

# UNOLS Council Meeting Report

July 1-2, 1998

Whispering Pines Conference Center

W. Alton Jones Campus

University of Rhode Island

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## 1 July 1998

**WELCOME & INTRODUCTION** - The UNOLS Council met in the Sycamore Lodge conference room at the Whispering Pines Conference Center, W. Alton Jones Campus of the University of Rhode Island on 1-2 July 1998. The meeting was called to order at 0830 by Ken Johnson, UNOLS Chair. 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](#).

All participants introduced themselves and Ken asked for any additions to the agenda. Three items were added to the agenda, discussion on Science Mission Requirements (SMRs), ATLANTIS test schedule and discussion on RV BLUE HERON.

**ACCEPT MINUTES** - The meeting minutes of the UNOLS Council February meeting were accepted as written.

**COMMITTEE REPORTS** - Committee reports were provided in advance to Ken Johnson, and included as [Appendix III](#). The committee chairs provided updates not included in their reports. Below is a brief summary of these reports.

**Research Vessel Technical Enhancement Committee (RVTEC)** - Ken reported that RVTEC would be hosting the second International Marine Technician Workshop (INMARTECH '98) conference in conjunction with their annual meeting. INMARTECH '98 will be held on 20-22 October in La Jolla, CA. The regular annual RVTEC meeting will be held the day before this conference on the 19th. RVTEC has been playing a major role in lending support for the Arctic Icebreaker Coordination Committee (AICC) in their effort to provide science systems testing for the USCG's icebreaker, MICHAEL HEALY, currently under construction at Avondale Shipyard in Louisiana.

**Fleet Improvement Committee (FIC)** - The Fleet Improvement Committee has been concentrating its efforts in developing Science Mission Requirements (SMRs) for an east coast intermediate sized vessel as well as a vessel suitable for the waters off Alaska. This second vessel requirements will have ice strengthening and will be capable of fisheries research.

**DEep Submergence Science Committee (DESSC)** - The DESSC has been working on an archiving policy for data collected using the National Deep Submergence Facility assets. They are also developing a "White Paper" on deep submergence science. Plans are being discussed for a national workshop to address future deep submergence asset needs. The committee is also working on the update of their Terms of Reference.

**Arctic Icebreaker Coordinating Committee (AICC)** - The AICC has been working with the RVTEC and the USCG in developing test procedures for testing the science systems on the Coast Guard icebreaker, MICHAEL HEALY. The AICC also sees their role as a advocacy group for Arctic science,

similar to that of DESSC with the deep submergence community, and will be working on expeditionary planning for Arctic research. The terms of two AICC members will be coming up this fall. A brief discussion followed on the \$24M in the Senate budget for facility support of Arctic science. There has been no decision on whether there will be operation support for HEALY. Without a subsidized dayrate, the ship may be too expensive to the science users. The AICC coordinated a Science of Opportunity cruise for POLAR SEA which is currently operating in the western Arctic.

**Research Vessel Operators' Committee (RVOC)** - The RVOC will be holding their annual meeting this year on 4-6 November at the University of Hawaii. The RVOC Safety Committee has been working on a safety video that will be used by all ships as an introduction to safety for scientists using the ships. The video is in the final stages of production and should be distributed soon. This committee is also working on an update to the RVOC Safety Standards. RVOC has a Medical Standards Committee that is working on medical standards for crew of UNOLS vessels.

**Ship Scheduling Committee (SSC)** - Both Ken Johnson and Don Moller discussed the trends in ship usage. [Appendix IV](#) provides a summary of ship days from 1995 to 1999. The 1999 numbers were developed from the 23 June Ship Schedule Review Meeting and reflect the schedules as posted at that time.

Year	1995	1996	1997	1998	1999
Total Days	4877	4315	5096	5399	4690

For 1998 three ships were scheduled for reduced schedules (MELVILLE half year, EWING one third year and ENDEAVOR full years lay-up) however, additional work materialized rounding out their schedules into modestly successful years. In 1999 it would appear that KNORR will not have a schedule and will lay-up. All intermediate ships reflect light schedules for 1999. The smaller ships in the Fleet are very busy. NSF had tasked the large ship operators to come up with a lay-up plan. KNORR's lay-up represents this. In 1999, large ship totals are down roughly 100 days from 1998.

The UNOLS Fleet charge days by agency were discussed, see [Appendix IV](#).

## AGENCY and OTHER REPORTS

**Department of State (DOS)** - The Department of State report was provided by Tom Cocke. A meeting was held with Mexican officials concerning sovereign immunity and the boarding of NOAA vessels along with other clearance issues. At the time, it appeared that significant progress was made, however, clearances still remain difficult. This is of concern since there are three NOAA fisheries cruises coming up soon. Because the U S is not a signature to the Law of the Sea Convention clearances around the world are becoming more difficult and requiring more conditions causing the process to slow. Tom noted that Cuba requests have gone without response. Tom reported fewer clearance requests this year, probably the result of a reduction in funding of NSF proposals.

The personnel situation in Tom's office has improved somewhat with the hiring of Elizabeth Maruschak. She is being funded for half time by NSF through CORE and hopefully be able to work full time if funding from ONR and NOAA materializes. State is working on hiring a full time backup for Tom. This issue was addressed at the FOFCC meeting. FOFCC was supportive of Tom's need for assistance. Ken Johnson offered to write a letter to DOS expressing UNOLS support on the issue.

**National Oceanic and Atmospheric Administration (NOAA)** - Commander Beth White provided the NOAA report. NOAA's TAGOS vessel, RELENTLESS, has been renamed GORDON GUNTER. The ship will be converted for fisheries work and will replace CHAPMAN in the Gulf of Mexico. MILLER FREEMAN will undergo a major overhaul starting in August of this year. DAVID STARR JORDON is scheduled for a major overhaul in 2000.

NOAA is completing a design review and model test for the FRV 40. This is the proposed design for the new generation acoustically quiet fisheries research vessel. Three of these ships are in the Presidential Budget (one each for 2000-2002). AQUARIUS, the undersea laboratory, is soon to get its certification.

An agreement has been reached to lift the hiring freeze on the NOAA Corps. The agreement includes a new ceiling of 240 Corps officers with no flag rank and a civilian in charge. A bill in Congress would alter this agreement to include a flag officer and increase the ceiling to 264-299. In either case recruiting will not start until next fiscal year.

RON BROWN is scheduled to operate 240 days at sea in 1999. Two NSF programs, tentatively planned for BROWN could not be scheduled (funding was declined on one and equipment scheduling conflicts prevented the other).

**National Science Foundation (NSF)** - The NSF report was given by Don Heinrichs. His view graphs are included as [Appendix V](#). The NSF budget for 1999 is still pending and expectations remain the same as those reported at the February Council meeting in Galveston. The 1998 budget was flat when compared to 1997. In 1999 Ocean Science Research Support has requested a 13.7% increase. Facilities has requested \$56.96M representing a 9% increase over 1998. Both the House and Senate Committees have different versions of the NSF funding bill but both show an increase. The bill goes to conference in September.

In an effort to resolve the conflicts in funding the shared use equipment/technical support for sea going programs, NSF is considering removing this support from the research proposal grant. Requests for technical support would come into the Technical Services Program. This should help to eliminate the problems associated with variable costs to the PIs when schedules change and science programs are moved from one ship to another. Some elements of this will be implemented in 1999.

Rita Colwell has been confirmed by the Senate but has not yet been sworn in. She will replace Neil Lane as Director NSF when he takes over OSDP. The Geoscience Directorate will be putting together a

separate Facilities Plan of 5 years. It will respond to "What facilities are needed to implement the science plan".

The NSF newsletter is calling for an open solicitation to the science community to provide input to the academic fleet review.

Don reported that NSF will again conduct a performance review. They will most likely request assistance from the UNOLS Office in preparing the ship operations review section.

NSF is planning a symposium 28-30 October to celebrate the Foundation's 50th anniversary. Numerous leaders from the past have been invited.

**Naval Oceanographic Center (NAVO)** - Pat Dennis gave the report for NAVO. NAVO is completing a second year of funding ship time for the UNOLS Fleet. The third year funding is not firm, however, it looks promising. Pat explained that this should not be considered supplemental funding of the UNOLS Fleet but should be viewed as a mutually beneficial arrangement where NAVO gets quality scientific facilities and service at a cost effective rate while UNOLS is able to maximize its schedule efficiency with the added work. Pat reiterated NAVO's full satisfaction with the UNOLS Fleet and complemented CDR Jim Trees' energetic and supportive role in coordinating the work.

**Oceanographer of the Navy (OON)** - RADM Tobin has retired as OON and has been replaced by RADM Ellis. Ed Witman, Technical Director of the OON office, is also retiring. John Dalton, Secretary of the Navy, has announced his plans for retirement. These have all been active and vocal supporters of oceanographic research and will be missed.

The Navy is presently operating seven TAG survey ships. TAG 63 is the 4th of the class and will soon join the fleet. The fifth ship, TAG 64, is under construction and should be launched in November or December. A sixth and last ship of this class should be funded in the 1999 budget. TAG 64 has been named USNS BRUCE HEEZEN. A national ship naming competition was held by the Navy. Nearly 2000 proposed names were submitted by schools across the country. The winning class were the fifth graders from Oak Lawn Elementary School of Cranston, Rhode Island with the name Bruce Heezen. The runner up was St. Martin's Lutheran School of Annapolis, Maryland. More information on the contest and the winner can be found at <<http://www.oceanographer.navy.mil/winner.html>>.

**Office of Naval Research (ONR)** - Pat Dennis provided the report for ONR. Pat reported that ONR has budgeted \$5.5M facilities money for ship time support of oceanographic research. This money provides 80% of the funding while 20% comes from the science programs. This year KNORR was involved in a very successful operation with the Navy/Marine Corps when it supported a mine countermeasures operation off of Newfoundland. This was the first time Navy 6.3 funding was used by ONR for a UNOLS ship. It was suggested that an information package on UNOLS be developed. The package could be provided to groups like the Navy's 6.3 programs to describe the resources and capabilities of the UNOLS fleet.

**Consortium for Oceanographic Research and Education (CORE)** - The CORE report was provided by Dan Schwartz. A copy of the CORE viewgraphs is included as [Appendix VI](#). CORE has 51 members 35 of which are also members of UNOLS. CORE institutions receive approximately \$780M in Federal Support. CORE Projects include an Alumni Survey, Education inventory, Ocean science workshop/media cruises aboard SEWARD JOHNSON and CAPE HATTERAS, an Ocean Science Educators Retreat, Community College integration - MATE Program, CORE/NRL Postdoctoral Fellowship Program and Distinguished Visiting Scientists Program. CORE is actively involved in the National Ocean Science Bowl and the contractor for the National Ocean Partnership Program (NOPP) Office.

NOPP received \$20.5M in funding for 1997 with \$7.5M going to support NAVO surveys on UNOLS ships. In 1998, \$24.5M was received and again \$7.5M went to NAVO for UNOLS ship use. 72 proposals were submitted in 1998 for the NOPP funds, with 12 proposals selected for funding. CORE has been promoting the Oceans Act of 1998 which would convene a "Stratton Commission" type panel to review national ocean activities and recommend a coordinated national policy for the oceans. This bill is still working its way through Congress. The information on the FY99 appropriations visit the CORE webpage, <http://core.cast.msstate.edu>.

**United States Coast Guard (USCG)**- The Coast Guard was not represented at the meeting, however, Jon Berkson provided a written report which is included as [Appendix VII](#). The report provides a update on HEALY. This ship is presently scheduled for delivery in early 1999 with a delay possible. A 30-meter coring system is being designed for this ship by Jim Broda of WHOI. The USCG is concerned that science funding has not been identified for HEALY operations.

POLAR SEA is presently deployed to the Arctic. Academic scientists are aboard as part of a "Science of Opportunity" cruise. POLAR STAR will be making an Arctic trip in July. Both ships will also support the SHEBA program. There is concern with an OMB instruction to require the Coast Guard to seek full reimbursement for operating costs of HEALY for non-DOD users. The Coast Guard has gone on record in opposition to the OMB position.

## **UNOLS ISSUES:**

**NSF Academic Research Fleet Review** - Don Heinrichs provided an update of the NSF Fleet Review. The first meeting of the review was held at NSF in Arlington, VA on 8-10 June. The Review committee is chaired by Roland Schmitt, RPI retired, with committee members: Earl Doyle, Shell Development; Steve Ramberg, ONR; Hugo Bezdek, NOAA retired; Chris d'Elia, U. MD; Ellen Druffel, UC Irvine; Larry Mayer, U. New Brunswick; and George Weatherly, Florida State. The Committee Terms of Reference are included as [Appendix VIII](#).

NSF and UNOLS provided presentations to the Committee for the three days of the first meeting to provide a background on Fleet operations. The second meeting will be held at SIO in La Jolla, CA on 2-

3 September with a site visit of MELVILLE, SPROUL and ATLANTIS scheduled for 1 September. This meeting will provide projections of future science trends and cost comparative operations models. Tasking for the second meeting has been developed. A third meeting is tentatively scheduled for 10-12 November.

The committee's report and recommendations are expected in late 1998/early 1999.

NSF is seeking input from the science ship use community. Ken Johnson and Tom Royer will write a letter encouraging input.

**FOFCC Meeting Report** - Ken Johnson gave a summary of the FOFCC meeting that was held on 30 June in Arlington, VA. The meeting was well attended. FOFCC will be updating their 1990 Report on Federal Oceanographic Fleet Requirements. The new plan will include other facilities with the possible inclusion of buoys and submersibles. Ken provided FOFCC a report for UNOLS showing viewgraphs of the UNOLS Operating days over the last 20 year, operating days for 1998 by ship and UNOLS projected 1998 operations support. These viewgraphs are included as [Appendix IX](#).

**National Oceans Conference** - Both Ken Johnson and Jack Bash attended the National Oceans Conference in Monterey, CA on 11-12 June. The conference was considered useful in that it brought ocean issues to the highest levels of government and could result in funding increases for ocean research.

**Science Mission Requirements (SMR)** - Larry Atkinson, FIC Chair, led the discussion on the progress of developing SMRs for both an east coast research vessel and an Alaskan vessel. E-mail input has been received from all committee members working on the east coast SMRs. These will be consolidated with the original Class IV and III SMRs and prioritized. The East Coast SMRs should be ready in the fall. A conceptual design would be the next step after funding is secured.

SMR development is progressing on the replacement for ALPHA HELIX. An ice capability as well as a fisheries capability will be considered in the design of this vessel. Jim Meehan, NMFS and member of the SMR committee, commented on the fisheries capability of this vessel as compared to the NOAA FRV design. An update on the Alaskan SMRs will be provided at the fall meeting.

**New Ship Construction** - The replacement ship for BLUE FIN will be RV SAVANNAH. A contract for construction of this vessel is currently out for bid. The CALANUS replacement is still in the design phase. Florida Institute of Oceanography has a conceptual design for a replacement of SUNCOASTER. The new ship is planned to be 125 feet in length. More information on this ship is included in [Appendix X](#).

**AGOR 26 Construction Update** - Pat Dennis reported that AGOR 26 is under contract to Lockheed Martin/Ingalls and is presently in the design phase. This ship will be a SWATH hull form and will be operated by the University of Hawaii. A spread sheet with comparison design criteria is included as

**Appendix XI.** Phase I, the design phase should be completed by 29 October 1998 and is budgeted at \$1M. Phase II, the construction phase is budgeted at \$36M. Outfitting and testing will be included in the remaining budget.

A design review meeting is planned for 17 August. The Council voiced concern that UNOLS has not been kept abreast of the construction project nor have they been given the opportunity to provide input. Pat reported that at this time it appears that the design capabilities meet the Science Mission Requirements recommended by UNOLS. A "virtual design" website has been established by Lockheed/Martin. It was suggested that UNOLS be given access to the site so that they can keep abreast of progress on the construction.

FIC will be invited to review the AGOR-26 design progress at a 28 or 29 July meeting at the Lockheed/Martin facility in Sunnyvale, CA.

**Airships and Aerostats** - Jim Hain (Associated Scientists at Woods Hole, Inc.) made a presentation on airships and aerostats. A report by Jim titled Airships for Marine Mammal Research: Evaluation and Recommendations is included as **Appendix XII**. Ninety Five percent of the current activities of airships are involved in the corporate market. Four percent are used for surveillance and less than one percent are used for research. Lighter than air platforms are well suited for research because of their slow flight, station keeping and stable platform. They provide an effective platform for photo and video data acquisition, remote sensing and lowering instruments. These facilities are particularly suitable for large mammal studies in the sea, ocean atmospheric studies, plume studies and flying instrument test beds. Most platforms use for science to date have been provided by commercial companies pro bono.

Jim is interested in seeking other interested investigators that might have a scientific need for lighter than air platforms. The Council agreed to provide outreach support to the community for solicitation of interest in lighter than air platforms. It was suggested that Jim submit an article for the UNOLS Newsletter. Jim was asked to keep UNOLS abreast of his progress.

## **2 July 1998**

**RVOC Safety Video** - Steve Rabalais reported that production of the RVOC Safety Video has been completed. It will be ready for distribution over the summer.

**Ship Scheduling Process** - Don Moller provided background on the scheduling process and how it is evolving. In the past, the ship schedules consisted primarily of cruises with researchers from their own respective institution. This was a simplified scheduling process but not always the most cost effective way to do business. Now the user base has become more broad. More agencies are involved and the panel funding decisions are earlier. Communications have improved with the use of the Web. Also in the past, there was less equipment that was shared by the fleet and therefore less coordination was needed. The changing conditions have required more central coordination. Electronic ship time requests with instant distribution has been initiated. Electronic posting of these requests make them

more accessible to schedulers. Schedules are updated and electronically posted more frequently. Efficiencies in cruise tracks are scrutinized. Two annual scheduling meetings followed by two schedule review meetings have given way to one schedule review meeting in June and a general scheduling meeting followed by a review meeting in September. Some scheduling problems remain. Late changes in schedules are traumatic for the science parties. There is a perception that scientists are disconnected from the process; that schedules are driven by the agencies and not the schedulers and the process is becoming more frustrating.

Don proposes changes in the scheduling process. The June meeting should be delayed until early July and be a full ship scheduling meeting followed by a review meeting. Schedulers with local schedules that do not require coordination need not attend. The later date will allow for more information to be available concerning funding decisions. It would also provide NSF program managers with additional time for making funding announcements. Schedulers should not be required to develop full schedules or cruise tracks until most funding decisions are known. In place of a schedule the schedulers should post a list of proposed cruises in the approximate order of anticipated timing. Schedules would be developed at or immediately following the July meetings. The September ship scheduling meeting would not take place and only a schedule review meeting would held at that time.

On a related topic, the Council discussed the **interchangability of ships**. Scientists often become very frustrated in instances when they are moved from one ship to another during the scheduling process or when they do not get scheduled on the ship that they requested. There is a perception among scientists that ships are not interchangeable. It was suggested that additional training is needed for ship support groups to improve interchangability of ships. One way to help remedy this problem would be to internally swap technicians among UNOLS ships so that they can obtain a broader knowledge and experience. It was also commented that more definition of the cruise plan is needed after the project is funded. This would better enable the ship operator to technically support the cruise. The UNOLS new ship time request two-part form will actually address this exact issue. Lastly, it was recommended that the community, particularly new PIs need educating on the ship scheduling process. The NSF general proposal guidelines should reference the UNOLS webpage.

Two action items resulted from the discussions on ship scheduling procedures and interchangability of ships:

1. Don Moller was asked to prepare his proposed revision to the ship scheduling and circulate them for further comment.
2. A "white paper" should be written on "How ships are scheduled - a guide for novices." The paper would be posted on the UNOLS website.

**UNOLS Annual Meeting** - The Council made suggestions for potential keynote speakers and presentations for the Annual Meeting.

**UNOLS Town Meeting, Customer Satisfaction Survey & Long Range UNOLS Issues/Public Outreach** - Because all three agenda items addressed a similar topic they were discussed together. Ken provided a brief update on the 12 February Town Meeting the AGU/OSLO Conference in San Diego. The meeting was well advertised but not well attended. It was designed to be both informational and to allow the community to express their concerns with UNOLS. The low attendance could be construed as general satisfaction or at least a lack of strong dissatisfaction. Those that did attend took part in a friendly open discussion about the UNOLS activities. The Council encouraged continued efforts to reach the community. These should include: periodic customer satisfaction surveys (about every two to three years); advertise that the Council meetings are open and the community is encouraged to attend; a round table discussion with program managers at the Annual Meeting; the NSF inspection process should review ship assessment reports and continue a booth at the fall AGU meeting. It was recommended that UNOLS have a poster at the Fall AGU. It was further suggested that an agenda item for the next Council meeting should be post cruise assessment follow-up procedures.

Don Heinrichs reported that as part of the Academic Fleet Review, a customer satisfaction survey will be conducted. The Council agreed to postpone the development of a UNOLS survey until after the results of NSF's survey are available. Don Heinrichs invited the Council to provide suggestions for questions for the customer survey.

**Antarctic Support Association (ASA) Logistic Support** - The Council briefly discussed ASA's possible option for a U.S. oceanographic research facility to provide the functions of managing, planning, staffing and maintaining logistics support of PALMER and GOULD. No decisions or conclusions were reached.

**Small Boats Designated as RVs** - The Council briefly discussed the recent correspondence in the community about whether or not small boats fell within the Research Vessel Act and if their operators required passenger licenses. It was suggested that this issue should be passed on to George Ireland for advise.

**UNOLS Office Transfer** - Jack Bash provided the Council with a draft letter and schedule for the search for a UNOLS Office host and executive secretary replacement. The Council concurred with the letter and schedule.

**UNOLS Charter Review** - Clare Reimers led the discussion on the proposed changes to the UNOLS Charter. Changes are proposed for the basic Charter and three of the annexes. The primary thrust of the Charter changes are to allow for a more balanced representation between non-operator and operator members and to also address the issue of membership by consortia. The revised Charter would allow non-operator members an opportunity to hold chair positions on the Council and its committees. The annex changes followed this theme for the FIC annex and were general updates for the Ship Scheduling annex and National Facilities annex.

There was discussion by the Council on the issue of consortia. The proposed revised charter states that

membership shall be by individual institution or by consortium. If a consortium is a UNOLS member, no constituent institution of that consortium may be a member.

It was decided that a separate vote would be taken for the consortium member issue at the Annual meeting so that the more routine changes could still be made if this issue were defeated.

**UNOLS Council Membership** - Dennis Hansell, Chair of the nominating committee reviewed the 1998 Council nomination process, see [Appendix XIII](#). In February/March 1998 the committee was formed and includes Dennis, Clare Reimers and Peter Lonsdale. A call for nominations was announced in April/May. The announcements were sent out via the UNOLS newsletter, EOS, and letters to the UNOLS representatives and Dean/Directors of member institutions.

Dennis presented a draft slate for the Chair, Vice Chair and Council members. It was noted that there were no candidates for Council Chair and that Tom Royer was running unopposed as Vice Chair. A nomination was made to nominate Bob Knox as Chair. The final slate will be advertised at least thirty days before the Annual Meeting.

The Council recommended that the nominating process conducted this year should be the model for future years.

**CORE/UNOLS MOA** - A discussion was held on the current CORE/UNOLS MOA. As written it is very broad and probably needs to be more specific. The Council recommended that the Chair and Executive Secretary work with CORE on possible revisions and proposed that the new MOA include a provision that required the two organizations to have a working meeting at least twice a year to coordinate activities.

**SEACLIFF and ATV Retirement Plans** - Pat Dennis provided the Council with the latest information on SEACLIFF and ATV. SEACLIFF has been transferred to ONR and will soon be sent to WHOI. An engineering study is proposed to the agencies to determine how the vehicle or its parts can best be used. The decision on ATV still remains pending. Pat also informed the Council that TURTLE has been retired and will be transferred to either Mystic Museum or Hawaii.

**Ship Scheduling Improvements** - Jack Bash reported that improvements to the ship scheduling process should be up and running in a few of weeks.

**AGOR Z-drive Thruster Status** - Bob Knox informed the Council on the status of the AGOR Z-drive thrusters. Glosten has completed a study on the cause of the failures and has provided a report. Recommendations from that report are included as [Appendix XIV](#). Two gears have been purchased for KNORR. The starboard gear has been replaced but not the port. Bearings and seals were replaced on both sets of gears. ONR has funded the purchase of two new gears for MELVILLE. Both will be installed at next dry-docking. It was recommended that one spare port upper gear and one spare starboard upper gear be purchased as spares for AGOR 23-25. ONR will fund this purchase. A

complete lower unit spare exist.

**AGOR 25 Test and Trials Schedule** - Dick Pittenger reported on the test and trials schedule for ATLANTIS. The ship held its Post Shakedown Availability (PSA) in January and February of this year after completing six successful months of operations. The ship has been operating since the PSA. SCN money ran out in May. The tests and ship operations have gone very well. *Appendix XV* provides a detailed schedule.

**Applications for UNOLS Membership:** An application for UNOLS membership from the University of Minnesota, Duluth was received. The University of Minnesota, Duluth recently acquired a vessel from the Department Of Commerce buy-back program. It has been outfitted for oceanography (with some NSF money) and is presently operating in the Great Lakes. Scientists have indicated an interest in using the ship. Although U. of Minn. has applied to become a member of UNOLS they have not applied for BLUE HERRING to be a UNOLS vessel but will be a non-operating member. The Council approved the application and moved to forward it for vote at the Annual Meeting.

The Council recommended that the two membership requests from consortia, New Jersey Marine Science Consortium and Southern California Marine Institute, be provisionally advanced to the Annual Meeting for vote conditionally based on the pending charter change.

**UNOLS Brochure** - Vicky Cullen of Woods Hole has been funded to publish an updated UNOLS brochure. It should be ready in about six months.

**Miscellaneous Discussions** - It was suggested that agency reports be heard at the Annual Meeting and not given at the September Council meeting. Dick Pittenger extended an invitation for the Council to hold their next summer meeting at Woods Hole.

*The meeting was adjourned at 2:30 pm.*

# UNOLS COUNCIL MEETING

Wednesday-Thursday, July 1-2, 1998  
W. Alton Jones Campus  
Whispering Pines Conference Center - Sycamore Lodge  
University of Rhode Island  
West Greenwich, RI 02817-2158

## *Meeting Agenda*

**Call the Meeting:** Ken Johnson, UNOLS Chair, will call the meeting to order at 8:30 a.m., 1 July 1998.

**Accept Minutes of the February, 1998 Council Meeting.**

**COMMITTEE REPORTS:** Ken Johnson will provide a brief summary of the UNOLS Committee written reports and open the floor to a question/answer period. (Prior to the meeting, Committee Chairs submitted written reports for distribution to meeting participants.) Chairs will identify any important issues that need to be addressed further by the Council.

**AGENCY and OTHER REPORTS:** Reports from agency representatives on funding outlooks, facility updates, and special projects:

- **Department of State** - Tom Cocke
- **National Oceanographic and Atmospheric Administration** - CDR Elizabeth White
- **National Science Foundation** - Don Heinrichs
- **Naval Oceanographic Center** - CDR Jim Trees
- **Oceanographer of the Navy** - Pat Dennis
- **Office of Naval Research** - Pat Dennis
- **Consortium for Oceanographic Research and Education** - Capt Dan Schwartz
- **United States Coast Guard** - J. Berkson

## **UNOLS ISSUES:**

**NSF Academic Research Fleet Review** - Don Heinrichs will provide a report on the June 8-10 NSF Fleet Review Meeting and plans for the follow-on meetings in September and November.

**FOFCC Meeting Report** - Ken Johnson will provide a report on the 30 June FOFCC meeting.

**National Ocean Conference** - Ken Johnson and Jack Bash will report on the National Ocean

Conference in Monterey, CA.

**Ship Scheduling Process** - Don Moller will lead a discussion on ship scheduling process issues.

**Interchangability of Ships** - Ships in similar size classes are becoming more specialized in capabilities and training. Transfer of cruises depending on these specialized capabilities places an increasing burden on science parties. How should we respond - encourage cross training, recognize explicit specialties (biogeochemistry, moorings, MGG/Swath mapping, etc.)?

**UNOLS Annual Meeting** - The Annual Meeting has been scheduled for Thursday, 17 September. Suggestions for keynote presenter and agenda items will be discussed.

**AGOR 26 Construction Update** - Pat Dennis will provide an update on the Navy's construction of AGOR 26, SWATH research vessel.

**Airships and Aerostats** - Jim Hain (Associated Scientists at Woods Hole) will report on applications of airships (blimps) and aerostats (tethered balloons) for oceanographic research (Enclosure 1).

**Science Mission Requirements (SMR)** - Larry Atkinson will review the status of SMR development for an East Coast Research Vessel and a vessel for work in Alaskan waters.

**UNOLS Town Meetings** - Ken Johnson will report on the Town Hall Meeting held on 12 February at the AGU/OSLO meeting in San Diego. Should we hold another Town Hall meeting at the Fall AGU Conference in December, 1998?

**Antarctic Support Association (ASA) Logistic Support** - ASA is exploring the possible option for a U.S. Oceanographic research facility to provide the functions of managing, planning, staffing and maintaining logistics support of PALMER and GOULD.

**Customer Satisfaction Survey** - The last customer satisfaction survey was conducted in 1995. Is it time to re-survey the community?

**CORE/UNOLS MOA** - Discussion on whether the CORE/UNOLS MOA needs to be revisited and redefined.

**SEA CLIFF and ATV Retirement Plans** - Pat Dennis will review plans for the future of DSV SEA CLIFF and ATV following their retirement from the Navy.

**Ship Scheduling Improvements** - Jack Bash will report on the progress of the improvements to the UNOLS ship scheduling process.

**AGOR Z-drive Thruster Status** - Bob Knox and Dick Pittenger will review the latest status of any AGOR Z-drive issues.

**New Ship Construction** - Update on Skidaway's construction of R/V SAVANNAH. Update on plans for replacement of CALANUS.

**Long Range UNOLS Issues/Public Outreach** - At the last Council meeting public outreach was identified as an area needing greater attention by UNOLS. Review recent public outreach activities and discuss other methods for reaching out to the community.

**UNOLS Office Transfer** - Discussion on plans for transfer of the UNOLS Office. The current UNOLS Office grant with the University of Rhode Island will expire on 30 April, 2000.

**UNOLS Charter Review** - Clare Reimers will review the recommended revisions to the UNOLS Charter and structure as prepared by the ad hoc committee (Enclosure 2).

**UNOLS Council Membership** - Dennis Hansell, Nominating Committee Chair, will report on nominations for UNOLS Chair and Council members. The terms of Ken Johnson, Tom Royer, Dick Pittenger and Bob Wall are expiring.

#### **Applications for UNOLS Membership :**

- The University of Minnesota, Duluth has applied for UNOLS Membership. A copy of their application is included as *Enclosure 3*.
- The New Jersey Marine Sciences Consortium and the Southern California Marine Institute applied for UNOLS Membership in 1997. Discussion on the status of their applications.

**UNOLS Brochure** - Update on plans for updating the UNOLS brochure.

#### **Calendar for UNOLS Meetings:**

<b>MEETING</b>	<b>LOCATION</b>	<b>DATES</b>
FIC	TBD	Summer, 1998
NSF Fleet Review	SIO, San Diego, CA	Sept 1-3, 1998
Ship Scheduling Comm.	NSF, Arlington, VA	Sept 14, 1998
Schedule Review	NSF, Arlington, VA	Sept 15, 1998
UNOLS Council	NSF, Arlington, VA	Sept 16, 1998
UNOLS Annual	NSF, Arlington, VA	Sept 17, 1998
RVTEC	SIO, La Jolla, CA	Oct 19, 1998

INMARTECH '98

RVOC

DESSC

AICC

SIO, La Jolla, CA

U.Hawaii, Honolulu, HI

AGU, San Francisco, CA

Avondale, LA

Oct 20-22, 1998

Nov 4-6, 1998

Dec 1998

Winter 1998/99

*Adjournment*

## Appendix II

### Meeting Participants

#### Council Meeting - July 1-2, 1998

<b>NAME</b>	<b>AFFILIATION</b>	<b>PHONE/FAX/INTERNET ADDRESS</b>
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Annette DeSilva	UNOLS	(401) 874-6825/(401) 874-6167/ unols@gso.uri.edu
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Dennis Hansell	BBSR	(441) 297-1880x210/(441) 297-8143/ dennis@bbsr.edu
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Claire Reimers	Rutgers University	(908) 932-6555x236/(908) 932-8578/ reimer@ahab.rutgers.edu
Tom Royer	ODU	(757) 683-5547/(757) 683-5550/ royer@ccpo.odu.edu
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Tom Shipley	U of Texas, Austin	(512) 471-0430/ 512-475-6338/ tom@utig.ig.utexas.edu
Jim Swift	SIO	(619) 534-3387/(619) 534-7383/ jswift@ucsd.edu

CDR. Beth White    NOAA/OAR    (301) 713-2465 x184/(301) 713-0158/ elizabeth.white@noaa.gov

## Appendix III

### UNOLS Committee Reports

[RVTEC Report](#)

[FIC Report](#)

[DESSC Report](#)

[AICC Report](#)

[RVOC Report](#)

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#### Committee report from RVTEC

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

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

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

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

the scientific testing regime as well.

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

Submitted,  
John S. Freitag  
Chair, RVTEC

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### **Fleet Improvement Committee Status Report**

FIC has two SMR activities in progress at this time.

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

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

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

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

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

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

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

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

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

M. Perfit has completed his three year term as DESSC chair and Patty Fryer was nominated to replace him by the committee. In addition, three members of the committee (including Patty) are rotating off and nominations to replace them were given to M. Perfit. He is in the process of contacting them to see if they are interested.

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## **AICC Report to Council**

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

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

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

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

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

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

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

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

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

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

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

## **6. MST staffing strategy**

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

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

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

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

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

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

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

- UNOLS Reports and Committee Updates
- Agency (NSF, Navy, NOAA, etc.) Reports
- Special Reports to include presentations from operators of foreign vessels, and updates on new vessels and conversions

- A review of the charter experience on the EWING presented by Paul Ljunggren.
- One afternoon will be dedicated to seminars relevant to operators. Two topics under consideration at this time are:

**Option 1: STCW Awareness Training( ABS Seminar)**

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

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

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

- Marine Superintendents round table discussion

**RVOC Committee Reports:**

Safety - The Safety Committee met on 10 June to review a draft version of the Science Safety Video under production by Jamestown Marine Services. The film, with an Introduction by Dr. Robert Gagosian, was shot on board the R/V ENDEAVOR with special effects and graphics provided by Jamestown Marine. After minor editing corrections, as recommended by the Safety Committee, the final version will be ready for distribution on July 3. Master copies will be provided to the UNOLS office and each UNOLS Operator. UNOLS will retain the right to copy and distribute the film as they deem appropriate. The Safety Committee was very pleased with the rough draft and felt that with revisions the film will provide valuable information to the scientists using our ships.

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

A discussion of STCW regulations and their application to U.S. academic R/V's followed. New interim rulings from the US Coast Guard are not clear as to how the new IMO standards are to be applied beyond commercial vessels. This in conjunction with existing ambiguities in U.S. code governing the operation of uninspected (undocumented) research vessels moved the Committee to consider addressing this issue through more direct discussion. A letter of intent is being prepared and will be circulated through RVOC after review by the Safety Committee. This letter will announce the Committees

intentions to investigate, through independent council, if necessary the intended application of recent IMO rulings as implemented through the U. S. Code. While this investigation will focus on the new guidelines it is anticipated that the status of uninspected vessels relative to existing regulations will be addressed.

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

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## Appendix IV

### UNOLS Charge/Operating Days 1995-1999

#### Charge/ Operating Days 1995-1999

	<b>1995 Total</b>	<b>1996 Total</b>	<b>1997 Total</b>	<b>1998 Total</b>	<b>1999 Proj't</b>
A-II/ Atlantis	319	93*	185*	272*	332
Ewing	310	315	273	215*	330
Knorr	350	279	284	263	0*
Melville	297	297	308	229*	304
Revelle		80*	288	299	214*
Thompson	333	246	214	277	269
Edwin Link	175*	186	214	182	232
Endeavor	228	147	201	158*	143
Gyre	122	219	184	149	61
Moana Wave	195	144	202	169	136
New Horizon	240	174*	259	221	158
Oceanus	187	168	209	247	213
S. Johnson	271	304	284	281	225
Wecoma	145	198	199	226	223
Alpha Helix	144	73	118	172	138
Cape Hatteras	175	0	221	205	150
Cape Henlopen	198	185	206	195	185
Longhorn	72	130	46	63	45
Pelican	182	201	206	244	184
Pt. Sur	164	118*	188	193	193
Sea Diver	180	132	105*	133	48
Sproul	145	155	182	172	126
Weatherbird	154	167	151	134	120

Days	4586	4011	4733	4699	4017
Barnes	77	86	126	119	103
Bluefin	75	96	82	95	135
Calanus	48	50	111	167	111
Laurentian	91	72	44	146	215
Urraca	0	0	0	173	109
<b>GRAND TOTAL DAYS</b>	<b>4877</b>	<b>4315</b>	<b>5096</b>	<b>5399</b>	<b>4690</b>

\* Overhaul or partial service

Note: based on data available on 26 June 1998.

### Large Ship Charge Days (by Agency & Year)

	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
<b>NSF Days</b>	1371	1124	1018	920	816
<b>%</b>	85.2	85.8	65.6	59.2	56.3
<b>ONR Days</b>	84	20	88	53	114
<b>%</b>	5.2	1.5	5.7	3.4	7.9
<b>NOAA Days</b>	20	25	89	49	211
<b>%</b>	1.2	1.9	5.7	3.2	14.6
<b>NAVO Days</b>	0	0	184	213	224
<b>%</b>	0	0	11.8	13.7	15.5
<b>Other Days</b>	134	141	173	320	74
<b>%</b>	8.3	10.8	11.2	20.6	5.1
<b>TOTAL Days</b>	<b>1609</b>	<b>1310</b>	<b>1552</b>	<b>1555</b>	<b>1449</b>

### UNOLS Fleet Charge Days (by Agency & Year)

	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
<b>NSF Days</b>	3249	2738	2909	2708	2645
<b>%</b>	66.6	63.5	57.1	50.2	56.4

<b>ONR Days</b>	403	454	499	416	472
<b>%</b>	8.3	10.5	9.8	7.6	10.1
<b>NOAA Days</b>	354	145	378	619	506
<b>%</b>	7.3	3.4	7.4	11.5	10.8
<b>NAVO Days</b>	0	0	373	449	436
<b>%</b>	0	0	7.3	8.3	9.3
<b>Other Days</b>	872	978	937	1207	631
<b>%</b>	17.9	22.6	18.4	22.4	13.4
<b>TOTAL Days</b>	<b>4877</b>	<b>4315</b>	<b>5096</b>	<b>5399</b>	<b>4690</b>

## Appendix V

## NSF Viewgraphs



# NSF BUDGET REQUEST - FY 1999

(figures in millions)

	FY 1998	FY 1999	Increase	Percent
<b>Geosciences</b>				
Atmospheric Sciences*	153.82	170.22	16.40	10.7%
Earth Sciences	95.13	106.70	11.57	12.2%
Ocean Sciences	206.16	230.39	24.23	11.8%
	<b>\$455.11</b>	<b>\$507.31</b>	<b>\$52.20</b>	<b>11.5%</b>

	FY 1998	FY 1999	Increase	Percent
<b>Ocean Sciences</b>				
Ocean Sciences Research	112.16	127.50	15.35	13.7%
Support				
Oceanographic Centers & Facilities	52.26	56.96	4.70	9.0%
Ocean Drilling Program	41.75	45.93	4.18	10.0%
	<b>\$206.16</b>	<b>\$230.39</b>	<b>\$24.23</b>	<b>11.8%</b>

\*MRE account includes \$21.0M for Polar Cap Observatory



# NSF BUDGET REQUEST - FY 1999

(figures in millions)

	FY 1998	FY 1999	Increase	Percent
<b>Research and Related Activities</b>				
Biological Sciences*	370.82	416.52	45.70	12.3%
Computation and Information Sciences	307.17	329.64	22.47	7.3%
Engineering	357.97	400.55	42.58	11.9%
Geosciences	455.11	507.31	52.20	11.5%
Math & Physical Sciences	715.71	792.03	76.32	10.7%
Social & Behavioral Sciences	130.66	150.26	19.60	15.0%
Polar Sciences	228.53	244.96	16.43	7.2%
Critical Tech. Institute	2.73	2.73	0.00	0.0%
	<b>\$2,568.70</b>	<b>\$2,844.00</b>	<b>\$275.30</b>	<b>10.7%</b>
<b>Education &amp; Human Resources</b>	<b>\$632.50</b>	<b>\$683.00</b>	<b>\$50.50</b>	<b>8.0%</b>
<b>Major Research Equipment**</b>	<b>\$109.00</b>	<b>\$94.00</b>	<b>(\$15.00)</b>	<b>-13.8%</b>
<b>Administration/Operations</b>	<b>\$141.80</b>	<b>\$152.00</b>	<b>\$10.20</b>	<b>7.2%</b>
<b>NSF Total</b>	<b>\$3,452.00</b>	<b>\$3,773.00</b>	<b>\$321.00</b>	<b>9.3%</b>

\*BIO includes \$40.0M for Plant Genome Research

\*\*MRE includes \$31.0M for MPS projects, \$42.0M for Polar Sciences projects, and \$21.0M for GEO projects

# **Appendix VI**

## **CORE Viewgraphs**

The CORE Viewgraphs may be requested from the UNOLS Office ([office@unols.org](mailto:office@unols.org)).

## **Appendix VII**

### **USCG Report**

#### **COAST GUARD AGENCY REPORT UNOLS COUNCIL MEETING JULY 1-2, 1998**

##### **1. USCGC HEALY UPDATE**

**DELIVERY:** Feb 99 is still the official delivery date from Avondale Shipyards. Unofficially, some in the Coast Guard doubt that Avondale can make the February 1999 delivery date, which is crucial to the summer '99 ice trials schedule. The Coast Guard expects to be able to provide a more firm projection by the August Ice Trials Meeting. Ice trials planning has been progressing extremely well. John Freitag (UNOLS RVTEC Chair) and Terry Tucker (CRREL) have been designing much of the science and ice trials protocols and have been doing a superlative job.

**CORING UPGRADE:** Funding has been secured by the Coast Guard Icebreaking Program to proceed with the development of the 30-meter coring system on HEALY. Woods Hole (Mr. Jim Broda) has been negotiating with the HEALY Project staff on the design, which has been submitted to the Arctic Icebreaker Coordinating Committee for review and approval.

**RESEARCH FUNDING:** There is some concern within the Coast Guard over the apparent lack of a coordinated science plan for HEALY once the ship becomes operational. Of equal concern is what seems to be the consensus among potential users that there will be no additional funds budgeted to support researchers on the ship. The Coast Guard's impression is that there is a "Field of Dreams" approach ("build it and they will come"). While this may be true, top managers feel that there should be a fully articulated plan supporting a proposal for dedicated funds to put the government's investment to full use.

##### **2. POLAR ICEBREAKER UPDATE**

**POLAR SEA** deployed on 29 April for a three-month Arctic West Summer cruise. In May she participated as the command and control platform for the largest U.S./Russian/Japanese oil spill exercise to date off of Sakhalin Island. After picking up a 15-member science party in Nome she proceeded to the Arctic for 20 days of multi-discipline science operations. She will complete her assignments by assisting the Canadian Coast Guard with a crew change at the SHEBA site after the ice runway alongside the CCGS DEGROSEILLIERS becomes unsuitable for fixed wing aircraft caused by deterioration due to warm temperatures. **POLAR SEA** will deploy on Operation DEEP FREEZE in November.

POLAR STAR will be departing for an Arctic trip in late July. She too will provide transport for SHEBA scientists and crew in early August and again in early September. In between she will be conducting a science of opportunity cruise.

### **3. OMB ICEBREAKER REIMBURSEMENT PROPOSAL**

As part of the OMB budget passback, the CG was instructed to seek full reimbursement for operating and capitol costs of the icebreakers from non-DOD users. This would require legislative changes to be submitted in the CG Omnibus Act of 1998, which contains a number of legislative proposals. The proposed Omnibus Act is currently held up in DOT for a variety of reasons. Once the bill clears DOT, OMB will put it into interagency clearance.

The Icebreaking Program's response to this OMB mandate was to point out that the government maintains a fleet of icebreakers for a variety of reasons including: (1) the need to regularly project U.S. presence in the Polar regions in general; (2) search and rescue (the GREENWAVE casualty stands as an excellent example); (3) marine environmental protection in the high latitudes, particularly with the ever increasing focus on Arctic oil reserves; (4) DOS-led Antarctic Treaty inspections; (5) support of research; and (5) for any future national contingency. For these reasons, the Coast Guard has gone on record as recommending that the incremental reimbursement system presently in place be continued as the most equitable one. It has also been pointed out that a substantial increase in rates by the Coast Guard would make these ships uncompetitive with other oceanographic platforms and would result in a net decrease in recoument of operating costs.

## Appendix VIII

### NSF Review Terms of Reference

#### Terms of Reference

1) Review and evaluate the current and projected research vessel fleet required for research sponsored by the National Science Foundation within a national framework that includes research requirements of other federal agencies, state and local governments, and private sources.

This review should be done in the context of environmental and geoscience research, in general, and the specific contributions the Academic Research Fleet provides to the research enterprise as a whole.

Specific issues include:

- Do the capabilities and operating modes of the academic ships meet research requirements?
- Is the number of ships overall, and distribution within size categories, consistent with the level of research support and type of seagoing research projects expected in the future?
- Are specialized capabilities required to meet research priorities adequately included in the overall fleet profile?

#### Terms of Reference

2) Review and evaluate overall management structure of the Academic Research Fleet; review and evaluate existing capabilities and services provided by the operating organizations; and review and evaluate possible future changes in academic fleet operations to ensure optimal operations of the academic fleet to support research requirements.

The review context should include consideration of the distributed ownership of the fleet, cost sharing for both capital acquisition and operations and requirements of multiple research sponsors who participate in scientific, operational and financial support.

Specific issues include:

- Are organizational arrangements and structures appropriate?
- Can the Academic Research Fleet system be managed in a more cost-effective manner?
- Should elements of the research fleet or its operation be recompeted?

#### Terms of Reference

3) Provide recommended actions by NSF to improve the organization, management, and cost effective operation of the Academic Research Fleet in support of scientific capabilities required to maintain world leadership in ocean and environmental science research.

The recommendations should be formulated in the context of the results of the review and evaluations of the first two terms of reference. Key elements include providing a perspective on Academic Research Fleet operations within a national context, relevance and quality of scientific, educational, and technical support; and benefits and added value of any recommended actions for peer reviewed competition or recompetition of research fleet components.

### **Academic Fleet Review - Upcoming Areas to be Addressed**

#### **CUSTOMER SATISFACTION/NEEDS**

- Develop questionnaire for committee to address research scientist needs, support, capabilities, improvements to system, etc.
- Community input directly to Committee for candor.
- Involve NSF Science Resource Studies re questionnaire design.

**ACTION:** NSF to do first draft and circulate to Committee for comments before sending.

**TIMING:** ASAP to receive responses before next meeting in September.

#### **SHIP OPERATIONS**

Fleet history of operating institutions, ship changes, numbers, size to get context for operations capabilities and days. Couple with history of days used vs days available to assist with analysis of fleet size/use issues.

**ACTION:** UNOLS to provide via NSF.

- Science capabilities of fleet and their evolution. This includes a science systems "compilation" of available instrumentation broken out ship classes - not just a list but capability oriented.
- "Productivity measures" and investigator days/berths analysis with goal to better define evolution of science capabilities, investigator productivity, etc with changes/new ships in fleet.

**ACTION:** UNOLS to provide via NSF.

**TIMING:** Intersessional - for both items. Provide when compiled but with target date of mid-July.

#### **COMPARATIVE OPERATIONS**

- Antarctic program systems contractor practices for science support services. Presentation at next committee meeting - 1 hour max.- with goal to better understand possible alternative approaches.
- Scheduling, operations, support mechanisms for science projects used by both other US systems, e.g. NOAA and Navy, and other countries with goal as above to better understand alternative possibilities.

**ACTION:** NSF to arrange with NSF/OPP for Antarctic input and organize data and presentation re second items.

**TIMING:** Second meeting agenda.

## **NSF PROPOSAL TRENDS**

- Overall budget trends and support from the Ocean Sciences. Division for research programs and facilities programs including ship use as a program percentage. Include data on total proposals submitted for ship use and related ship size distributions and comparative success rates for seagoing projects vs laboratory, analysis, theoretical studies with goal of understanding factors in declining number of days at sea sponsored by NSF.

**ACTION:** NSF to organize and present.

**TIMING:** Second meeting agenda.

## **FINANCIAL ANALYSES**

- Provide operations and support data using standard accounting practice with identification of fixed cost vs variable cost parameters. Include in analyses both operations and layups, including for NSF explanation of practice and policy re layups.
- Provide data/analysis of comparative operations costs for UNOLS, NSF longterm charters in OPP, other federal operations, commercial operations and other country operations. Use standard accounting practice.

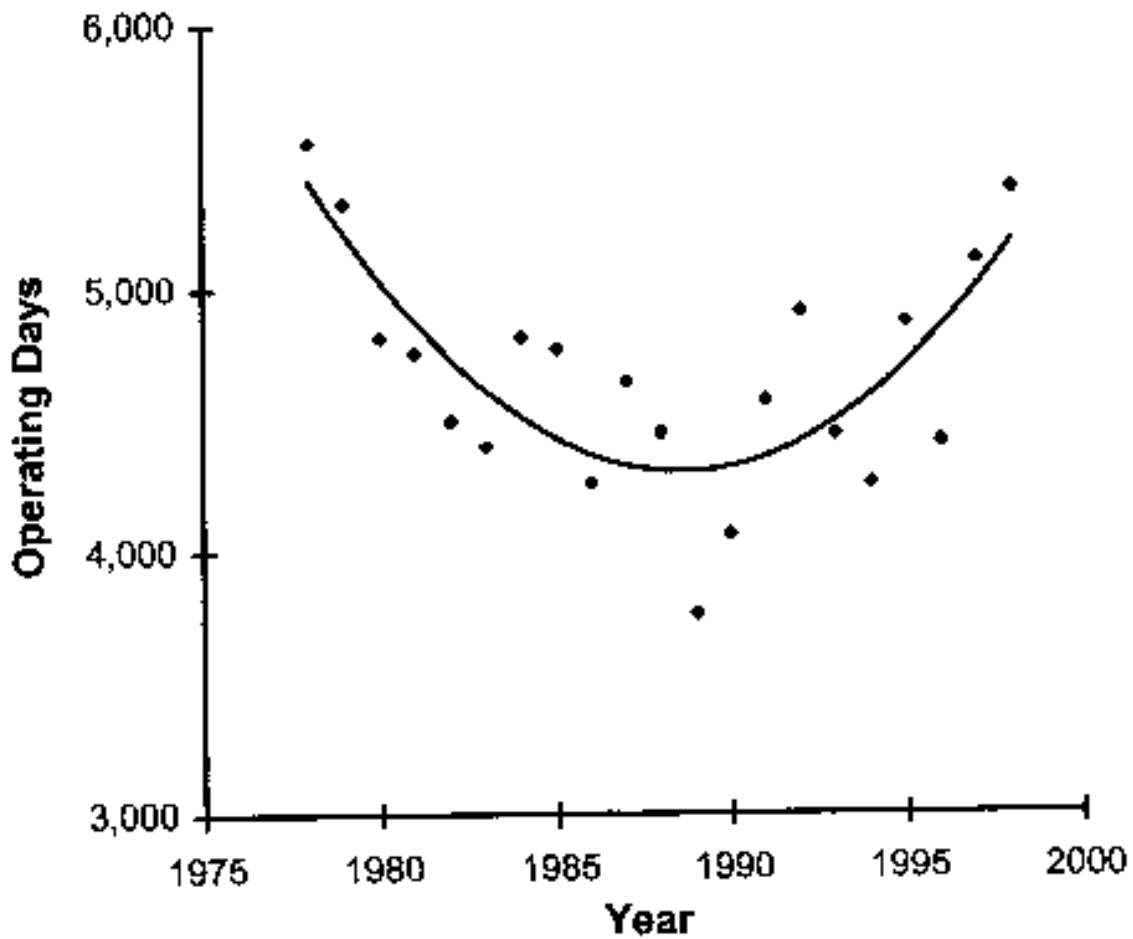
**ACTION:** NSF to obtain independent external "financial/audit" consultant to review/obtain required data and provide analysis.

**TIMING:** Progress report at second meeting. Committee input to study at that time prior to final report at third meeting.

## Appendix IX

### UNOLS Viewgraphs for FOFCC

**Total UNOLS Operating Days, Last 20 Years**



**UNOLS SHIP OPERATION DAYS: 1998**

<b>SHIP/CLASS</b>	<b>Days Operating</b>	<b>Days Available</b>	<b>Percent Utilization</b>
<b>GLOBAL/EXPEDITIONARY SHIPS</b>			
ATLANTIS	272	275	
R. REVELLE	299	275	
MELVILLE	229	275	
KNORR	263	275	
EWING	215	275	
T.G. THOMPSON	277	275	
<b>TOTAL</b>	<b>1555</b>	<b>1650</b>	<b>94%</b>
<b>INTERMEDIATE/REGIONAL SHIPS</b>			
MOANA WAVE	169	275	
EDWIN LINK	174	250	
ENDEAVOR	158	250	
OCEANUS	233	250	
GYRE	131	250	
NEW HORIZON	221	250	
SEWARD JOHNSON	281	250	
WECOMA	226	250	
<b>TOTAL</b>	<b>1593</b>	<b>2025</b>	<b>79%</b>
POINT SUR	193	180	
CAPE HATTERAS	205	180	
ALPHA HELIX	172	180	
R. SPROUL	169	180	
<b>TOTAL</b>	<b>739</b>	<b>720</b>	<b>103%</b>
<b>LOCAL/NEAR-SHORE SHIPS</b>			
PELICAN	244	180	
LONGHORN	58	180	
CAPE HENLOPEN	202	180	
WEATHERBIRD II	134	180	
SEA DIVER	149	180	
<b>TOTAL</b>	<b>787</b>	<b>900</b>	<b>87%</b>
BLUE FIN	95	110	
LAURENTIAN	146	110	
BARNES	119	110	
CALANUS	167	110	
URRACA	173	110	
<b>TOTAL</b>	<b>700</b>	<b>550</b>	<b>127%</b>

<b>TOTAL</b>	<b>700</b>	<b>580</b>	<b>127%</b>
<b>FLEET TOTALS</b>	<b>5374</b>	<b>5845</b>	<b>92%</b>

## UNOLS PROJECTED 1998 OPERATIONS SUPPORT

<b>AGENCY</b>	<b>\$M</b>	<b>%</b>
<b>NSF</b>	<b>28,526</b>	<b>53</b>
<b>NAVO</b>	<b>5,337</b>	<b>10</b>
<b>ONR/NRL</b>	<b>3,170</b>	<b>6</b>
<b>NAVY LABS</b>	<b>1,153</b>	<b>2</b>
<b>NAVY POSTGRAD</b>	<b>113</b>	<b>0</b>
<b>NOAA</b>	<b>5,407</b>	<b>10</b>
<b>INST/STATE</b>	<b>4,554</b>	<b>8</b>
<b>INDUSTRY</b>	<b>2,549</b>	<b>5</b>
<b>INTERNATIONAL</b>	<b>517</b>	<b>1</b>
<b>MMS</b>	<b>472</b>	<b>1</b>
<b>USGS</b>	<b>222</b>	<b>0</b>
<b>DOE</b>	<b>---</b>	
<b>ARPA</b>	<b>---</b>	
<b>ALL OTHERS</b>	<b>1,650</b>	<b>3</b>
<b>Total</b>	<b>53,690</b>	



A hard copy of this appendix may be requested from the UNOLS office ([office@unols.org](mailto:office@unols.org)).

## **Appendix XIII**

### **UNOLS Council Nominations**

#### **UNOLS COUNCIL NOMINATIONS 1998**

##### **Nominating Committee**

Dennis Hansell (Chair), Clare Reimers, Peter Lonsdale

##### **Time Frame**

- 1) February/March 1998 - Nomination Committee formed
- 2) April/May 1998 - Announcements published
- 3) July 1998 - Draft Election Slate presented to Council
- 4) July/August 1998 - Election Slate finalized
- 5) September 1998 - Council Elections

##### **Announcements Requesting Nominations**

- 1) UNOLS Newsletter
- 2) Advertisement in EOS
- 3) Letters to the Institutional Representatives to UNOLS
- 4) Letters to Dean/Directors of UNOLS institutes.

## UNOLS COUNCIL NOMINEES 1998

<u>Name</u>	<u>Discipline</u>	<u>Institute</u>
<del>Austin, James</del>	<del>Geophysics</del>	<del>UT Austin</del>
Bauer, Jim	Biogeochemist	VIMS
Bryant, Bill	Geology	TAMU
Cowles, Tim	Biologist	OSU
<del>Cutter, Greg</del>	<del>Chemist</del>	<del>ODU</del>
Firing, Eric	Physics	UII
Fornari, Dan	MG&G/DeepSubmerg.	WHOI
<del>Goss, John</del>	<del>Geophysics</del>	<del>UT Austin</del>
Lee, Tom	Physics	RSMAS
<del>Moran, Brad</del>	<del>Chemist</del>	<del>URI</del>
Royer, Tom	Physics	ODU
Youngblouth, Marsh	Biologist	HBOT

\*Strikeout indicates nominations not forwarded to the final election slate.



## Appendix XIV

### Z Drives Glosten Report Recommendations

#### Z Drives Glosten Report Recommendations, 1998, and Current Status

*1. The original RIV Knorr lower starboard gear was replaced at the May 1998 drydocking. This was important to do because the original gear was a high risk gear. WHOI had purchased two new lower gear sets for Knorr in advance of this drydocking, and checked the contact area of the installed port side 1997 replacement lower gear. At this time it was determined that in accordance with the "moderate risk" definition, the cost/risk assessment determined that the 1997 replacement gear (port side) should not be replaced. Both units had bearing/seal replacements.*

Status:

- Two gears purchased.
- Starboard gear replaced, but not port gear, by ONR direction.
- Bearings and seals replaced on both sides.
- Remaining new gear held as spare.
- New gears are of Klingelberg manufacture (firm with best tooth contact/hardening performance to date on earlier gears), but were on hand/rapidly available, thus meet 0.094 in. case depth, not the more stringent 0.104 in. specification.
- The new gear bought but not installed should serve as a competent, if not optimal, fleet spare provided good tooth contact is maintained.

*2. Replace the original R/V Melville lower port gear at the next drydocking. The contact area of the 1993 replacement gear should be checked at this time, and a cost/risk assessment made as to replacement of this starboard gear.*

Status:

- ONR funded purchase of two new gears; both to be replaced at next drydocking.
- ABS is reviewing gear specs./certification process via a Corrective Action Team (CAT), which may lead to changes.
- Purchase of gears being held until CAT is settled, due August 15, 1998.
- ONR has asked Lips to meet/discuss the issue after CAT analysis is received.

*3. Obtain one spare lower gear set for Melville/Knorr class, held in reserve in case of a failure. This gear will serve as a spare for all 4 thrusters.*

Status:

- WHOI gear purchased but not installed should serve for now
- But see discussion in #1 above; there may be cause for additional changes in Knorr after CAT results, ONR/Lips meeting, etc.

*4. Obtain one spare port upper gear and one spare starboard upper gear for AGOR 23-5.*

Status:

- Funded by ONR.
- Complete lower unit spares exist, so spares complement will cover all 4 possibilities (port upper, port lower, starboard upper, starboard lower) when these are purchased/on hand.
- This purchase also on hold pending CAT results.