Bob Wall as Chair, Steve Rabalais and Tom Royer.

**UNOLS Council Membership** - The terms of Ken Johnson, UNOLS Chair; Peter Betzer, Vice Chair; David Karl and Tom Royer are expiring. Ken and Tom can run for second terms. A Nominating Committee of Peter Betzer, Bob Knox and Dave Karl was appointed. Peter will Chair the committee.

**SeaNet Update** - Rich Findley reported that a prototype of SeaNet, which is a method of bringing Internet to sea, was installed on THOMPSON in October 1995 and has been used successfully from the Indian Ocean, see [Appendix XII](#). Technical support for this program was provided by Andy Maffei, WHOI; Bill Martin, UW and Mike Relander, UW. The system uses Inmarsat B. One problem that did exist was the masking of the signal to the antenna causing a disruption in transmission. When the ship was positioned for a clear signal the system worked faster than shoreside Internet. Rich presented an analysis of the economics suggesting a significant cost reduction over slower data transmission rates using traditional Inmarsat A. Next steps in the SeaNet development include: (1) working closely with other UNOLS ships with further development of standard B interface to SCN, (2) Identifying a science cruise that requires high speed data requirements, and (3) Identifying other UNOLS institutions planning upgrades to Inmarsat B to assist in data considerations.

**White Paper on the Benefits of the UNOLS Fleet** - Jack Bash reported that a white paper is being drafted by Paul Ljunggren, Mike Prince, Jack and Ken. The paper should be ready soon. Dick Pittenger presented statistics of KNORR's Indian Ocean operations, see [Appendix XIII](#). The operations from all of the UNOLS large ships were a big success. Dick indicated that a paper will be prepared by Bob Knox, Denny Hayes, Robert Hinton and himself highlighting the successes of these global voyages. The paper will include the science objectives of the cruises.

**Primer/Small Boat Inventory** - Jack Bash reported that the UNOLS small vessel inventory is nearly completed on the web and can be accessed through OCEANIC at <http://www.cms.udel.edu>. The Primer on small boats is presently on hold. RVOC will be asked to work on this effort.

**Post Cruise Assessment Report** - Mike Prince reported that the RVOC has been working on changes to the Post Cruise Assessment Report. Change is needed to get a greater response by making the form mandatory and routed through the institution's marine superintendent for action and comment. The form should be constructed to easily generate statistics which do not rely on subjective interpretation. Ken Johnson offered to write a cover letter to PI's explaining how the forms are used.

**Methods for Assessing UNOLS Fleet Performance** - Ken Johnson discussed with the Council the idea of having a peer review system for evaluating ship operations. Considerable discussion followed. One concern was that this would be another level of paperwork and that it would be difficult to follow through. No action followed.

**DoC's Fishing Vessel Buy Out Program** - Jack Bash reported that the Department of Commerce had a pilot buy out program in 1995 to remove fishing vessels and fishing permits to relieve some of the pressure on fishing in the northeast. The initial program had \$1M and removed 13 vessels which were all destroyed. The 1996 program is planned for \$25M. DoC is receptive to the idea of having appropriate fishing vessels, accepted for the buy out, be transferred to research institutions rather than being destroyed. The UNOLS Office surveyed UNOLS institutions and received 15 requests to be involved with the program. The contacts at these institutions along with the vessel needs have been relayed to DoC. When the program gets underway DoC will work with UNOLS and the fishermen to see if some of the vessels can be used for research.

**Physical Exam Standards** - Jack reported that the RVOC has a subcommittee that is working on physical standards for crew members. Bill Coste is chairing this subcommittee which includes several RVOC members, Dennis Nixon, Dr. Jarris from MHS and an occupational health specialist from Duke. At this point the group is collecting information.

**Nuclear Submarine for Oceanographic Research** - Lloyd Keigwin has completed editing the report on A Nuclear Submarine for Oceanographic Research. It is presently at the publisher and should be distributed within six weeks.

**ATLANTIS Modifications** - On Wednesday 7 February the Council had an opportunity to travel to Halter Marine's shipyard and tour ROGER REVELLE and see ATLANTIS. During this visit the Council had an opportunity to discuss the changes to ATLANTIS and to see first hand the fine platform that will be the submersible handling ship. Dick Pittenger presented view graphs highlighting the vessel modifications, see [Appendix XIV](#). ATLANTIS will have four times the lab space of AII, more power and more berths. Even with the modifications for submersible/ROV handling, ATLANTIS will maintain its general purpose capabilities.

**Radio Operator/GPS** - Dick Pittenger reported that the Telecommunications Bill has been made into law, see [Appendix XV](#). This will exempt the UNOLS large vessels from the requirement to carry a Radio Officer.

On a positive note, the Dithered GPS is planned to be shut off after May 1, 1996. It is part of an authorization bill, but it has not yet been signed, see [Appendix XVI](#). Dolly Dieter is still working to get P-Code access for URI, L-DEO and U. Hawaii.

## **SHIP REFITS/CONSTRUCTION**

**NEW HORIZON** - Bob Knox reported that NEW HORIZON's mid-life refit is underway and the ship has been moved to the yard. NSF is cost sharing the refit cost on an 80:20 percentage (NSF is paying 20%). The vessel is scheduled to resume operations in May with a full schedule.

**POINT SUR** - Mike Prince reported that POINT SUR has just left the ship yard after completing an overhaul period and is back at Moss Landing. Every tank was inspected with no major problems revealed except with the sewage tanks. Piping was replaced in the engine room. The salt water piping is being replaced with copper-nickel. Fresh water piping is being replaced with copper. A new crane will be installed. The vessel will resume operations on 2 April. There are no plans to stretch the ship and no major mid-life is planned in the next year or two.

**CAPE HATTERAS** - Duke sent a report on the status of plans to stretch CAPE HATTERAS, see [Appendix IV](#). Naval Architects have indicated that the stretch can be accomplished without exceeding 500 gross tons (allowing it to remain uninspected). Ken and Chris will write a letter to Duke recommending that they review their plans with MARCO. Additionally he will ask that they assess how the ship modifications will better serve science needs.

**BLUE FIN** - Skidaway is proceeding ahead to find a replacement for BLUE FIN, see [Appendix IV](#). They are investigating support from their state and other outside sources for construction costs. They envision an 87-foot monohull replacement.

**University of Connecticut Ship Plans** - U.Conn has been making plans for the construction of a new vessel. The vessel will be designed to serve New England including the Gulf of Maine. They have been talking with the UNOLS Office during this design phase.

**CALANUS/ISELIN** - Rich Findley reported that U.Miami has received five bids for the construction of a replacement vessel for CALANUS. The vessel will be an 85-foot catamaran design. ISELIN is presently for sale.

**ATLANTIS/REVELLE Construction** - The Council toured the vessels on 7 February at Halter Marine Inc. REVELLE is scheduled to undergo builder's trials in March with delivery planned for June 1996. After transit to Scripps, the ship will have a fitting out period. The ship's 1996 schedule is very minimal. ATLANTIS will be modified to handle ALVIN and ROVs. Delivery is anticipated for April 1997.

**UNOLS Membership Dues Accounting** - Jack Bash provided an accounting of the UNOLS membership dues. As of 1 August, 1995, \$4,444.79 had been collected from member institutions. Expenditures total \$1,090.28, leaving a balance of \$3,354.51. Since expenditures have been low, a reduced dues amount will be assessed to each UNOLS Members this year.

**UNOLS Committee Appointees** - The Council approved the following committee nominations:

DESSC - Patty Fryer

RVTEC - Marc Willis, Vice Chair.

**Council Meeting Calendar** - Jack Bash will explore potential inexpensive locations to hold the summer Council Meeting. He will communicate options to the Council via e-mail.

*The meeting was adjourned at 3:45 p.m.*