

UNIVERSITY - NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

UNOLS Council Meeting
September 20, 1990
Conference Room
American Institute of Architects
1735 New York Avenue NW
Washington, D.C.

UNOLS Council members, representatives from ONR, OON, NOAA, NSF, Department of State and several UNOLS institutions met at the American Institute of Architects in Washington, D.C. on September 20, 1990. The meeting was called by George Keller, Chair, at 8:30 a.m. Items on the Agenda (Appendix I) were called in the order reported herein.

ATTENDEES:

UNOLS COUNCIL

George Keller, UNOLS Chair
Tom Johnson, UNOLS Vice Chair
Peter Betzer
Gary Brass
Jeff Fox
Donn Gorsline
Tom Malone
Art Maxwell
Mike Rawson
Jim Williams

OBSERVERS, PARTICIPANTS

Keith Kaulum, ONR
June Keller, ONR
Steve Ramberg, ONR
Dolly Dieter, NSF
Larry Clark, NSF
Don Heinrichs, NSF
Mike Reeve, NSF
Tom Cocke, DOS
Pat Dennis, OON
Judith Gray, NOAA
Jack Bash, URI
Wady Owen, U. Delaware
Carolyn Thoroughgood, U. Delaware
Ron Hutchinson, U. Miami
George Shor, Scripps, UCSD
Don Newman, USC
Bill Barbee, UNOLS
Barbara Funke, UNOLS





Minutes from the July, 1990 meeting were not available for review.

SHIP SCHEDULING COMMITTEE: Mike Rawson, Chair; George Shor, Vice Chair and Bill Barbee, Executive Secretary, UNOLS, reported on the September 19 Ship Scheduling and Schedule Review meetings.

Mike Rawson reported that few of the science funding decisions arising from NSF's August panels were yet available. (In most cases, P.I.'s had not been notified whether or not their proposals had been successful; thus, science program managers could not provide definitive information to schedulers. NSF did, however, provide information on their overall program priorities for 1991 operations, thus allowing strong inferences on most pending projects.)

Based on a summary of institution estimates (prior to the September 19 Ship Scheduling meeting), fleet operating costs for 1991 were \$50.8 million:

	NSF		ONR		OTHER		TOTAL	
	Days	\$*	Days	\$*	Days	\$*	Days	\$*
Estimates	4,063	38.7	780	7.05	763	5.09	5,606	50.84
Anticipated		26-28		7.1		5.1		38-40
Shortfall		10-12		-		-		10-12

*\$Million

The Ship Scheduling Committee recommended for 1991, Ken Palfrey, OSU, SSC Chair, and Ron Hutchinson, U. Miami, Vice Chair.

At the Schedule Review meeting (September 19), recommendations were reached that would reduce estimated fleet operations costs to:

	NSF		ONR		OTHER		TOTAL	
	Days	\$*	Days	\$*	Days	\$*	Days	\$*
Recom- mended	2,927	28.5	769	7.9	763	5.09	4,459	41.5

*\$Million

These recommended reductions, almost entirely within the NSF portion, were reached by eliminating from scheduling projects not likely to be funded, by eliminating schedules in support of programs to be deferred until 1992 (e.g., JGOFS Pacific experiment) and by swapping projects among ships to reduce transits and to enhance overall operational efficiency.

Significant problems identified with fleet schedules were:

1. Uncertainties in delivery dates for the KNORR and MELVILLE jeopardized NSF requirements for WOCE operations and ONR

requirements for the ML-ML project. Announced delivery dates would allow commitments to be met, but uncertainties made it prudent to develop contingencies.

2. Schedules for the three ships then scheduled for work in the western Pacific had to be examined to see if one or even two of these ships could not be deployed there.
3. Schedules for large and intermediate ships needed review and rearrangement to eliminate some long transits.
4. JGOFS field operations in the Pacific were deferred until 1992, thereby necessitating an alternative schedule for the THOMPSON.
5. Schedules for the four Class IV ships in the mid-Atlantic needed review to improve efficiency and support work with three or fewer ships.
6. Schedules for intermediate ships operating in the Pacific needed review to reduce overall transit time and enhance efficiency.

Tentative recommendations to individual ship operators and addressing those six problem areas were reported by Bill Barbee. The individual recommendations were endorsed by the UNOLS Council and Chair. (The Chair's letters with scheduling recommendations were mailed on September 28, 1990).

Don Heinrichs said that NSF was satisfied with the level of ship operations funding reached in Schedule Review recommendations (about \$26-28 million). He noted that UNOLS institutions had done well during 1990 in providing input for ship scheduling. Unfortunately, NSF was not able to provide science funding information in time; earlier NSF target dates and deadlines should improve this situation in 1991 and beyond. NSF's position is that Schedule Review meetings are essential to a satisfactory UNOLS scheduling process. Dolly Dieter noted that satisfactory scheduling was also highly dependent on the efforts of the Ship Scheduling Chair and Vice Chair. At her suggestion, the Council commended Mike Rawson and George Shor for their efforts as Chair and Vice Chair, Ship Scheduling Committee.

Keith Kaulum noted that ONR would, in 1991, fund extraordinary amounts of ENDEAVOR/OCEANUS time. The ML-ML project, in particular, would challenge intermediate ship capabilities.

ONR could be cut by 10-15% in consequence of Operation Desert Shield. Cuts of 15% or more could result in vertical cuts that would cancel entire programs.

The Council discussed with NSF and ONR representatives potential consequences (and contingencies) of further delays in delivery of the MELVILLE and KNORR. Essential WOCE work for NSF and ML-ML

for ONR would then be in jeopardy. NSF had hard commitments to a level of WOCE observations, and would insist on contingencies to achieve that level of WOCE work. ONR likewise is committed to a 1991 ML-ML field program.

RESEARCH VESSEL OPERATORS COMMITTEE: Jim Williams, Chair, reviewed RVOC's 1990 activities.

The RVOC Safety and Training Manual was to be finished in late 1990. The RVOC Safety Committee, Bill Coste, Chair, Ken Palfrey, Jack Bash, Mike Prince and Joe Coburn, had, by contract, produced an excellent manual, highly useful to individual operators and scientists, and a manifestation of RVOC commitment to safety in marine operations.

Effects on UNOLS ships of the Zero Tolerance Program were less in 1990 than earlier. This was in part because U.S. Customs had modified their program and also as a result of understanding gained at the 1989 RVOC meeting.

Apparently, Customs policy would currently call for a citation (and perhaps a fine) for discovery of small quantities of drugs in an individual's possession; there would be no constructive seizure.

Most UNOLS operators had devised or implemented their mandatory drug testing programs. Implementation at multi-ship operators had gone relatively smoothly. There have been relatively few positive test results.

The October, 1990 RVOC meeting, in New Orleans, was to emphasize shipboard technology, chartering policy, safety, small boat operations and smoking onboard ships. Smoking aboard UNOLS ships, especially in public spaces, was becoming a significant issue.

The UNOLS Chair's letter on alcohol aboard research vessels had had good effect. No incidents had been reported through RVOC since distribution of the letter.

Several meetings had been held over the past two years concerning safety in scientific diving operations, particularly in diving from aboard UNOLS research vessels. The meetings, generally under the auspices of the American Academy of Underwater Sciences sought to establish appropriate procedures for shipboard scientific diving (much of which is based on UNOLS ships) along with clear lines of authority. A new Chapter 15 in UNOLS Research Vessel Safety Standards had been circulated through the RVOC membership. With endorsement from RVOC, the new Chapter 15 was to be presented for adoption at the next UNOLS Council meeting.

Donn Gorsline, Fleet Improvement Committee Chair, reported that their next meeting was scheduled for October 4, 5, 1990, in Woods Hole.

The UNOLS Fleet Improvement Plan (FIP) had been completed and distributed. (The Plan had been published directly by the FIC; subsequent FIC publications were to be published through the UNOLS Office.)

A subcommittee under Roger Cook had been developing Science Mission Requirements for a submersible support ship. (The ATLANTIS II is the oldest large ship in the UNOLS fleet; maintenance and operation are becoming expensive.) The subcommittee had submitted a draft to the FIC. Early review had suggested that the draft should be revised to reflect a broader perspective onto the future ship mission and to recast the report in a format more consistent with UNOLS Science Mission Requirements for other ship types or classes.

Work has continued on a Compendium of Small Ships used as research vessels. Publication of the Compendium has been deferred to 1991.

A subcommittee under Tom Royer, FIC member, is overseeing development of a conceptual design for a research vessel with ice-capability for use in the western Arctic. The concept is being developed by Glostin Associates by contract from the University of Alaska under an NSF/OCE grant. Travel for the subcommittee is through the UNOLS Office. This ship would be a candidate for the Arctic R/V called in NSF/OCE's long-range plan, the UNOLS FIP, and addresses Science Mission Requirements developed by the FIC. The conceptual design should be completed early in 1991.

The FIC provided liaison on ship-related issues between UNOLS and several elements of the Federal ocean community.

Bob Dinsmore and Tom Royer, FIC, are members of the Advisory Committee for NSF/DPP's Antarctic research vessel with ice-breaking capability (RVIB) NATHANIEL B. PALMER. Contracts have been let for construction of the PALMER and operation through a 10-year charter to Edison Chouest Offshore. Appendix II provides details. The Advisory Committee participated in developing specifications for the ship (patterned after UNOLS Science Mission Requirements), have reviewed plans and have made recommendations, many of which have been included in construction plans. NSF reported that good progress is being made on the PALMER.

Bob Dinsmore is on a NOAA Fleet Review Committee.

ONR had asked UNOLS to review and provide comments on the draft Circular of Requirements for AGOR 24/25. The FIC had formed a working group chaired by Brian Lewis, UW, to provide the review. The working group was to complete the review and provide to ONR a report which would also incorporate recommendations and comments from the University of Washington marine operations staff (selected operators for AGOR-23). The UNOLS Council agreed that

opportunity to correct any design deficiencies found in construction of AGOR-23 was important. An AGOR-24 (and perhaps AGOR-25) would be critical to academic oceanography for many years, and every effort should be made so that they can be the best vessels attainable. ONR was urged to carefully consider the review and recommendations when they are delivered.

The FIC had been following progress on acquisition and renovation of large ships for the UNOLS fleet. Construction on the THOMAS G. THOMPSON was proceeding satisfactorily. The MAURICE EWING had begun operations approximately as had been projected. Problems with renovation of the KNORR and MELVILLE had not been resolved. It was noted from the time that bids had been received for KNORR/MELVILLE contracts, available funds had limited the work that could be contracted, and there was little contingency funded. The VICKERS continued in conversion, using private funding. USC anticipated ship operations funding in 1991.

Donn Gorsline noted that because of potential changes among Federal research sponsors, new ship acquisitions, changing agency missions and modified ship requirements, the 1989 UNOLS Fleet Improvement Plan is already nearly obsolete.

Marcus Langseth had been recommended and had been appointed by George Keller, UNOLS Chair, as Fleet Improvement Committee Chair, beginning in 1991. The UNOLS Chair had appointed new members Peter Betzer, University of South Florida; Teresa Chereskin, Scripps; Charles Miller, Oregon State University and L. Donaldson Wright, Virginia Institute of Marine Science, to the Committee.

The Council joined with the UNOLS Chair in praising the Fleet Improvement Committee for their hard work and impressive accomplishments and commended retiring Committee members Worth Nowlin, Chair and Co-Chair, Donn Gorsline, Co-Chair and James Murray and Bruce Robison, Members, for their efforts on behalf of UNOLS, the FIC and the ocean community.

FLEET MANAGEMENT

The UNOLS Chair had, at the July UNOLS Council meeting, charged a subcommittee of Tom Johnson, Chair, Peter Betzer and Mike Rawson to examine a set of UNOLS fleet management issues highlighted in the Epilogue, UNOLS Fleet Improvement Plan (Appendix III). The subcommittee presented an interim report (Appendix IV) which provided preliminary assessment of: rationale and criteria for designation of UNOLS vessels and admission to the UNOLS fleet; need for a more rational definition of full working year (and the related question of classes of UNOLS vessels); and, the need for extensive planning to address the mission requirements and recommended composition of the small-vessel segment of the UNOLS fleet.

Council discussion was that the thrust of existing criteria -- toward an information certification that would help assure

federally-funded users that a research vessel designated by UNOLS was capable of safely supporting oceanographic research -- was appropriate. The concept of two classes of UNOLS designation, one connoting full, committed support, the other suggesting a lesser level of commitment was discussed, but was not endorsed.

The merit was discussed of establishing additional criteria designed to limit UNOLS fleet size to generally reflect projected research vessel needs. Although the council recognized the benefits of so limiting fleet size, they also recognized liabilities. They generally favored a system of marketplace control. I.e., designation as a UNOLS vessel puts it on a "qualified supplier list"; building a schedule and achieving funding is competitive.

Agency representatives reminded the Council that availability of ship operating funds control the level of research vessel operations. Full operation of the UNOLS fleet projected for 1992 (using current definitions for full working year and accounting for new ships being acquired for the fleet) are estimated at \$52 million. That level is not likely. Furthermore, agencies are generally unwilling to support ships and marine operations that are excess to current and projected needs.

Other means were discussed for controlling the overall budget through increased efficiency in fleet vessel operations. (E.g., carefully design consortia for ship operations to include pooling personnel, sharing shore facilities, consortia-formulated schedules and use.) The Council deferred firm recommendations, but asked the subcommittee under Tom Johnson to refine their report and present it at the next Council meeting.

Tom Malone presented to the Council his interim report on Mid-Atlantic Ship Operations (Appendix V). The working group, Tom Malone, Chair; Don Boesch, CEES, University of Maryland; Tom Johnson, Duke/UNC; Tony Knap, Bermuda Biological Research Station; and Wady Owen and Carolyn Thoroughgood, University of Delaware, had addressed issues concerning small ships in the mid-Atlantic (i.e., CAPE HATTERAS, CAPE HENLOPEN, WARFIELD, WEATHERBIRD II).

The report first addressed the problem of efficient 1991 operations for the four ships. They recommended a model wherein the WARFIELD would not work in 1991 and funded work would be scheduled among the remaining three ships. This was the model that had been presented and reviewed in Ship Scheduling meetings on September 19. This recommendation (with details in Appendix V and in September 19 Ship Scheduling Committee report) had already been endorsed by the Council.

The report continued with a preliminary analysis of, and tentative recommendations for, short-term (the 1990's) and long-term (2000-2030) fleet management: In the short term, the report asserted that traditional use by NSF, ONR and others, together

with new-initiative requirements from NOAA, EPA, USGS, DOE and states would provide sufficient demand to justify keeping all four ships.

In the long term, existing vessel facilities would not be adequate to support the combined needs of the several agencies and states. A model was sketched wherein the various potential funding entities were encouraged to collaborate in defining, acquiring and committing to the funding of a mix of research vessels appropriate to a comprehensive coastal zone research effort. Consortia should be formed among UNOLS institutions to jointly operate shore facilities and ships. A mix of ship sizes would be needed, each with appropriate mode of operation and funding.

The Council accepted the Malone report, noting that short- and long-term recommendations were pertinent not just to the mid-Atlantic, but to the entire coastal zone.

A number of follow-on activities:

- Carolyn Thoroughgood and Don Boesch are co-chairing an effort to form a consortia that could encompass all from the Carolinas to Long Island Sound.
- Efforts should begin immediately to foster coordination among NOAA, USGS, EPA, MMS, DOE and agency participation in such a plan. Perhaps the most critical element of such a plan is to secure from those agencies and states commitments to share in the acquisition and continuing operational support of appropriate ships and facilities to support academic research in the coastal zone.
- The Council charged the FIC to define coastal zone research vessel requirements. They charged Peter Betzer, Tom Malone and Donn Gorsline with initiating interaction with NOAA, EPA, USGS, MMS and DOE, to introduce the concept of their agency support to an academically-based research fleet in support of coastal zone oceanographic research.

EXPORT CONTROLS FOR HIGH RESOLUTION BATHYMETRY SYSTEMS

The issues of export licenses under the International Traffic in Arms Regulations (ITAR) and whether or not multi-beam mapping systems such as SEA BEAM were on the munitions list had been before UNOLS for about a year. Correspondence between the Department of State and the UNOLS Chair (Appendix VI) provides a resolution to the issues which is satisfactory to UNOLS. Generally, the resolution is that SEA BEAM is included on the munitions list and licenses for its temporary export must be sought from the Office of Defense Trade Controls, Department of State. (The two UNOLS institutions with SEA BEAM-equipped ships, Scripps and Woods Hole Oceanographic Institution, have been informed of this licensing requirement.) Conditions in the regulations which would be onerous to academic institutions and which would unduly

constrain oceanographic research (e.g., registration as munitions exporters, proscription of participation by foreign nationals) have been suspended.

The Council agreed that license should be sought by individual institutions, not UNOLS, and urged Scripps and WHOI to apply in timely fashion.

George Keller commended George Shor, Scripps, together with William Erb and Tom Cocke, DOS, for their help in resolving this issue.

SHIP CONSTRUCTION AND RENOVATION

Keith Kaulum, ONR, reported on Navy-supported ship construction and renovation.

Many problems remained unresolved in the KNORR-MELVILLE renovation project. Although the shipyard had recently overhauled contract supervision and replaced some subcontractors, there was, as yet, no solid evidence that the rate of progress had been improved. Two efforts had been completed to assess contract progress, one by a WHOI-contracted firm and one by Glostien Associates. At ONR, Admiral Miller, Chief of Naval Research, was giving the project his personal attention. His decision on how to proceed was expected by 30 September. Estimates were that it could take as much as \$5 million additional to complete both ships, in addition to yard claims of up to \$5.7 million. The KNORR was an estimated 80% completed, the MELVILLE 35-40%. MELVILLE was not yet rejoined; some installations were beginning. Some lessons had been learned from the KNORR, and progress should be better.

ONR was very concerned over delays in this project, especially since the scheduling process for 1991 had strongly reiterated the need for the improved KNORR and MELVILLE.

Construction of the THOMPSON, by contrast, was proceeding very well. Delivery was scheduled for about July, 1991, as projected when construction began early in 1989. Although there had been frustrations along the way, the University of Washington operators had worked out effective means for interacting with NAVSEA and SUP SHIPS in monitoring construction, specifying equipment, etc.

AGOR-24 was back in the Navy's budget. It was to be built as an AGOR-23 clone. The Circular of Requirements was to be finished by about March, 1991 (see earlier concerning UNOLS input), RFP for construction in April-May, 1991, Proposals due in August, 1991 and Construction Award in December, 1991.

AGOR-25 was tentatively in the budget for FY-1994 as an option buy on AGOR-23.

Solicitation for proposals to operate AGOR-24 and/or AGOR-25 was expected in October, 1990. Responses to operate either or both AGOR-24 and AGOR-25 were to be due in March, 1991, with selection in about May. The solicitation was to be similar to that used for AGOR-23, employing similar criteria except without a quid pro quo of retiring an existing AGOR-3.

The Navy's ice-strengthened Arctic research vessel was also in the FY-1992 budget, and looked secure.

Although ONR's budget for ocean research in 1991 had not been reduced, institutions were cautioned that Desert Shield taxes could affect programs across the board.

Don Heinrichs reported that OCE anticipated level funding for 1991. Specifically, there would be no increase for ship operations. Nevertheless, the upward trend for funding Global Initiatives was to continue. NSF was strongly committed to WOCE field operations in 1991; the JGOFS Pacific experiment was to be deferred until 1992. (Additional budget detail was as included in UNOLS Council minutes for July 12, 13, 1990, Appendix III.)

The recent NSF/OCE Dear Colleague letter reduces proposal target dates to two per year for most programs and made the deadline for proposals requiring ship time May 1. This should provide more timely information and funding decisions for ship schedule planning.

Issues concerning management and use of submersibles are important, and should be addressed by UNOLS during 1991. The UNOLS report Submersible Science for the 1990's is pertinent to many of the issues, but needs refinement.

Don Heinrichs reminded the Council that NSF plans for a research vessel for the western Arctic would begin construction in FY-1993, with the bulk of funding in FY-1994 and FY-1995. NSF funding to the University of Alaska for the Glostén Associates/FIC concept study is a part of the overall NSF plan.

Tom Cocke, Department of State, reported that the late submission of requests for clearances for research in foreign waters had become a critical problem. Of 71 requests during 1990, 52 (73%) were received with less than the required lead time. (For details, see Appendix VI.) Concerns were that late submissions may not be granted clearance, thus preventing research; habitually late requests to a given coastal state may damage relations and thereby jeopardize even timely requests, and late submission vastly increase the work load. Although Tom's office will continue to make extra efforts to gain clearances when unusual circumstances lead to late requests, they cannot continue to put forth special efforts for late requests resulting from indifference. The UNOLS Council recognized the overall threat to research in waters under foreign jurisdiction. They agreed that many submissions were late because of indifference. They urged

that DOS get tough, to the point of refusing to process clearance requests from P.I.'s/institutions who were habitually late without justification.

Judith Gray, from NOAA's Office of Oceanic and Atmospheric Research (OAR), discussed potential for NOAA use of UNOLS ships to support their research program investigations. Allocation of NOAA fleet time to OAR research programs had dropped for 1991. At the same time, new programs (e.g., Global Climate Change) would, potentially, increase OAR funding and need for shiptime. The NOAA Administrator encourages OAR to look to UNOLS for research vessel time. Although OAR had explored with several west coast UNOLS institutions the use of UNOLS ships for 1991 investigations, it was unlikely that any such use would be arranged for 1991. They would be able to arrange use of NOAA ships at less cost to OAR research programs.

Jeff Fox reported on ALVIN Review Committee activities in the absence of Feenan Jennings, ARC Chair. As had been reported at the July Council meeting, the ARC had, at its June, 1990 meeting, recommended a 1991 schedule that would include about 150 ALVIN dives. Although this should result in an efficient schedule for ALVIN/ATLANTIS II, the ARC remained concerned that requests for ALVIN use were considerably lower than they had been during most of the 1980's. Obviously, science program demand for ALVIN use is down, both from ONR and from NSF programs. Reasons were not clear, but the high level of competition for funds for all oceanographic research is clearly a factor. The ARC would try, in their planning for ALVIN-supported research, to encourage more interest in the use of ALVIN and to solicit more dive requests. An ALVIN-use bulletin board had been established and the December, 1990 ALVIN Planning meeting had been redesigned to encourage greater use.

The report **Submersible Science Study for the 1990's** had been distributed to the council and to sponsoring agencies in draft form, to encourage Council acceptance and publication of the report.

Don Heinrichs had written Feenan Jennings, ARC Chair, suggesting that, although the **Submersible Science Study** was valuable and raised a number of excellent issues, it needed better definitions, stricter bounds and finer scaling and scoping before recommendations might be accepted.

The UNOLS Council accepted the report, **Submersible Science Study for the 1990's**, with the understanding that the Council would review recommendations therein. Council action on report recommendations was deferred pending review to begin in January, 1991. The UNOLS Office was directed to publish and distribute **Submersible Science Study for the 1990's**.

The Council joined George Keller, Chair, in commending retiring Council members Tom Malone, Art Maxwell, Mike Rawson, George Shor and Jim Williams for their service to UNOLS and the community.

George Keller, UNOLS Chair, had notified NSF that the University of Rhode Island proposal for Hosting the UNOLS Office had been reviewed by UNOLS and been endorsed. (See Appendix VII.) Jack Bash was included as Executive Secretary. The University of Rhode Island had submitted their proposal to NSF/OCE.

UNOLS Council meetings for 1991 were tentatively set for January 29, 30, in Miami; for July 10, 11, Seattle and during September, October in Washington, D.C.

The meeting was adjourned at 5:15 p.m.

AGENDA
UNOLS COUNCIL MEETING
 8:30 a.m. - September 20, 1990
 Conference Room
 American Institute of Architects
 1735 New York Avenue NW
 Washington, DC

Call the Meeting: George Keller, Chair, will call the meeting to order.

Accept Minutes of July 12, 13, 1990 UNOLS Council Meeting: Council action.

COMMITTEE REPORTS

Ship Scheduling Committee: Mike Rawson, Chair, will report on the scheduling process during 1990, schedules for 1991, costs balanced against expected funds and recommendations developed by the SSC. The issue of improving the UNOLS ship scheduling process will be addressed.

Research Vessel Operators Committee: Jim Williams, Chair, will preview his report to UNOLS on RVOC activities and issues during the year and preview the agenda for the October, 1990 RVOC meeting.

ALVIN Review Committee: Feenan Jennings, Chair, will provide a report on ALVIN program status, ARC activities during the year and plans for 1991-1992. Presentation of the Submersible Science Study for the 1990's.

Fleet Improvement Committee: Donn Gorsline, Chair, will report on 1989-1990 accomplishments, reports issued, including the updated UNOLS Fleet Improvement Plan, issues and plans for the coming year.

Issues identified in the Epilogue, Fleet Improvement Plan, and examined by the **UNOLS Council Subcommittee -- Tom Johnson, Peter Betzer and Mike Rawson** -- will be addressed here. (See U/C Chair letter of July 16, 1990.)

UNOLS ISSUES

Fleet Management: The Council agreed in July, 1990 to take up the issues of Class IV (small) ships in the mid-Atlantic (CAPE HATTERAS, CAPE HENLOPEN, WARFIELD and WEATHERBIRD II). Issues are operations projected for 1991 and the longer term match between available ship time and ship needs in the region. Input on this issue may come from reports on **Ship Scheduling and Fleet Improvement**, together with **Tom Malone's report on activities of the Operator Institutions**.

A second Fleet Management issue may arise concerning east coast Class III (intermediate) ships.

Export Controls for High Resolution Bathymetry Systems: A report from George Keller and Federal agency representatives on whether or not the issue has been resolved and, if so, details.

Ship Construction and Renovation: Status of KNORR and MELVILLE renovations and operational availability.

Status of THOMAS G. THOMPSON construction and operational availability.

AGOR-24 and AGOR-25 budgetary status. UNOLS plans/action regarding accommodation into Fleet Improvement Plans.

Remarks from Federal Funding Agencies: Information from Federal agency representatives (ONR with OON, NSF, NOAA, DOS, MMS, USGS, DOE). Budgets and funding for 1990, 1991 or later, ship operations and research support. NSF/DPP will give a status report on their contract with Choest for an RVIB.

Tom Cocke, Department of State, will discuss recent Clearance for Foreign Research experience. Council discussion, especially of late submission of requests for clearance.

UNOLS Office: UNOLS recommendation for URI and Jack Bash has gone forward. URI has submitted their proposal to NSF.

UNOLS Elections: The slate.

UNOLS CHAIR: Ross Heath, UW and Gary Brass, U. Miami

VICE CHAIR: Bob Knox, Scripps and Tom Johnson, Duke/UNC

UNOLS COUNCIL (from reps of operators): George Grice, WHOI and Carolyn Thoroughgood, U. Delaware

UNOLS COUNCIL (at large): David Karl, U. Hawaii and Curt Collins, NPS

UNOLS Appointments to Committees: The Chair will present appointments for Council endorsement.

FIC: Marcus Langseth, L-DGO for Chair (see letter). A slate of several new members will be available.

SSC: Recommendations for Chair, Vice Chair will be forwarded from the Committee.

ARC: Karen Von Damm was approved as a new member by the Council in July.

Calendar for UNOLS Meetings: Before setting a calendar for UNOLS meetings in 1990-1991, the Council should examine the general schedule relative to changes in NSF's proposal dates and other factors. With May, 1991 as the last target date for NSF proposals requiring ship time, is late June the right time for the summer ship scheduling meeting? Is September-October the right time for the UNOLS Annual meeting? (It started in May, then there were semi-annuals in May and September-October, and for the past several years, has been in September-October.)

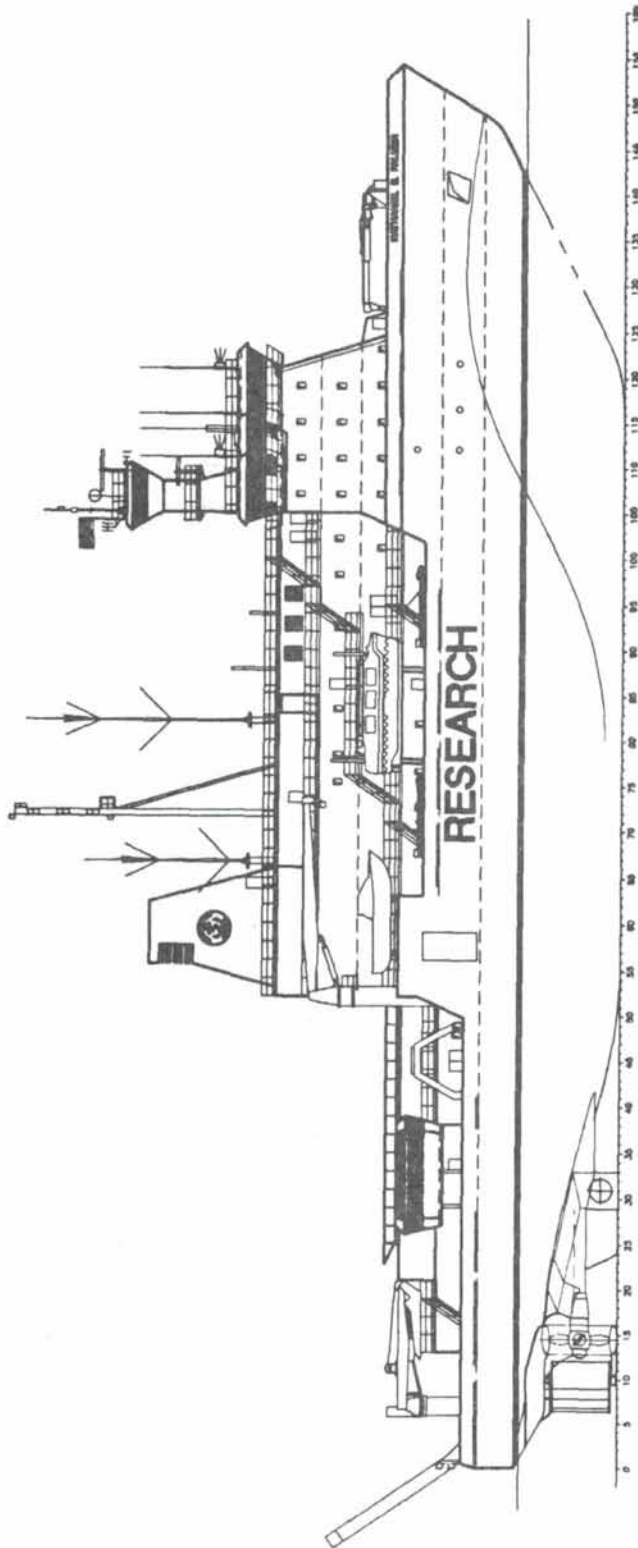
MEETINGS TO BE SET:	TIME:	PLACE:
UNOLS Council	Jan-Feb 1991	A warm one
" "	July ? 1991 (2 weeks after Ship Sched.)	Open
" "	September ?, 1991 (with Annual)	Washington, DC
UNOLS Annual	September ?, 1991	Washington, DC
Ship Scheduling	Late June ?, 1991	Washington, DC
" "	September ?, 1991	Washington, DC
Fleet Improvement Committee	Will set their own 3 meetings	
RVOC	Will set dates in October	
ALVIN Review Committee	December ?, 1990	San Francisco, CA
" " "	June ?, 1991	Woods Hole, MA

Volunteer Venues??

Adjournment.

**There will be a UNOLS wine and cheese in the American Institute of Architects at 6 p.m.
The Council is urged to attend and share the heat.**

The R/V NATHANIEL B. PALMER



Operated for
National Science Foundation, Division of Polar Programs

By
Antarctic Support Associates

Under a charter with
Edison Chouest Offshore

FEATURES OF THE R/V NATHANIEL B. PALMER

The R/V NATHANIEL B. PALMER is being constructed by Edison Chouest Offshore, a private vessel construction and operating firm located in Galliano, Louisiana. The vessel has been designed as a multi-purpose, ice-capable, Antarctic research vessel. She will be operated by Antarctic Support Associates of Englewood, Colorado, under their contract with the National Science Foundation, Division of Polar Programs, to support the U.S. Antarctic Program. The R/V NATHANIEL B. PALMER is ice classed to the new ABS rules, ABS-A2. The vessel will be able to break 3 feet of level ice at 3 knots. The vessel will have stringent track and station keeping abilities. It will be acoustically quiet and will be able to support multi-disciplinary long range programs. The vessel conforms to UNOLS Safety and Science Mission Requirements for large high endurance vessels.

Berthing for 37 scientists in one and two person staterooms.

4,000 square feet of laboratory space located on the main deck.

An Oceanographic Staging Hangar on the starboard side with its own boom and winch system.

Three winch systems capable of handling .322 EM cable, 1/4" and 9/16" torque balanced wire, and .680 conducting cable without changing drums or winches.

An Ether-Net Science Information System

Fully automated Dynamic Positioning System

Hull design and structure to effectively support a multi-beam bathymetric swath mapping system.

High pressure (2,000 psi) compressor and distribution system to support single and multi-channel seismic experiments.

Projected Operations

The R/V NATHANIEL B. PALMER is scheduled for delivery, to Antarctic Support Associates, at Punta Arenas, Chile, in January 1992. She will undergo acceptance tests and trials in the Gulf of Mexico and on the cruise through the South Atlantic preceding arrival at Punta Arenas. The vessel will then commence year-round operations in Antarctic waters.

Requests for information concerning the vessel or her schedule may be addressed to the Division of Polar Program, NSF, or to:
Antarctic Support Associates
61 Inverness Drive East
Suite 300
Englewood, CO 80112

By phone at ASA:

Les Bonde, Deputy Projector Director, Peninsula Systems
Henry Kennedy, Manager RVIB Procurement

(303) 790-8606
(914) 358-5647

THE R/V NATHANIEL B. PALMER

Principal Characteristics

Length Overall	308.50 feet
Length at Waterline	279.75 feet
Beam, Maximum	60.00 feet
Beam at Design Waterline	60.00 feet
Draft at Design Waterline	21.75 feet
Depth	30.00 feet
Displacement	6,500 long tons
Shaft Horsepower	12,720
Accommodations	37 scientists 26 crew
Helicopters	Ability to carry 2
Endurance	75 days
Diesel Oil Tankage	1,683 longtons
Classification	ABS A-2 for vessels operating in ice

Additional Characteristics

Stem Angle	27 degrees
Main Propulsion Brake Horsepower	13,320 BHP
Number of Main Diesel Engines	4
Horsepower per Main Diesel Engine	3,330 BHP @ 100 rpm 3,080 BHP @ 900 rpm
Diesel Manufacturer	Caterpillar
Diesel Designation	3608
Transmission Efficiency (design)	0.96
Number of Shafts	2
Propellers	Controllable Pitch in a Nozzle 4-bladed 4-meter diameter Material: stainless steel
Number of Rudders	2
Type of Rudder	High Lift
Number of Ship Service Generators	4
Rating of Each Ship Service Generator	1,070 KW
Manufacturer	Caterpillar
Diesel Designation	3512
Bow Thrusters	2
Bow Thruster Horsepower	1,500
Prime Mover	Diesel Direct Drive
Type	Water Jet
Stern Thruster	1
Stern Thruster Horsepower	800
Prime Mover	Electric Motor
Type	Tunnel

Scientific Work Spaces

LABORATORIES	Eight, totaling 5,440 square feet.
Deck Bolting Grid	3/8" threaded bolt-down fittings on a 2' grid pattern.
Unistrut Sections	At 2' intervals on all bulkheads conforming to the deck bolting grid.
Fume Hoods	2 laboratory grade laminar flow Class A; a 44" type in the Biochemical Analytical Clean Lab and 36" portable, removable unit in the Wet Lab.
Compressed Air	15 psi at 8' intervals along laboratory bench tops.
Sinks	2 each stainless steel in Main Lab, Hydro Lab, and Wet Lab with 2 ceramic in Biochemical Lab, and one each in Hydro Lab and Wet Lab.
SCIENCE STOREROOMS	One totaling 400 square feet. One hazardous materials storeroom, 200 square feet and one cold storage room (science freezer) 120 square feet.
Container Space	Below deck storage for four science lab/cargo vans.
Loading Hatches	On open decks above science hold; interior access available to each from Main Deck.
CLIMATE CONTROL CHAMBERS	2 - 8' x 8' x 10', capable of controlling internal temperature at -1 degrees C, plus or minus 0.5 degrees C.
SCIENTIFIC FREEZER	8' x 8' x 10', capable of maintaining a temperature of -18 degrees C.

Ship Equipment

SHIP SERVICE

Clean Power

M-G sets supply 88 KW for laboratories, plus necessary clean power for exterior communications, navigation equipment, and DPS and propulsion machinery controls

UPS

12 KW

Water Capacity

Freshwater
Saltwater

30 longtons per day from two evaporators.
Uncontaminated saltwater system supplies 20 gpm to labs.

DECK

Winches

CTD

Markey DUSH-5, electric/hydraulic, 10,000 meters of 0.322" EM cable.

CTD/Hydrographic

Markey DUSH-5-5WF with 10,000 meters of 0.322" EM cable and 10,000 meters of 1/4" 3 x 19 torque balanced wire.

Trawl/Coring

Markey DUSH-9-11WF double drum electric/hydraulic, in sheltered winch room, 10,000 m. of 9/16" 3 x 19 torque balanced wire and 10,000 m. of 0.680" EM cable. Closed circuit TV monitors winch room.

Frames

A-Frame

On stern, 60-ton static load, 20 tons in motion, vertical clearance, 30'; outreach 20', inboard 15', inside width 20' at base, 16' at top.

On starboard side, 60-ton static load, 20 tons in motion, vertical clearance 20' outreach 8', inboard 6'.

Hydraulic Boom

A 6-ton in motion capacity hydraulic boom which extends outboard from the Oceanographic Staging Hangar, with a reach of 15' from the side of the vessel.

DARK ROOM

Sinks and cabinets provided; installation of autoprocessor and enlarger planned.

DIVING LOCKER

Accessible from starboard side of the Main Deck; installation of a breathing air compressor system with storage tanks planned.

SCIENCE OFFICE

Desk, file cabinets, bookcase, light table, chart file, and marker board provided.

LABORATORY VANS

Two ISO standard 8' x 8' x 20' vans, configured as Hot Isotope Labs are available for use on the vessel.

10 KVA, 115/208V power panel; connections for both fresh and uncontaminated seawater, 2 unistrut support systems with 3/8" threaded bolt-down fittings on a 2' grid pattern.

Full services as stated above are available at lab van locations in the hold, in the helicopter hangar, and on the helo deck.

Cranes

The vessel is fitted with several articulated cranes capable of servicing all areas of the working decks forward and aft. These cranes range in capacity from 2 1/2 tons to 10 tons.

Workboats

A 26-foot steel boat with forward cabin and aft working deck. This boat will be ice strengthened similar to the R/V NATHANIAL B. PALMER and fitted for safe operation in the polar environment.

There will also be several inflatable boats aboard for scientist's use.

Scientific Instrumentation and Equipment

Scientific Instrumentation and Equipment decisions are currently being made by NSF for this vessel. Systems under consideration include:

CTD System

Doppler Current Profile

3.5 and 12 KHz Precision Depth Recording Systems

Single and multi-channel Seismic systems

A multi-beam swath mapping system

UNIVERSITY-NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

An association of Institutions
for the coordination and support
of university oceanographic facilities

Research, Graduate Studies,
and International Programs
Oregon State University
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July 16, 1990

RECEIVED

JUL 19 1990

MEMORANDUM

UNOLS OFFICE

TO: Thomas Johnson
Peter Betzer
Mike Rawson
George

FROM: George H. Keller, Chairman

SUBJECT: Issues from the UNOLS Fleet Improvement Plan to be Reviewed
for UNOLS Council consideration and action

Per our discussion at the UNOLS Council meeting last week, you are constituted as a subcommittee to review and recommend for Council action the following issues presented in the Epilogue section of the UNOLS Fleet Improvement Plan.

- Rationale for being designated a UNOLS vessel. -- There may be a need to better state the rationale for designating a vessel as a member of the UNOLS fleet. You should consider if it is appropriate to make a statement regarding what such membership means and does not mean.
- Criteria for admission to the UNOLS fleet. -- Is the criteria effectively and clearly stated?
- Policy regarding NSF or ONR support for the lay-up of UNOLS vessels. -- Owing to the different characteristics of the UNOLS fleet (in regard to vessel ownership), should there be a stated UNOLS policy or recommendation regarding which vessels might be eligible for ONR or NSF support during lay-ups? Should the federally procured ships be treated differently?
- Should there be two or more grades of membership for research vessels in UNOLS?

- What should constitute a "full working year"? -- A white paper on this subject was developed by the RVOC about two years ago and the subject has been discussed by the UNOLS Council more than once. There does seem to be some rule of thumb that has evolved from these discussions. But should a more concerted effort be made to develop some guidelines regarding this issue? There are variables that come into play here, depending on the type of vessel operation to be considered in any such guidelines. If guidelines could be developed, they would serve as an important point of reference as debates arise as to what is an effective schedule. In thinking about this, you might review each ship as to its mode of operation.

I would appreciate it if you would make your recommendations to the next Council meeting on September 20th. Thank you for assistance in moving ahead on these issues.

GHK:mg

cc: Bill Barbee
Gary Brass
Worth Nowlin



DUKE/UNIVERSITY OF NORTH CAROLINA
OCEANOGRAPHIC CONSORTIUM

Duke University Marine Laboratory
Beaufort, North Carolina 28516

Phone (919) 728-2111
Fax (919) 728-2514

18 September 1990

To: George H. Keller, UNOLS Chairman

From: Thomas C. Johnson
Peter R. Bötzer
Michael Rawson

Re: Issues from the UNOLS Fleet Improvement Plan Epilogue, to be reviewed for UNOLS consideration and action.

In response to your request at the last UNOLS Council meeting and your letter of July 16, 1990, we reviewed the subject issues. TCJ sent out the attached note to PRB and MR on 16 July, and received written responses, attached, on 7 and 9 September. Our mutually conflicting schedules of meetings and vacations prevented us from discussing any of the issues at length, however we offer the following preliminary thoughts for further discussion at the UNOLS Council meeting on September 20.

- The rationale for being designated a UNOLS vessel is quite clear and reasonable, as stated in the UNOLS Charter. Criteria for being admitted to the UNOLS Fleet are reasonably clear as well. The implications of a vessel being admitted to the UNOLS fleet, however, are considerable. No guarantee of support by federal funding agencies is explicitly stated, but it is anticipated by the operator institution. To some extent this is justified, because the operator institution provides an infrastructure to the national oceanographic program that at times incurs direct expenditures by the operating institution and subsidy by its host state. Employees of the ship operation justifiably expect job security. The following suggestions should be discussed by the UNOLS Council:
 - More stringent criteria could be established and applied for admission to the UNOLS fleet that take into account total fleet requirements.
 - There could be two grades of membership for research vessels in UNOLS. Federally owned vessels would be guaranteed reasonably full schedules or fully supported layups. Privately owned vessels designated as UNOLS vessels would be supported to whatever extent is possible by the available funds after the federally owned fleet has been accounted for.

- Expand the UNOLS fleet to include non-academic research vessels in the federal oceanographic fleet (NOAA, USGS, etc.), as suggested in P. Betzer's letter to T. Johnson, dated Sept. 5, 1990, attached. The result may be greater utilization of the academic fleet by federal agencies that traditionally have not been major subscribers to UNOLS ships.

The classification of UNOLS vessels based on length has caused some problems, particularly concerning the definition of a "full working year" and the comparison of daily cost of ship time for vessels within a class. This is primarily the result of widely disparate capabilities, berthing space, endurance and time away from home port that vessels within a single class may exhibit. The seasonality of vessel operations in the Great Lakes, Chesapeake Bay and Alaska certainly affect daily ship costs for three vessels in the UNOLS fleet. The following possible changes, as outlined in M. Rawson's letter to T. Johnson, dated 7 September 1990, attached, are presented for discussion by the UNOLS Council:

- Eliminate the classification system altogether. The main rationale for the system is that it allows for a grouping of vessels in the schedule process where vessels of one class tend to have more schedule mismatches than interclass programs.
- Classification by operational areas. This wouldn't work too well for a vessel which changes operational areas from year to year.
- Some variation of science berths/LOA ratio classification similar to Linda Goad's analysis (attached).
- Classification by daily costs. Where would one make the distinction between one class and the next?
- Classification based generally on the recent FIC studies which provide minimum requirements for "medium" and "high" endurance vessels. "Low" endurance vessels would have to be defined by the same criteria.
- Perhaps the classification system should remain as is, and any anomalously classed vessel under the present system should be moved to a more appropriate class.

A "full working year" for vessels in different classes was defined by the RVOC a couple of years ago. The problem with the definition was that it did not take into account some of the anomalies that may exist within a single class, as described above. M. Rawson conducted a survey of UNOLS operators for this report to obtain their opinion of optimum number of working days per year. Only ^{five} three operators replied. Their responses are appended to this report.

- The UNOLS Council should consider requesting that the RVOC review their definitions of full working year for the UNOLS fleet and consider refining their definitions based on individual vessels rather than by class.

- Each operator should generate a curve of daily ship cost versus total number of ship days per year (Fig. 1). These curves generally are exponential, with the added cost per day of ship time decreasing fastest in the first 180 days. A mathematical analysis of the suite of all curves for the fleet should be possible that would determine the optimum number of days that each ship should be at sea. This would not be adhered to rigorously because so many other factors must be considered when constructing the ship schedule. However it might indicate where ship time could be moved between vessels at great overall savings to NSF and ONR without adversely affecting the science requirements.

Finally the Fleet Improvement Plan focused on the large and intermediate ships. Equal focus is now required for the small ships in the UNOLS fleet. As the Plan states, the primary criterion for fleet composition and direction is the science funding. A strong case can be made for the likelihood of a significant increase in funding for coastal oceanography with the current concern about environmental issues and global change. The UNOLS Council should consider the appointment of a committee to address the science mission requirements and future composition of the small research vessels in the UNOLS Fleet.

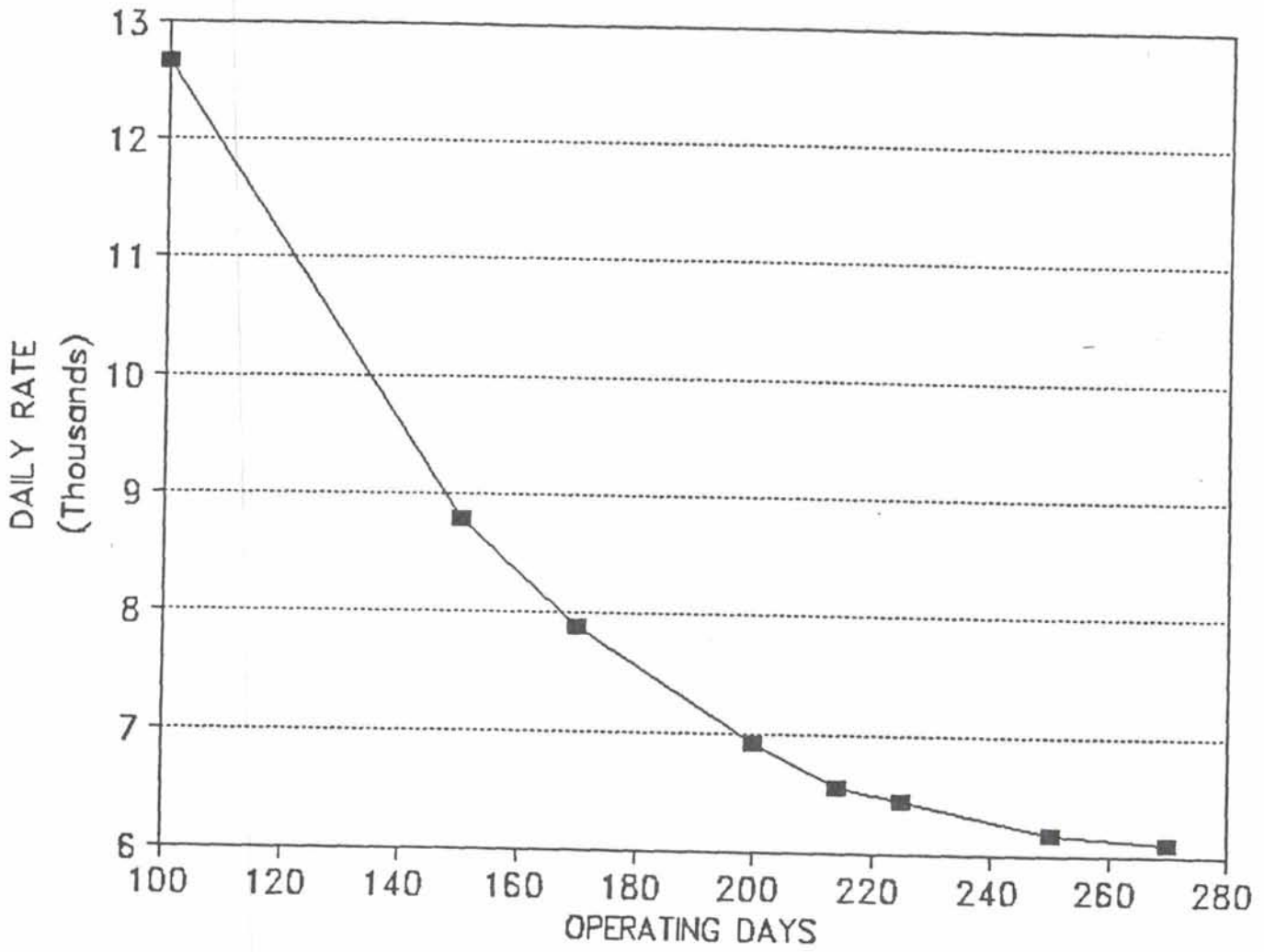


Fig. 1

MID-ATLANTIC SHIP OPERATIONS
An Interim Report to the UNOLS Council

4 September, 1990

Tom Malone, Chair
Don Boesch
Tom Johnson
Tony Knap
Waddy Owen
Carolyn Thoroughgood

A meeting was held on 30 August, 1990 in Washington, D.C. in response to issues raised by the UNOLS Council (George Keller letter of 23 July to ship operators) concerning the cost-effectiveness of operating four "small" vessels in the mid-Atlantic region. Bill Barbee (outgoing Executive Secretary) and Jack Bash (next Executive Secretary) also attended.

The vessels of concern are the CAPE HATTERAS, CAPE HENLOPEN, RIDGELY WARFIELD, AND WEATHERBIRD II. All are UNOLS vessels except the WEATHERBIRD II. The problem is particularly acute for 1991 because of light schedules for the two "Cape" vessels and potential funding short-falls for ship operations in general. We met to (1) address problems of scheduling efficiency and operating costs for the region as a whole for calendar year 1991 and (2) to discuss short-term (1990's) and long-term (2000-2030) ship-needs for the region in general and for coastal oceanography in particular. **We emphasize that our recommendations are made in the context of large uncertainties in funding and scheduling and current debates concerning the definition of a full schedule, the criteria for classifying research vessels, the establishment of requirements for becoming a UNOLS vessel, and the extent to which federal support should preferentially target federally owned vessels.**

The Near-Term (1991)

The meeting began with a discussion of ship schedules. Waddy Owen presented a plan that combined the schedules of the CAPE HATTERAS, CAPE HENLOPEN and WARFIELD into a single ship operation with the WEATHERBIRD II operating a full schedule. Upon close examination, we concluded that this was an unrealistic schedule given differences in capabilities and scientific needs and potential overloads of the ENDEAVOR and WEATHERBIRD II. A scenario involving a WEATHERBIRD II lay-up was also discussed and rejected based on the strength of her schedule (270 days) and the need for a dedicated vessel to support the JGOFS time series. After extensive debate, we agreed to the following recommendation:

(1) Lay-up the WARFIELD for the entire year and transfer her schedule to the CAPE HENLOPEN. This would give the HENLOPEN a reasonably full schedule and provide an opportunity to proceed with the proposed transfer (to the University of Maryland) and refit of the WARFIELD.

(2) In addition to the CAPE HENLOPEN, operate the CAPE HATTERAS and the WEATHERBIRD II. WEATHERBIRD II plans to go into the yard for 6 weeks so that about 28 science days could be transferred to the HATTERAS or HENLOPEN. In addition, the ENDEAVOR may be overbooked by 20 days or more, in which case some of her schedule may also be picked up by the HATTERAS or HENLOPEN.

Although there is some uncertainty, this plan should result in full schedules for the Bermuda ship and the two "Capes." It must be recognized that this recommendation is based on funded science as of 30 August, 1990 and is an interim solution to a funding problem that has been building for sometime. The "problem" is a consequence of (1) funding short-falls for both science and ship operations (which have become particularly acute in FY 1991), (2) the need for more capable research vessels, and (3) poor coordination among government agencies that support ship operations in the coastal zone.

The Short-Term (1990's)

Clearly, decisions to operate, lay-up, or retire ships in 1991 should be based on historical trends and anticipated science needs on both short- and long-term time scales as well as scheduling and funding short-falls specific to 1991. There are several important and related issues that are compounded by the current fiscal crisis:

(1) What is the best mix of vessels in the middle Atlantic region for the 1990's in terms of both science needs and operation costs? Should the WARFIELD and/or the CAPE HENLOPEN be retired? Is it appropriate to bring another UNOLS vessel (WEATHERBIRD II) on line at this time?

(2) Should research vessels engaged in coastal zone work be funded and operated in the same mode as ocean going research vessels?

(3) Will the current mix of vessels support science needs beyond the year 2000?

These are questions that were not addressed by the "UNOLS Fleet Improvement Plan" (1 May, 1990 report of the FIC), and it is not our purpose to address them in depth here but to

initiate a process that will lead to coordinated interagency action in the very near future.

We believe that retiring the WARFIELD at this time would be premature and unwise. She has had a stable schedule for the past 23 years with an average annual usage of 136 days yr^{-1} and a 1991 schedule of 124 days (not including approximately 20 days of funding appropriated by the State for FY91). Based on the 1990 daily rate, the "break-even" point for the WARFIELD would be about 105 days. The HENLOPEN has been in operation for 15 years with NSF funding an average of 73 days yr^{-1} (123 days yr^{-1} total on average) since 1983 when she became a UNOLS vessel. Based on the 1990 daily rate, the break-even point would be about 120 days.

Projections for oceanographic research in the region by the NSF, ONR, NOAA, EPA, USGS and DOE suggest that funding for science requiring ship support is likely to increase but at a rate that is difficult to predict at this time. Open ocean work in the Bermuda area will build on the current JGOFS time series as more "process" oriented studies are funded by NSF, ONR and NOAA as part of global science initiatives. It is unlikely that WEATHERBIRD II will be able to accommodate this increase given her current schedule and capabilities. In addition, NSF (Land-Sea Interface, GLOBEC, COOP), NOAA, EPA, USGS and DOE are implementing or planning major new initiatives in the coastal ocean (estuaries-continental shelf). These initiatives reflect the clear and urgent need for improved understanding of the physical, chemical and biological processes of estuarine and coastal ecosystems that influence the global carbon budget, productivity, water quality, and fisheries, especially in light of potential changes in sea level. **Given the implementation of these initiatives, the diversity of funding sources, the range of capabilities of the current mix of ships, the capabilities of academic institutions in the region, and the time required to improve the fleet of coastal vessels through new ship construction and retirements; we conclude that there will be sufficient demand to justify continued operation of four vessels through the 1990's.**

The Long-Term (2000-2030)

There are few places on earth where the missions of so many government agencies come together as in the coastal zone of the land-sea interface. These include the NSF, NOAA, EPA, USGS, DOE and State environmental agencies. Environmental research in the coastal zone is particularly important because of its role as an interface between the land and the sea and is particularly demanding because it is a diverse environment characterized by high physical and

biological variance and rapidly increasing anthropogenic impacts. Oceanographic research will be driven by the need for improved understanding of specific processes and groups of organisms, the life support functions of whole ecosystems, and interactions among ecosystems. Consequently, the need for more effective collaboration among agencies and scientists will increase. **Thus, we question the extent to which the current mix of ships and mechanisms of support will be adequate for future environmental research programs in the long term.**

The research needs of the mid-Atlantic region will be best served through interagency collaboration to define goals and establish an integrated plan of research and monitoring that will support the respective missions of each federal and state agency. Although the goals and responsibilities differ among agencies, the means by which information is obtained and/or the information itself are often redundant. To avoid unnecessary duplication and costs, fleet improvements and operations in coastal environments should be an interagency process.

One scenario that was favorably discussed involves a mix of ships consisting of a small number of vessels capable of carrying large scientific parties with sufficient laboratory space and "over-the-side" working capabilities to support interdisciplinary research programs and mooring operations and sea-keeping capability to allow operation in a diversity of environments from shallow estuaries to the shelf-break. Each ship would be (1) responsible for a particular region (e.g. the Middle Atlantic Bight, Chesapeake Bay, Delaware Bay, the Hudson River and Long Island Sound); (2) operated by a consortium of Universities with research interests in the region; and (3) operate out of more than one "home" base depending on the location of the operating area and user access. Programs that are more site-specific and disciplinary (requiring small scientific parties) in character would be conducted on smaller vessels supported mainly by state agencies, academic institutions, and other user groups. Federal support would be comparatively modest, perhaps through research contracts and grants.

For the mid-Atlantic region such a strategy might translate as follows:

(1) Replace the WARFIELD and CAPE HENLOPEN by the turn of the century with a single vessel that can conduct large interdisciplinary research programs in the Chesapeake Bay, Delaware Bay, Hudson River, Long Island Sound and continental shelf environments of the Middle Atlantic Bight.

(2) Maintain support facilities at Lewes, Delaware (in place) and Solomons, Maryland (currently being upgraded

to support larger ship operations with NSF and University of Maryland funds). This will allow a more cost-effective operation by increasing access of scientists to the vessel depending on their point of origin and the location of the study area, reducing transit times, and pooling resources (personnel, shared-use equipment, technicians).

(3) Establish a Mid-Atlantic Research Consortium for Oceanography to develop a fleet improvement plan for the region and to improve and maintain a high quality, cost-effective program of ship operations. Dr. Don Boesch (Director of the University of Maryland Center for Environmental and Estuarine Research) and Dr. Carolyn Thoroughgood (Dean of the College of Marine Studies, University of Delaware) have agreed to organize the first meeting.

(4) Develop greater state and local funding for small ship operations that will support environmental research and monitoring programs which are primarily concerned with local environmental problems and issues.

These are not formal recommendations but are intended to "prime the pump." Given the age and capabilities of the current mix of ships that support coastal marine and estuarine science and the clear need for more sophisticated, multi-PI research, the issue of how to provide appropriate research platforms in an efficient and cost-effective manner must now be addressed. Thus, our final recommendation is that the UNOLS form an interagency committee to develop a plan for the cost-effective improvement of operations and capabilities of coastal research vessels. This process must be initiated now if such a plan is to be implemented by the end of the decade.

Late Research Vessel Clearance Requests

Dept of State, Office of Ocean Affairs has tabulated the 71 clearance requests (for 117 coastal states) received during 1990 in terms of timeliness. The result indicates that 52 (73%) of the requests were received with less than the required prior notice and more than half of those (28 requests-39%) were already late in terms of coastal state requirements. The result of this high number of late requests is that other requests submitted in a timely manner must sometimes be set aside to process one that is close to becoming late, or perhaps already late. Given the high number of requests being received and the frequent coastal state problems which must be dealt with, we must be careful to assure that requests reaching our office on time are not made late by the frequent late requests. The most serious result of this unnecessarily high number of late requests is that the coastal state may become impatient and U.S. access could be jeopardized. Secondly, having to interrupt our schedule of processing to accommodate late requests costs our office valuable time which, in many instances, may be needed for attention to problems with pending requests.

Although the responsibility for submitting the clearance requests is shared by the ship operating institution, its ship's master and the scientist in charge of the research, it is obviously of primary interest to the ship operator to assure that the necessary clearances are obtained. As soon as the research cruise is scheduled for a vessel, the operator should begin considering the clearance process. Although much of the input for the clearance must be provided by the chief scientist, it is not wise for the ship operator to depend entirely on the scientist to initiate or monitor the clearance process (nor should the scientist assume the operator alone will secure the clearance).

Most of the late requests have no really valid reasons for their lateness and few institutions even bother to fabricate a reason; the assumption obviously being that we are a government agency required to carry out this function for the users. Our policy is, and will remain, that we will not jeopardize a request submitted on time to deal with one submitted late. In some cases we may decide not to process the request at all, if it is determined that the late request will jeopardize other pending clearances, or if the pattern of late requests to a particular coastal state has become an irritant that could result in denial of our future requests. This will be particularly true when a coastal state has already lodged a complaint about late requests, as is the situation with France, Mexico and Spain.

This is one area of clearance processing which we are able to improve ourselves. All that is necessary to eliminate this problem is for researchers to plan ahead and submit requests on time, in accordance with the UNOLS "Handbook for International Operations of U.S. Scientific Research Vessels, Appendix F (Notice to Research Vessel Operators No. 68)". There will be occasions wherein a valid reason exists for submission of a late request. Please cooperate and give us time to deal with those.

UNIVERSITY-NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

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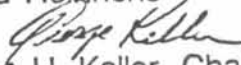
July 17, 1990

RECEIVED

JUL 20 1990

UNOLS OFFICE

MEMORANDUM

TO: Donald Hejprichs
FROM: 
George H. Keller, Chairman
SUBJECT: Proposal to host the UNOLS Office

In recent months, UNOLS has gone through the process of soliciting and evaluating proposals from the UNOLS community to host and staff the UNOLS office, commencing in late 1991. This process has now been completed, and by vote of the majority of the UNOLS membership, the proposal from the University of Rhode Island has received our endorsement. This proposal, which includes Jack Bash as the Executive Secretary, received very strong endorsement from throughout the UNOLS community.

I am pleased to relay UNOLS' strong support for the University of Rhode Island's proposal which you should receive in the near future.

GHK:mg

cc: W. Barbee
G. Brass
R. Duce
T. Johnson
W. Nowlin



