

# UNOLS COUNCIL MEETING

February 16-17, 1999  
Rosenstiel School of Marine and Atmospheric Science  
Library Chart Room  
Miami, FL

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**Welcome and Introductions** - The UNOLS Council met in the Chart Room of the Library at the Rosenstiel School of Marine and Atmospheric Science on 16-17 February 1999. Bob Knox, UNOLS Chair, called the meeting to order at 0830. The items of the agenda, [Appendix I](#), were addressed in the order as reported below. The participants of the meeting are listed in [Appendix II](#). Dr Otis Brown, Dean of RSMAS, welcomed the Council and gave a brief history of the school.

**Accept Minutes** - The Council meeting minutes of 16 September were accepted as written.

## **Committee Reports:**

The UNOLS Committee Chairs provided written reports of their respective committee activities prior to the meeting, see [Appendix III](#). Bob Knox provided a summary of the reports.

**Arctic Icebreaker Coordinating Committee (AICC)** - The next meeting of the AICC is scheduled for March 25-26. The committee's relationship with the U.S. Coast Guard has improved dramatically since the formation of the AICC. The Committee has been very active with planning Science of Opportunity (SOO) exercises. They have also been working with the RVTEC in developing science systems testing for HEALY. There is still a question on whether the support for HEALY science will be an addition to the NSF budget. *(See related fiscal discussion under USCG report below)*

Jack Bash reported that the Coast Guard transferred \$500K to the UNOLS Office to support the development and implementation of HEALY science systems testing. There has been a very welcome and coordinated effort throughout the community to plan the testing. Mike Prince added that the Coast Guard marine technicians have been riding on UNOLS ships to become more knowledgeable on how to support marine science research. The USCG is also exploring the option of working with the University of Washington for additional technician support on HEALY.

**DEep Submergence Science Committee (DESSC)** - Bob Knox summarized the DESSC report that provided an update of their December meeting. The report also noted that WHOI's SEACLIFF engineering study is in progress. The 1999 ATLANTIS schedule is in flux due to a funding shortfall within NURP. The funding for a large ALVIN program in the Gulf of Alaska is in question. The scheduling problem is on-going and will be addressed further later in the meeting. Patty Fryer will report on plans for a deep submergence workshop later in the meeting.

**Fleet Improvement Committee (FIC)** - Science Mission Requirements (SMRs) for an Alaska region vessel have been drafted and circulated to the Council for review. The East Coast coastal vessel SMRs are still in development. The role of FIC is being reviewed by the committee and will be discussed later in the Council meeting. The UNOLS Fleet has been evolving without input from FIC. FIC plans to develop a Fleet assessment document that would hopefully become a useful tool in planning future fleet needs. The assessment document outline will be reviewed later in the meeting.

**Research Vessel Operators' Committee (RVOC)** - The RVOC written report provides a recap of the 1998 annual meeting. The meeting provided a series of presentations including one by JMS. JMS has been inspecting the non-Navy UNOLS ships for over a year. The contract for ship inspections will be rebid directly out of NSF later this year. There was a presentation on STCW awareness training that provided knowledge on the impact of the 1995 amendments to the International Convention on the Training and Certification of Watchkeepers. It appears that there will need to be some changes in Fleet operations to comply with new regulations.

RVOC is working to determine what is needed for UNOLS ships to comply with new regulations for uninspected UNOLS vessels. Most of the UNOLS vessels are not inspected. The safety committee will work to determine the interpretation of the new regulations. It may require hiring a consultant to work with the Coast Guard to obtain a clear interpretation. The international community seems to be ahead of the U.S. in this area. The major changes required by the new regulations appear to be in the area of documentation. It will likely be more burdensome, but in the end will be better for the fleet. There are guidelines on the length of time people can stand watch. Another area that will need to be further addressed is crewing. There is an issue of training requirements for scientists who play a role in deploying instruments. At the very least, it appears that scientists will need to document their operating procedures. We will need to assure that foreign ports will accept our documentation. In the next three to five years, insuring that the Fleet is in compliance with the new regulations will be a major effort. All ships over 500 gross tons will be required to comply by July 2002. CAPE Class vessels are less than 500 gross tons. Any ships larger than CAPE HATTERAS will most likely need to comply.

**Research Vessel Technical Enhancement Committee (RVTEC)** - It has been a busy year for RVTEC. They held their annual meeting in October in conjunction with INMARTECH '98. The RVTEC meeting included presentations by JMS and SeaNet. Sandy Shor, NSF, discussed changes to shipboard technical support funding. The changes should alleviate the funding problems faced by scientists in the event they are changed from one ship to another ship. The technical support will no longer be part of the science proposals. This is a work in progress. The question was raised on whether the science community was aware of this change in technical support funding. It was commented that a letter is being sent to proposal reviewers informing them about the tech support change. Additionally, it was suggested that the UNOLS Office should try to publicize the change by posting it on their web page. It was also recommended that institutions announce the change in their local newsletters. Tim Pfeiffer added that ONR is supportive of this change in technical support funding.

The RVTEC report also highlighted the INMARTECH '98 symposium. The international meeting went very well and drew in over 120 people from over a dozen different countries. Eight workshops were held on a variety of technical support topics.

**Ship Scheduling Committee (SSC)** - Revised ship scheduling procedures will be tried this year. The summer SSC meeting will be held later in the year in the hope that more of the funding decisions will be known by the time of the meeting. The schedulers will be asked to put together a list of programs, or "letter of intent," rather than a schedule. Schedulers will be encouraged to contact PIs regarding their specific program needs. The schedulers will hopefully get a better understanding of the programs

requirements before scheduling them. Jack Bash reported that distribution of the ship scheduling letters of intent still has not been settled.

In 1999, two major programs were factors in the 1999 schedules. This included work by the Navy for support of their LWAD programs. The other component is the NAVO work that has been a major factor in recent years. However, the continuation of this work into the future is a bit unclear at this time. The NAVO work has been a very positive addition to the UNOLS operations especially since it is spread across the fleet on both large and intermediate size ships.

The Council commented on the feasibility of getting agencies, as well as all program offices within NSF, to work to the same ship scheduling timeframe. OPP was singled out in that they are very late in making their funding decisions. This effects one UNOLS ship in particular. OPP will try to work closer to the timeline of Ocean Sciences.

## **AGENCY REPORTS:**

**Department of State (DOS)** - Tom Cocke began his report by commenting on a problem relating to firearms on ships calling at Brazilian ports. Recently a captain of a UNOLS Vessel was indicted for smuggling guns. Tom stressed the importance of applying for any permits required for carrying arms into foreign ports. Tom normally sends out clearance notices to the community, however, he has had a problem in posting web notices. Jack Bash offered to have the UNOLS Office assist in posting DOS notices. Tom also commented on the poor quality of his office's scanner and as a result the attachments that need to be sent out with the notices cannot be sent out electronically. Therefore, they need to be mailed out.

Tom reported on a problem with China regarding the use of drifters from a NOAA program. China wanted clearances for the drifters. There is a current policy stating that if the drifters are not specifically for marine science research, they do not need clearance. Since the NOAA drifters are meteorological in nature and used for severe weather indications, clearance would not be required.

Bob Knox questioned how AUVs would be treated in terms of clearance requirements. Part of the issue is liability. Another problem is that they may be perceived as spy equipment. At this particular juncture there will not be a change in policy and present policy does not require AUVs to report. However, with technology developing so rapidly, this area will need to be addressed. If there are any questions, Tom encouraged people to contact the DOS regarding current policy. If there is a joystick involved with the AUV operation, there may be a clearance required. If drifters are to be deployed in the open seas that eventually drift into an EEZ, there should not be a clearance required. The State Department will need to take the lead in this area and be the watchdog. Agencies are all aware of the situation.

Tom's clearance information is included as *Appendix IV*.

**National Oceanic and Atmospheric Administration (NOAA)** - Beth White reported that there would be a change in command at NOAA. Admiral Stubblefield will retire on March 1. Captain Evelyn Fields will be his replacement. RADM Albright retired and is being replaced.

Roger Parsons is the new commanding officer on RON BROWN. The ship just left Cape Town for operations in the Indian Ocean. They are using their new doppler radar equipment. After Indian Ocean operations the ship will head to Vietnam.

NOAA ship time scheduling for 2001/2 is underway. In the past, NOAA has often neglected including ship costs into their new initiatives. NOAA is trying to encourage their data acquisition groups to include these costs in their new initiatives budgets. The 2000 budget looks level. However, requests for 2001 are up and, if funded, will result in a major increase in ship time.

Bill O'Clock, NOAA/ONCO, reported on the Sustainable Seas Expeditions, see *Appendix V*. The Sustainable Seas Expeditions will explore the underwater rim of the United States. It is a multi-million dollar project of the National Geographic Society that will span five years. The program was funded through a \$5 million grant from the Goldman Fund in partnership with NOAA's national marine sanctuaries. The program will apply new submersible technology. This year operations will begin in April on NOAA's ship, McARTHUR along the West Coast. The program will continue on the East Coast using FERREL and will finish up in the Gulf of Mexico in September.

Julia Neander, NOAA/NOS, continued the NOAA report by commenting that the Coastal Ocean programs were successful in securing funds for ECOHAB and GLOBEC. GLOBEC operations will be in the Pacific NW in 1999.

**NOAA/National Marine Fisheries Service (NMFS)** - Jim Meehan reported on the NMFS activities and ship replacement plans. On the down side, NMFS started the year with a deficit of \$18M. Additionally, they did not receive approval for additional chartering funds. For the year 2000, NMFS had requested a major funding increase for chartering. This was not approved. A major portion of the chartering funds go to support work in the Alaska region. Most of the work is conducted using commercial boats. There is also some commercial chartering in the northeast region.

The 2000 budget will include \$50M for the construction of a Fisheries Research Vessel (FRV). The new ship may be a replacement for MILLER FREEMAN in Alaska, however, this is yet to be determined. The acquisition office for the new ship will be NAVSEA. The ship will most likely be ice strengthened.

The question was asked on whether the Alaska SMR requirement for NOAA use (1/2 year) would still apply once the NOAA Alaska FRV comes on line. Jim felt that the need is still there, but support will depend on congressional approval for chartering funding. The use of the FRV will vary throughout the year and will likely conflict with the heavy use periods of ALPHA HELIX. The highest demand periods for ALPHA HELIX is in the summer. However, there is some marine mammal research that would happen during the winter along the ice edge.

**National Science Foundation (NSF)** - Dolly Dieter provided the report for NSF. She presented the NSF Budget for FY99 and FY00, see *Appendix VI*. The budget shows a 6.9% increase for research with an overall increase of 5.8%. The OCE budget has increased every year since FY98. FY 2000 budget for OSRS is approximately \$125M. The 1999 Ocean Facilities budget for ship operations, equipment and upgrades totals \$32.2M. Technical service and instruments is budgeted at \$8M. All other items total \$5.4M for a Research Facilities total of \$45.6M.

The facilities emphasis is to:

1. Send funded science to sea,
2. Implement enhanced technical support, as an example, added SeaBeam support.
3. Safety and maintenance enhancement, and
4. Facilities upgrade. A specific example of this is the winch/wire symposium to address cable strength and winch requirements. An inventory of all cables is planned. Other facility upgrade items include a deep submergence symposium, an ROV upgrade, and a long core upgrade. The long cores will also be addressed by the winch/wire symposium. The winch/wire symposium will include RVOC membership, the scientific community and manufacturers. The last workshop took place almost twenty years ago and the last update of the manual was in 1988. The UNOLS Office will be submitting a proposal for this workshop. A steering committee will be put together to plan this event.

Academic Fleet Review - The Academic Fleet Review Committee will hold a final meeting in early March with their report and recommendations due in late March. Bob Knox gave a brief update on the Fleet Review for the benefit of the new Council members. The final report of the committee will be presented to the NSF board at their next meeting. The board will review it and provide recommendations. The recommendations will be acted on and reported back at their next meeting. The report needs to be accepted by the end of the year, otherwise UNOLS fleet operations will not have funding authorization

from NSF.

Associate Program Manager - Operations - NSF is hiring an Associate Program Manager to assist Dolly in some of her responsibilities. The position will be advertised in EOS. The UNOLS Office will also assist in its broad distribution. NSF would like to fill the position with an IPA.

Ship Inspections - NSF will re-bid the UNOLS ship inspection program. They have asked RVOC for their input on any pros and cons to the present system.

Proposal Guidelines - Major changes to the NSF proposal guidelines have been on hold until the Fleet Review process is completed. The only major change to the guidelines will pertain to the technician proposal. Ship equipment proposals are not expected to change much. Dolly noted that any form that will be used with NSF proposals would need to be approved by OMB. This could impact the use of the UNOLS electronic ship time request form.

**Naval Oceanographic Office (NAVO)** - Paul Taylor provided the report for NAVO and began with recent personnel changes. Paul is taking over the responsibilities of Gordon Wilkes who retired after 45 years of employment, (but is likely to return to NAVO as a contractor). Paul has been with NAVO for 36 years. Jim Trees will retire at the end of next month.

Paul provided a viewgraph showing scheduling and cost comparisons between 1998 to 1999, see [Appendix VII](#). A total of 460 ship days are planned in 1999. Eight UNOLS ships will be used. The total funding support for NAVO's UNOLS ship use and other support are \$7.5M. Paul continued with a summary of a breakdown by ship of the 1999 operations. NAVO's gravity survey needs will be completed in 1999 with REVELLE's 145 days of ship time. NAVO plans to put together a schedule for 2000, but there is no guarantee for funding. Their scheduling needs will be in place by the end of April. It was asked whether or not NAVO would have a need for large ships in the future. Paul felt that there would be a need for large ships. The possibility of working in foreign EEZs is still an issue.

**Oceanographer of the Navy (OON)** - Pat Dennis provided the report for the Oceanographer of the Navy. The newest Navy survey vessel, TAGS 64, will be launched on 25 March. The ship's name was selected through a national competition of grades K through 12, held during the Year of the Ocean. An elementary school in Cranston, RI submitted the winning entry, BRUCE C. HEEZEN. Over 2000 entries were received.

There is an additional \$58M in the budget for construction of TAGS 65. This is added to the \$16M that was already budgeted. TAGS 65 will be the last ship of its class.

Pat reported that there was \$1.2M in the budget for AGOR 26. This brings the total construction appropriation back to \$45M. A tax had been subtracted originally to support other military operations.

RADM Ellis is the new Oceanographer of the Navy. Additionally Rick Spinrad will be the new Technical Director for the OON. He brings a wealth of oceanographic research and administrative experience to the position.

**Office of Naval Research (ONR)** - Tim Pfeiffer, who is working in the ONR Research Facilities Office as an IPA, provided the ONR report. The decommissioning of MOANA WAVE is progressing on schedule. The ship will end UNOLS operations in June. It had been hoped that the ship could be transferred to Brazil, but the plans fell through. The plans now are to tie up the ship.

KNORR is supporting 75 days of Navy 6.2 work in 1999. The ship will pick up equipment for the field program in Panama City then transit to the Pacific work area before returning to WHOI. KNORR will begin its lay-up period in mid May. The total Navy support for ship time in 1999 is approximately \$18.2 M. This includes the KNORR 6.2 work, the NAVO ship time, and the traditional ONR work.

The Navy is keeping a watchful eye at next year's operations in the expectation of additional lay-ups for a large ship. They would like to have a plan in place if lay-ups become necessary.

**Consortium for Oceanographic Research and Education (CORE)** - A representative from CORE did not attend the meeting, however, Pat Dennis recommended that all Council members whose institutions are CORE members should check the CORE weekly reports. He also encouraged the Council members to know their local CORE representatives.

## **UNOLS ISSUES:**

**Public Outreach Plans** - Jack Bash reported on the past year's UNOLS outreach efforts. Outreach efforts have increased significantly over the past years. Last February, Ken Johnson held a Town Hall meeting at the AGU/ASLO conference. It was moderately attended, but those who attended provided useful feedback. In June, Jack Bash, Ken Johnson and other UNOLS representatives attended the National Oceans Conference in Monterey, CA. This conference had the attention of the highest levels of U.S. Government, with the President and Vice-President attending. Jack and Bob Knox attended NSF's anniversary, "50 Years of Oceanography."

A series of UNOLS publications were prepared over the course of the year. Jack Bash had a publication on the Fleet in *Sea Technology*. Jack Bash, Ken Johnson and Annette DeSilva published a paper on UNOLS in the *MTS Journal*. Larry Atkinson, Jack Bash, Ken Johnson and Annette DeSilva prepared a paper for the MTS Annual fall meeting that was published in the Proceeding report. Annette presented the paper at the MTS conference. Jack Bash and Annette DeSilva submitted and presented a poster for the AGU Fall Meeting. Jack and Annette have had book reviews published in the *MTS Journal*. Jack serves as the MTS Journal Book Review editor. Additionally, three UNOLS Newsletters were printed and distributed this year.

Ongoing activities include Jack's work with Peter Betzer (past Council member) to prepare an educational book on oceanographic research and facilities. The book will include chapters on various high profile, dynamic field programs. One chapter will be dedicated to research ships.

Beth White commented that NOAA has been involved with a "Classroom at Sea" program. The program is geared at 10th graders. The students visited the McARTHUR and RON BROWN prior to their cruises. The students then communicated with the science parties throughout their cruises, many times developing close bonds. Beth suggested that Jack might be able to apply some of the information from this program to the book he is working on.

## **LUNCH**

**NSF Academic Research Fleet Review** - Dolly Dieter provided an update on the Fleet Review in her NSF report. The Committee is preparing their final report. A lot of effort went into preparation of the information provided to the Committee, both from UNOLS and the agency representatives.

**United States Coast Guard (USCG)** - A representative from the USCG could not be present, however, a written report was submitted. Bob Knox summarized the USCG written report, see [Appendix VIII](#). Of particular interest was OMB's recommendation that the USCG seek full reimbursement for operating and capital costs of their icebreakers from non-DOD users. The Coast Guard has gone on record as recommending that the incremental reimbursement system presently in place be continued as the most equitable one. If this does not happen, the ships will not be competitive with other oceanographic platforms. The daily cost for science users of HEALY has been estimated at \$20k/day, which is roughly one fifth of the actual daily cost. It is unlikely that the community can afford to pay \$100k per day. There was concern and discussion by the Council on this issue. The community needs to watch this USCG-OMB interaction carefully.

If the Coast Guard is successful in defeating OMB's recommendation, there is the possibility that the ship would be required to split its duties between search and rescue as well as science. The science community was very concerned that in splitting its duties, the science mission would suffer.

**Introduction to the Session on Aspects of Future Fleet Evolution** - Bob Knox reviewed Pat Dennis' viewgraphs of the National Oceanographic Fleet and operational statistics, see [Appendix IX](#). He started by showing the National Fleet of 2000 by owner (Navy, NOAA, NSF, other Federal and University). He then went on to show the number of ships in the fleet in five-year increments beginning in 1975 and running until the year 2020. The table lists the number of ships by owner and type. The table clearly shows that the total number of ships will decline significantly by 2020 without the replacement of some ships currently in the fleet. Pat used the estimated useful ship life figures that were based on input received from the operators. Next Bob showed a chart that graphically represented this same information. The chart also shows a timeline of when events need to begin to adequately plan for the replacement and maintenance of the fleet capabilities. Significant advance planning is needed to maintain a capable research fleet.

Bob Knox noted the challenge facing UNOLS and posed a number of questions for consideration. How do we get from the Fleet of today to where we need to be ten to fifteen years from now in terms of replacement vessels? Can UNOLS maintain the balance needed to sustain the fleet yet at the same time not have an overabundance of new ships nor have a shortfall of ships? ADM Gaffney, Jim Baker, and Mike Purdy held a meeting in January on this very topic. Bob would like to write a letter to the chair of FOFCC on behalf of the UNOLS Council letting them know that we are aware of the scenario of the aging fleet and that we are willing to help in the planning. The Council approved this course of action. It was pointed out that one of the reasons the community goes to their local politicians for ship replacement support is because there is not a good Fleet Replacement plan available. Although FIC has in the past developed plans, there is no way for enforcement. The community can do little to prevent the unplanned political appropriations. It was also noted that there are no standard procedures for acquiring the funds for ship construction. It is the role of UNOLS to establish the facility needs based on the science research projections.

There was a discussion on the interaction of the NSF FUTUREs workshops with UNOLS. The recommendations of the FUTUREs workshops could provide a guideline for defining future research facility needs. Peter Brewer and Ted Moore are currently preparing a summary of the workshops. The FIC plans to invite either Peter Brewer, Ted Moore or someone from NSF to an upcoming meeting to provide a summary of the FUTUREs recommendations in regard to facility needs. It was pointed out that Fleet planning is one of the primary missions of UNOLS and that it is very important that we follow-up in these areas. It was commented that the science community might not appreciate the graphs provided by Pat Dennis. Instead, they need to know the research capabilities that they will lose when a ship goes off line and when these events are scheduled to occur. The other issue is that UNOLS needs to examine its short-term fleet surpluses while keeping the long-term needs in mind. It needs to be recognized that any permanent lay-ups of a ship or ships may add to a fleet shortfall in the future. Right now we are in unusual times with the end of most of the major field programs occurring simultaneously. What is in the future? The agencies are faced with the peculiar problem; with ships being laid-up, how do they propose funds for new ship construction. One suggestion was to plan for replacements based on the retirement schedules. The chart shows that there will be many ships coming off-line in the next 15 years.

**Alaskan Science Mission Requirements (ASMR)** - Larry Atkinson gave a brief history of the Alaska SMR development process. In early 1998, the Council had recommended the development of the SMRs based on the approaching retirement of ALPHA HELIX. They also recognized an interest in fisheries research in the Alaska region and recommended that the SMRs address the fisheries needs of NMFS. The SMR committee was made up of scientists who have been ship users in the Alaska region. Jim Meehan of NOAA's NMFS was also on the committee to provide fisheries research expertise. Additionally, input was provided by Joe Coburn, Bob Elsner and Bob Dinsmore. Their technical expertise was instrumental in making this SMR a feasible document. Larry Atkinson noted that for an SMR to be a realistic document it must require input from a naval architect.

The UNOLS Council was provided a draft copy of the ASMRs prior to the meeting for review. There was discussion on the SMR process in general and its usefulness. It was noted that this document is intended to document the science mission of vessel. The ASMR will hopefully provide Alaska with an idea of what the community would like to see in a vessel that is intended to work in this area. The requirements outlined in the ASMR document exceed the capabilities of what is currently offered on ALPHA HELIX.

There was a discussion on how a replacement for ALPHA HELIX will fit into the rest of the fleet. Other ships that will and have worked in the area include HEALY, WECOMA, and a new NMFS FRV. The Council discussed the impact each of these vessels might have on each other.

The next step in the UNOLS design process after acceptance of the SMRs is development of a Concept Design where a naval architect is consulted to define the ship parameters needed to meet the mission requirements. The UNOLS Council approved the Alaska SMR document and encourages the University of Alaska to pursue the next step of a concept design. U. Alaska should be asked to keep operating costs in mind while progressing with the design process. Additionally, U. Alaska should be asked to keep the community (UNOLS/FIC) abreast of their progress. A motion was passed to draft a letter to the U. Alaska with these comments/recommendations for attachment to the SMRs.

**Future MCS Ship Needs** - Recently there was an article in EOS stating the need for a greatly enhanced MCS capability. Information on the seismic survey vessel, RAMFORM, was reported in the December 15, 1998 issue of EOS, page 615, see [Appendix X](#). Tom Shipley reported that there are increased science need in the areas of seismics and that it might be time to start thinking about new assets or upgrades to existing facilities. There is a need to be able to tow multiple streamers. It was noted that the RAMFORM vessel is dedicated to seismics and cannot handle the more general purpose oceanographic work. Although EWING supports seismic programs, it is also outfitted for other work and has a suite of winches. This allows the ship to be more cost effective in terms of transits and keeping daily rates low. However, it does limit its seismic capabilities.

**AGOR 26 Construction Update** - Pat Dennis began the update by reporting that it has been two years since the AGOR 26 appropriation and there is still no construction contract. Lockheed/Martin and Ingalls Shipyard originally were selected as the design and construction team. The appropriation for the entire design and construction is \$45M. Phase I, the design phase, is budgeted at \$1M. Phase II is budgeted at \$36M. The remaining funds are to support a variety of other items: NAVSEA support, institutional costs, testing, and post shipyard work. Ingalls provided a very high construction estimate in excess of the budgeted \$36M. Lockheed/Martin as a result re-bid the construction and American Marine Inc. (AMI) was selected. On March 1, the new construction estimate is due from AMI. If the estimate is below \$36M, it will go forward to design review on 10 March. There is an optimism that construction will begin by 28 March. The \$36M budget includes the funds for mission outfitting of \$5-7M. If the bid comes in over \$36M, the Navy and U. Hawaii will need to examine tradeoffs to the design.

There are still some unsettled issues associated with the design. It appears that propeller noise will provide a significant interference with the multi-beam system performance. The David Taylor modeling facility may explore the option of using a non-cavitating propeller. The size of the ship is roughly 2400 tons and 180-ft LOA.

It was questioned on whether existing SWATH vessels are performing up to their expectations. It isn't clear at this time. MBARI had problems with WESTERN FLYER, but once the structural problems are corrected, it will most likely perform as expected.

Jack Bash added that he is trying to put together four papers on SWATHS for the MTS fall meeting. The four that have been approached are the AGOR 26, T-AGOS-19, WESTERN FLYER and the WHOI SWATH. Dolly suggested also approaching the Japanese to present plans for their ship.

## **New Ship Construction:**

**BLUE FIN Replacement** - Skidaway had a challenging time trying to award the contract for construction of SAVANNAH. The construction bid came in at roughly one-third higher than planned. They had estimated it would cost \$2M, but the bid was approximately \$3M.

**CALANUS Replacement** - Tom Lee presented the status of plans for a CALANUS replacement, see



**Appendix XI.** Model tests for the vessel were completed over the summer providing information for minor design changes. U.Miami advertised a request for a bid and four yards bid on the ship's construction. The design and cost are now ready to be presented to their Board for endorsement. They will need to find additional money to support the construction. The need for a replacement vessel is justified for a variety of reasons. CALANUS use has been high in the last couple of years. There is high interest in restoration of the local marine sanctuaries.

The CALANUS replacement will be a catamaran. The design specifications indicate a length of 96 feet and a 40-foot beam. The ship is designed to carry 14 scientists. Staterooms are on the main deck with a few cabins in the hulls. It has a diving platform. There are plans for a removable moon pool. Lab space is 600 sq. ft. The ship can operate in the Caribbean and the Gulf of Mexico. The MRI request to outfit the ship was funded. Tom provided a list of equipment that the ship will have onboard. It will have a fiber optic network for shipboard computers. The cost of the vessel is estimated at \$4-\$6M and is still in negotiation. For an operating year of 160 days the daily rate is expected to be \$5 to \$5-1/2K per day.

**R/V CONNECTICUT** - A handout on the R/V CONNECTICUT specifications is included as **Appendix XII.** U. Connecticut has had many conversations with the UNOLS Office regarding application for UNOLS vessel status. [Unofficially it was reported that they have decided not to apply for UNOLS vessel status.]

**SEA CLIFF Report** - The engineering study to examine SEA CLIFF and the feasibility of using it or its parts to enhance our nation's deep submergence capabilities is underway. The report will be completed over the summer. SEA CLIFF has a 6,000 m depth capability. ALVIN's depth capability is 4500 m.

**The UNOLS Biennial Review of Sea Going Oceanographic Facilities** - Larry Atkinson reported on the evolution of the review. The FIC had been attempting to update the 1995 Fleet Improvement Plan, but progress was at a standstill. At the FIC's fall meeting they decided to pursue an assessment of the fleet as opposed to a plan. It is intended to look at the fleet operation trends and try to analyze them in regard to future needs.

The topics of the Review document have been posted on the OMNET SCIENCEnet bulletin board. The board allows people with access to comment on the topics of the report. All comments received are posted on the report. FIC members have provided their comments and input to the various topics. The topics include:

- Goals
- Future research requirements
- State of the fleet
- Trends in fleet use
- New assets
- New regulations
- Fisheries oceanography and the NOAA fleet
- NOAA hydrographic survey changes
- Technical support
- ROV/AUVs
- Ocean Observatories
- Dynamic positioning
- New sponsorship of coastal and estuarine vessels
- Coring
- Navigation
- Communications
- Summary

The Council discussed the Review document and agreed that it could be a good tool for strategic planning. It was suggested to add a topic on facility upgrades. Bob Knox recommended that at the

summer council meeting, Don Heinrichs could provide a report on what NSF would like to see as the FIC's role and as the Council role. Charlie Flagg reported that it would be nice to have a yearly status report on the fleet. This would allow us to identify the items that might need improvement.

Larry would like the Review document to be posted on the web and have it become a living document.

### **End of Session on Aspects of Future Fleet Evaluation**

**SeaNet** - A written report on the status of SeaNet was provided by Ellen Kappel prior to the meeting, see [Appendix XIII](#). The report gives an update on system installations by ship, billing/equipment system, and plans for the future.

**UNOLS Brochure** - The update to the UNOLS Brochure is approximately six months from completion. It will be somewhat similar in format to the current brochure. Ten years ago 10,000 copies were printed; we are now down to less than 200 copies. Vicky Cullen is preparing the update and is providing draft text for review as it is completed. Vicky received ship photos, but she is still looking for laboratory and deck operation photographs.

### ***DAY 2 – 17 February, 1999***

**Session on Scheduling and Related Issues** - Bob Knox introduced the session topic and discussed the importance and timeliness of the discussion.

**White Paper on Ship Scheduling** - Jack Bash reported that he had drafted a white paper to guide potential ship users on how to gain access to UNOLS ships. The draft has been circulated to the subcommittee and was included in the Council meeting package. Dolly commented that there is one area of the white paper regarding the electronic ship time form that will need to be resolved. Any form required for NSF proposals must be an official OMB approved form, such as the NSF 831. Jack recommended that we continue using the electronic ship time form while the legalities of the issue are resolved. Tim Pfeiffer suggested that we continue to use the UNOLS electronic form, but also research the feasibility of having this information feed automatically into an 831 form. Mike Prince, Bob Knox and Jack Bash will work with NSF to resolve the issue.

Jack asked that the Council read the draft white paper and provide him any feedback. It was suggested that the paper address foreign clearances and also the issue of what to do when you get swapped from one ship to the next. Another suggestion was to make the draft paper more procedural in nature with less text. A procedural flow chart with associated dates was also recommended. It was also suggested to include a link to a listing of ship capabilities.

Dennis Hansell discussed ways to distribute the white paper to new PIs. He suggested that a package be compiled and provided to venues that gather young scientists. It was also suggested to have the UNOLS Office present the material at these meetings.

**Post Cruise Assessments** - Jack Bash opened the discussion on the post cruise assessment process. Although this is a useful process that should continue, we need to determine a way to increase PI feedback. Only 65% of the PIs submit their assessment forms. Jack reported that as part of the NSF Fleet Review, he had compiled a post cruise assessment package for distribution to the Review committee. The committee seemed pleased with the material that was presented. The issue of how the forms should be distributed was also discussed.

To increase feedback from PIs and at the same time ease compiling efforts, Jack recommended that a preformatted disk with an assessment form be provided to each PI when they begin a cruise. They can then complete and return the diskette before leaving the ship. This would allow the information to be

submitted electronically and filed automatically into a database. It was also suggested that the form be web based or sent as an e-mail attachment. It was suggested that a numerical rank be assigned to the assessment questions so that it can easily be inserted into the database. This would also create a better filter and allow the data to be more widely distributed. Beth White suggested that Jack look at NOAA's new software package for cruise reporting. The software is menu driven and provides a database of information.

Tom Shipley recommended that the Council play a much greater role in the review of the assessment data. He recommended the formation of a Council subcommittee to review the data and provide any necessary recommendations. Jack was tasked to develop an electronic database system for post cruise assessment summary. Once the database is in place, a Council subcommittee will be considered.

**Ship Scheduling Improvements** - Jack reported on the status of the web based electronic ship scheduling improvements. The ship time request forms are up and running with a Section I and a Section II. The world map, which geographically plots each request, is also on-line. People are receiving it well, with only a few glitches. The ship scheduling form is still in development, but nearing completion. This form will be used by schedulers to post their schedules. The electronic schedules would automatically translate to a cruise track. The final electronic scheduling feature would be to take the posted schedulers and allow them to be automatically analyzed for economic efficiencies.

Mike Prince reported on changes to the ship scheduling process that will be tried this year. He included this information in his written committee report. He requested that the Council review the changes before he sends it to the schedulers for comment. The new scheduling process calls for all schedulers to meet in the summer when most of the NSF funding decisions are known. Most of the scheduling conflicts could be identified at the summer meeting. In September, the schedules would be reviewed by the SSC review committee. Any schedulers with conflicts might wish to also attend. The new schedule process requires the schedulers to provide a letter of intent listing all programs; this would replace the web posting of draft schedules. The letters of intent will be due in early May.

It was noted that there are programs being announced with deadlines other than the NSF deadline of 15 Feb. As an example, the GLOBEC work for 2000 has a deadline of 15 April. The new scheduling process attempts to have as many of the funding decisions known prior to the scheduling meeting, but it was recognized that it would be unlikely that all decisions would be known.

**Discussion of Scheduling Problems** - Bob Knox led a discussion on ship scheduling problems. There have been programs posted on ship schedules that indicate that they are funded; however, as time goes on they become undone. Bob gave some specific examples: GLOBEC 1999 (NOAA, NSF), ALVIN/ATLANTIS 1999 (NOAA/NURP), MELVILLE/PACS 1998 (NOAA/OAR), REVELLE/South China Sea 1999-2000 (ONR). It appears that NSF and NOAA have resolved the GLOBEC '99 problems and all ship time with the exception of four days will remain. MELVILLE/PACS 1998 (NOAA/OAR) problem arose late in the year, but was also later resolved. NSF funded the program for NOAA. NOAA's funding went to support El Nino studies. Lastly there is the REVELLE/South China Sea work which was listed as funded, but is now withdrawn and will not happen as scheduled. The other scheduling problem, the ALVIN/ATLANTIS 1999 NOAA/NURP problems, which also impact the THOMPSON schedule, have not been resolved. Bob asked the agencies for their comments on this subject.

The GLOBEC scheduling program was corrected by NSF providing a loan to NOAA. The problem resulted from NOAA not having adequate funds for their shiptime in 1999. For 2000, NOAA has requested the funds for the 1999 payback as well as the shiptime for 2000. The reality is that everything still depends on annual appropriations. Beth White commented that NOAA has gone through tremendous changes over the year and they are very much in the learning process. New people are doing new things. Complicating matters is that there is no central office within NOAA that funds ship time. Senior level management will be keeping a watchful eye on the process to prevent future problems.

Beth commented on the NURP ship time on ATLANTIS and noted that NURP is committed to fund the National Deep Submergence Facility at the level of \$500k. Without an annual NURP budget, it is very difficult to adequately plan operations. The problem was that 67 days were scheduled on ATLANTIS for

NURP Alaska programs. The WC NURP center was given strong suggestions that they would receive adequate funding. Although there is political pressure to carry out this work, the money is just not there at this time. The other NURP centers have tried to help alleviate the problem, but there just aren't enough funds available. The problem is receiving attention at very high levels.

The question was asked: From a scheduling standpoint, what should UNOLS do? Should NURP work be considered "pending."? The WC NURP Center was questioned repeatedly during the scheduling process on whether they were truly funded and the WC Center indicated that they were. It is unclear what UNOLS can actually do about these situations. If a program is listed as pending there is a strong chance that it will not be scheduled if there are other funded programs. It is hoped that the Leadership Council will consider these issues.

The REVELLE scheduling problem was not money related. The program in question is a collaborative project with a multi-nations involved. Planning for the project began early, but they have been progressing slower than they had intended. It appears that China will not allow access to two of the selected work sites. This finding came late in the planning process. Plans to find another work site are in progress. It was recognized that the plans would not be ready by 2000.

UNOLS will continue to work with the agencies to resolve scheduling issues.

### **End of Session on Scheduling and Related Issues**

**UNOLS Meetings with Washington Representatives** - Bob Knox reported that he and Jack had a series of meetings in Washington, DC. They visited CORE to meet with Terry Schaff. They visited NOAA to meet with Dave Evans and Don Scavia. The possibility of supporting NOAA Antarctic programs was discussed. They discussed operational cooperation in general and both hoped that the relationship between NOAA and UNOLS would continue and flourish. Bob and Jack met with members of the Resource Committee on the Hill. Many of these people already knew a great deal about UNOLS. They were a very interested and science supportive group. Bob felt that it was a worthwhile process and a start to a good relationship. Bob suggested that we continue to find useful ways to continue these types of outreach efforts. The 50th Anniversary celebration of NSF was attended by Bob and Jack. Bob, Jack and Pat Dennis met with the Oceanographer of the Navy during this Washington visit. It is valuable to pursue the continued relationship with NAVO.

**Plans for a 1999 Deep Submergence Workshop** - Patty Fryer gave a summary of plans for a Deep Submergence Workshop. The meeting would be three days in length and address three areas: Science directions, technology needs, and methodology. Patty provided a draft outline of the workshop agenda. A steering committee will be formed to help with the planning.

**NOAA Fishery Needs** - Bob Knox gave a brief history of the Antarctic NOAA fisheries work. A few years back, the NOAA ship SURVEYOR was used for the Antarctic Marine Living Resources (AMLR) program in this region. After that ship was retired NOAA went out for charter to meet their fisheries needs. A Russian vessel was selected for a 5-year charter. This charter is running out and a new charter will be needed for the period of 2000 to 2004. NOAA approached UNOLS, and UNOLS passed this information to operating institutions. SIO and WHOI expressed interest in the work. After a series of communications with Southwest Fisheries, a proposal was put forward to use KNORR and MELVILLE for the Antarctic work. Under the proposal, the ships would have been outfitted for fisheries work. This type of outfitting might also be of interest to the academic community. Southwest Fisheries determined that the proposal was too expensive and they have decided to issue an RFI. The work would be roughly three months of time per year.

**UNOLS/NMFS Memorandum of Agreement (MOA)** - Bob Knox reported that there has been no further action in this area since last meeting. Bob and Jack can take this on and send a letter to NMFS. They would suggest modeling the NMFS MOA after the OAR MOA.

**UNOLS Office Transfer** - The current UNOLS Office grant runs out on 30 April 2000. One proposal has been received to host the new UNOLS Office. A small advisory committee has been assembled. Garry Brass, Rachel Haymon, and Dennis Hansell will review the proposal and provide any comments/recommendations. This is likely to take place in March through e-mail communications. Their recommendation will be passed to the Council for vote. It will then be presented to the Membership for concurrence.

**UNOLS Charter Review** - The existing charter was approved by mail vote. Jack Bash reviewed the outcome of the votes on the various revisions to the Charter. The revision that amends the process for voting on Charter changes passed. The revision which provided editorial changes as well as providing a greater balance between Operator and Non-operator institutions passed. The one revision that did not pass was the one concerning the definition of membership (by institution vs. consortium). The change tried to eliminate the possibility of dual voting by members. It clarified the consortia issue. The Council was concerned that the current charter wording is rather ambiguous and this should be corrected. It was suggested that Clare, Bob, and Jack reword this section of the Charter. It can be taken for vote at the next Annual Meeting.

**Nominating Committee Appointments** - Bob Knox will appoint a committee following the meeting.

**Applications for UNOLS Membership** - NJMSC and SCMI both applied for membership to UNOLS over a year ago, their applications are included in *Appendix XIV*. The Council reviewed the NJMSC application and membership list and approved it for membership vote. The SCMI application was reviewed and it was noted that Don Newman has left their organization. Rick Pieper has indicated that he will assume the responsibilities. They are very much interested in becoming a member. They operate ships that they might be interested in bringing aboard as UNOLS vessels in the future. The Council approved their application for membership vote.

Bob recommended that both applications be forwarded for vote at the annual meeting. The organizations will be notified and sent a letter indicating that their application will be subject to any charter changes.

**Summer Council Meeting** - BBSR has offered to host the summer Council meeting. We will try to schedule the meeting for 13-14 July.

**September Council Meeting** - The week of the September 20th looks good for the Council and Annual meetings. These dates will be confirmed following the meeting.

**Annual Meeting Keynote Speaker** - It was recommended that we pursue a speaker to present the findings of the FUTURES report at the Annual Meeting.

**Executive Committee** - Bob Knox will appoint two new members to the Committee.

## **Other business:**

**An Integrated Ocean Observation Plan** - Bob Knox, as UNOLS Chair, had submitted comments to the plan. The Council recommended that it is important that we keep abreast of this item. They also noted that it might be applicable to the FIC Biennial Review document.

*The meeting was adjourned 12:20 pm.*