UNIVERSITY-NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

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

UNOLS Office, WB-15
School of Oceanography
University of Washington
Seattle, Washington 98195

June 17, 1983

To: UNOLS Members
UNOLS Associate Members

From: William D. Barbee
Executive Secretary, UNOLS

Subject: Advisory Council minutes, meeting of May 25, 1983

Draft minutes of the May 25, 1983 meeting are attached. Although these minutes have not been formally accepted by the Advisory Council, unless changes are incorporated during their review, this will be the only distribution.

cc: Advisory Council (New and Old)
R. La Count
K. Kaulum
E. Finkle
R. Alderman
R. Wall
J. McMillan

HIGHLIGHT SUMMARY

UNOLS Advisory Council Meeting

Highlights of the May 25, 1983 Advisory Council meeting are presented for your convenience.

-Council endorses UNOLS National Expeditionary Planning Program for presentation to UNOLS. (p. 1)

-Council endorses dynamic ship schedule concept and directs UNOLS Office to design and implement. (p. 2)

-Council directs UNOLS Office to canvas Member institutions to determine UNOLS need and use for radio frequency allocation. (p. 2)

-Advisory Council standing roles reviewed. (pp. 2,3)

-Council resolves to deliberate on UNOLS Charter (revision) to include examination of membership criteria. (pp. 3,4)

-UNOLS meetings scheduled:

Advisory Council	July 28, 29, 1983	Durham, N. H.
Advisory Council	Week of Oct. 24, 1983	Washington, D.C.
Joint Ship Scheduling	Week of Oct. 24, 1983	Washington, D.C.
UNOLS Semiannual	Week of Oct. 24, 1983	Washington, D.C.
Advisory Council	Week of Feb. 13, 1984	Pigeon Key, Fla.

-Uniform Ship Operations Costs and Accounting. (p. 4)

-Workshop on Ship Operations Proposals. (p. 5)

ADVISORY COUNCIL MEETING
COSMOS CLUB
WASHINGTON, D.C.

Minutes of the Meeting, May 25, 1983

Advisory Council Members and Representatives from the National Science Foundation and the Office of Naval Research convened in the Board Room, Cosmos Club, Washington, D.C. at 7 p.m. The meeting was called to order by Chairman Bruce Robison at 8:45 p.m. The following were present:

Advisory Council	Observers
Robison, B.H., Chairman	Kaulum, K., ONR
Curray, J.R., Vice Chairman	La Count, R.R., NSF
Gorsline, D.S.	McMillan, J.G., NSF
Larson, R.L.	Wall, R.E., NSF
Miller, C.B.	
Spencer, D., *ex-officio*	UNOLS Executive Secretary
Van Leer, J.C.	Barbee, W.D.

The agenda is attached as Appendix I.

The Minutes of the Advisory Council Meeting of March 14, 1983, held in Boulder, Colorado, were accepted.

UNOLS Semiannual Meeting Agenda: Pertinent Semiannual Meeting agenda items were discussed by the Council.

The Council was informed that Monsieur Jean-Pierre de Longeau, *Chef du Service des Operations Navales, Direction de la Flotte, CNEXO* had attended the Joint East-West Ship Scheduling meeting to encourage U.S.-France cooperative use of ships and facilities. He is hopeful of arranging at least one project from each country to be conducted using ships from the other.

Discussion of the UNOLS National Expeditionary Planning Program (UNEPP) was initiated by D. Spencer, Chairman, UNOLS, in terms of the proposed UNOLS initiative distributed to Member and Associate Member institutions in April, 1983.

The Advisory Council endorsed the UNOLS National Expeditionary Planning Program as presented in the proposed initiative.

The Council further advised that the initiative be presented to UNOLS membership at the May 26, 1983 Semiannual Meeting, forwarded for adoption at the May 27, 1983 Meeting, and, if adopted, that nominations and election be held for Chairman, UNOLS National Expeditionary Planning Committee (UNEPC).

K. Kaulum, ONR representative, asked that, as a part of their planning and scheduling activities, UNOLS undertake to establish and maintain a data base of UNOLS ship schedules. The objective would be to maintain and make available to the community up-to-date information on current and projected

ship schedules from UNOLS institutions. It was suggested that such a dynamic ship schedule effort should employ electronic mail (a bulletin board), should be coordinated by the UNOLS Office, and be based on direct input from ship operating institutions.

The Advisory Council endorsed the dynamic ship scheduling concept, and directed that the UNOLS Office design and begin to implement an electronic mail scheme for up-to-date ship schedules.

Other items on the Semiannual Meeting agenda were addressed by the Council as they arose relative to remaining Council Meeting agenda items.

UNOLS Communications and Radio Frequency Management: At their Meeting on May 23, 1982 the Advisory Council had considered the issue of UNOLS operational communication, radio frequency management and the possible need for frequency allocation. It was the sense of the Council at that time that the ocean community's historical need for operational and data transmission frequency allocation remained. The Council directed that the UNOLS Office undertake a solicitation of UNOLS Member institutions *to determine fleet needs and use of working radio frequencies*. That solicitation was deferred pending the establishment and implementation of an appropriate operational arrangement for UNOLS use of the Satellite Communications Link (SCL). (The SCL is now being operated successfully under the University of Miami.)

The Advisory Council resolved that the UNOLS Office conduct a solicitation of Member (operating) institutions to determine UNOLS fleet needs and use of working radio frequencies.

It was the sense of the Council that this solicitation be completed without delay, as an aid in acquiring necessary frequency allocations for the community. The solicitation should differentiate between uses and needs for data transmission and for operational purposes, as well as between satellite links and ground links.

Annual Advisory Council Report and Standing Roles: In the brief discussion of the Advisory Council's Annual Report it was noted that the Council's efforts during the past year dealt chiefly with their study on Fleet Composition and Management and with their March 18, 1983 Reexamination. These two studies will be emphasized in the Annual Report.

Other Council activities are to be reported in terms of the Council's standing roles:

Effective Council action on Research Vessel User's Manuals and on cooperative bulk purchases has been completed. A report on users' manuals has been distributed to UNOLS membership. A process for bulk purchase of oceanographic wire and cable has been implemented. Additional bulk purchase of wire and cable are in the purview of funding agencies with advice on combined institution requirements compiled through ship scheduling groups.

Council representatives continue to monitor East and West Coast Ship Scheduling meetings.

Cruise Assessment Reports, completed by principal investigators and filed by operating institutions for individual cruises on UNOLS ships, have proven valuable in monitoring fleet efficiency and effectiveness. Summaries of 1982 Assessment Reports were presented to the Council. *The Council directed that the 1982 UNOLS Cruise Assessment Summaries be submitted to funding agencies and distributed to UNOLS membership.*

The Council role on specialized facilities continues with the establishment of a Subcommittee consisting of:

Roger Larson, Chairman
Charles Miller
Tom Rossby
Lou Gordon.

The Subcommittee is examining means for acquiring higher-cost, high-technology instrumentation and facilities for the use of the oceanographic community. A prospectus was presented to the Council (Appendix II) for acquiring and operating modern instrumentation through the establishment of cooperative instrumentation centers.

The Advisory Council endorsed the prospectus and moved that the subcommittee proceed.

The replacement and addition of ship's equipment is no longer a separate Council role. A draft report on winches and wire has been distributed, a workshop has been organized on microcomputers, and NSF has entered into a direct arrangement with the University of Miami for management and operation of a satellite communications station to serve the fleet.

The Subcommittee on International Restrictions to Ocean Science Research has participated in the development of three statements for UNOLS approval: a general policy statement, a response to a request for comment on legislation to facilitate the conduct of international ocean science research, and a statment urging the initiation of negotiations to establish bilateral agreements, especially with Mexico and with Canada. These statements will be placed before the UNOLS Membership at their Semiannual Meeting. The Subcommittee Report to UNOLS will be made by David Ross.

Advisory Council consideration of replacements, additions and retirements of the UNOLS Fleet are in part coordinated with the UNOLS Committee on Orderly Replacement (UNOLS resolution, October, 1982), in part on their continuing examination of Fleet Composition, Distribution and Management and through the Council role in identification of new platform design ideas.

UNOLS Charter and Membership: Before addressing Charter and Membership issues, the Advisory Council was informed that the Chairman, UNOLS had received a letter from the University of Texas representative to "...request that UNOLS designate the R/V FRED H. MOORE to become a part of the UNOLS Fleet."

It was noted that the UNOLS Charter:

-includes criteria for Member institutions,
-includes criteria for Associate Member institutions, and
-outlines procedures for membership applications and election to (or designation as) Member or Associate Member.

The Charter, however, is silent on:

-definition of or criteria for designating vessels as UNOLS vessels,
-procedures for designating vessels as part of the UNOLS fleet.

Thus, it is not clear if authority exists within UNOLS to designate UNOLS vessels or, if that authority exists, where it resides.

The sense of the Advisory Council was that UNOLS should defer action on the University of Texas request pending better understanding and definitions of UNOLS vessels.

The Council also noted that in a few instances changes in the scope of operations at some intitutions have resulted in a few member and associate member designations at odds with criteria in the Charter.

The Advisory Council resolved to deliberate on changes in the UNOLS Charter, including an examination of membership criteria.

The Council decided to address the Charter as a principal item at their next meeting, and, prior to that meeting, to solicit UNOLS Membership for their suggestions on revision.

UNOLS Meetings: The Council and the UNOLS Chairman set a tentative schedule for UNOLS Meetings:

Advisory Council	July 28, 29, 1983 Durham, New Hampshire
Advisory Council Joint Ship Scheduling UNOLS Semiannual	October 27, 28, 1983 or October 26, 27, 28, 1983 Washington, D.C.
Advisory Council	Week of February 13, 1984 Pigeon Key, Florida

Other Business: R. La Count and K. Kaulum reiterated the need within their agencies to achieve a greater uniformity among institutions in accounting for individual ship operation costs and *where warranted* to eliminate significant differences in the cost of operation of different ships of the same or similar class. They expressed the need for a clear explanation of all ship costs and suggested that this should be a UNOLS function.

The Advisory Council noted that they had already endorsed the need for uniform costs and cost accounting in their Fleet Management Report. The Council also noted that the Research Vessel Operators' Council intends to address the operations cost issue at their meeting in autumn, 1983. Further UNOLS Meetings or Workshops should be deferred pending RVOC results.

Mr. La Count also stated his intention to hold a workshop on ship operations proposals. The workshop will be coordinated with the October, 1983 meetings of the East and West Coast Ship Scheduling Groups.

The meeting was adjourned at 11:50 p.m.

WDB:gm

UNOLS ADVISORY COUNCIL

AGENDA FOR MEETING

7:00 P.M.

25 May 1983

Cosmos Club, Board Room
Washington, D.C.

Accept Minutes of March 14, 1983 Meeting.

Examine agenda for May, 1983 Semiannual Meeting. (Pertinent Items: U.S.-France Co-op Program, Outlook for 1984, 1985 support, International Restrictions on Ocean Science, UNEPP, Ship Schedules, Charter and Membership and Elections.)

UNOLS Communications and Frequency Management.

Standing Roles and Input to Annual Report - AC Members.

University of Texas request to include FRED J. MOORE in UNOLS Fleet.

Other Business.

UNOLS Committee on Specialized Laboratory Facilities for Oceanographic Research

A Prospectus

1. The Situation: Science and technology have evolved to a new plateau on which instrumentation of refined sensitivity and elaborate sophistication can open entirely new horizons in our understanding of the natural world. This instrumentation is largely the product of the electronics revolution. A wide range of physical effects can now be dectected and recorded at periodicities ranging to nanoseconds. Computers enable decisions to be made and automated actions to be taken at periods only slightly longer. Objects can be examined on micron scales with respect to elemental and even isotopic composition. Maps can be made of the interiors of large, solid objects. Images can be analyzed with sophistication verging on intelligence at frequencies that make possible evaluation of samples gargantuan by the standards of a few years ago. A list of specific instruments at this new plateau includes x-ray tomographs, laser spectrographic cell sorters, SEM-directed spectometers, and a host of others.

Oceanographers, with a few instructive exceptions, have not been fully active in exploiting the new possibilities inherent in modern instrumentation. That has not been true for specific instruments costing less than about $ 50,000, and most of our laboratories have one or more instruments in that price range. But it has been true for more costly equipment, and an important feature of the most complex, potentially most productive instruments is their very high unit cost. Not many such instruments will be sold in any field, and unit costs will remain high. Probably some possible instruments are never built because no market for them can be conceived. We believe that many new approaches to oceanographic problems would be pursued if means could be found to overcome the cost barriers to specific modern instrumentation.

2. Proposal: The UNOLS Committee on Specialized Laboratory Facilities for Oceanographic Research proposes that a mechanism be established to promote applications of modern instrumentation in oceanography. There should be a *Program for Cooperative Instrumentation Centers for Oceanographic Research* (CICOR's).

The exact character of the CICOR Program will be the subject of committee discussions. However, some characteristics can be anticipated. CICOR's will be the sites of specific instruments or groups of related instruments whose acquisition costs are of the order of a million dollars or more, and whose maintenance requirements include a small staff of full time operators. The instruments at CICOR's will be of value to scientists at a number of dispersed oceanographic institutes, more than could be provided instruments of the same type. The cost and complexity of the instruments would be such that it would be more sensible for scientists to travel to them and ship samples to them than for many or even several instruments to be provided.

3. Precedents: There are many cooperative instrumentation centers in the American scientific community which provide models for the development of CICOR's. Activities of the physics community with respect to particle accelerators, of astronomers with respect to large telescopes and radio arrays, and of oceanographers with respect to operation of the UNOLS

fleet are familiar to everyone. There are smaller, more germane, examples. A consortium of astronomers at midwestern universities established the "Committee on Institutional Cooperation" in the late 1970's and developed a shared facility for astronomical data reduction and analysis. They acquired and operate a variety of image analysis equipment on a cooperative basis at a site in Madison, Wisconsin. There are already examples in oceanography. A shared facility for development of applications of automated cell sorting in biological oceanography has been established with NSF funding at the Bigelow Laboratory for Ocean Sciences. Participating scientists are located in all parts of the country. The Scripps Institution of Oceanography has been making its facility for reception, analysis, and interpretation of satellite imagery available to a wide range of oceanographers on a fee bases to the enormous benefit of the oceanographic community as a whole. The committee can learn a great deal about specific problems and administrative methods from these pioneering efforts.

4. Procedure: The UNOLS Committee on Specialized Laboratory Facilities for Oceanographic Research will meet in the summer of 1983 to prepare a proposal for establishment in the National Science Foundation of a program for Cooperative Instrumentation Centers for Oceanographic Research. This proposal will detail the promise of CICOR's, specific guidelines for development of individual CICOR's, and a variety of possible administrative modes for CICOR's. The committee will address sources of funds to support CICOR's, roles of government agencies other that NSF, and completely different sorts of initiatives for improved instrument capability in oceanography.