

# UNIVERSITY - NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

## ADVISORY COUNCIL MEETING

University of California, Santa Barbara  
Santa Barbara, California

Minutes of Meeting, January 21, 22, 23, 1985

Advisory Council members, and representatives from the National Science Foundation, Office of Naval Research and the U.S. Geological Survey met at the Marine Sciences Institute, University of California, Santa Barbara, Santa Barbara, California. The meeting was called to order at 8:30 a.m. by Chairman Charles B. Miller.

### Attendees

#### Advisory Council

Charles B. Miller, Chairman  
Robertson P. Dinsmore  
Donn S. Gorsline  
Carl Lorenzen  
Thomas C. Malone  
Arthur E. Maxwell  
Bruce Robison  
Ferris Webster, *ex-officio*  
Robert W. Corell, *ex-officio*

#### Observers

Larry Clark, NSF  
Grant Gross, NSF  
Sandra Toye, NSF  
Keith Kaulum, ONR  
Robert Rowland, USGS

#### UNOLS Office

William D. Barbee









Except as noted, the Agenda (Appendix I) was followed.

*Accept minutes of October 24, 1984 Advisory Council meeting.* The Advisory Council accepted the minutes of their October 24, 1984 meeting.

#### *Advisory Council Standing Roles*

*Fleet efficiency and effectiveness.* The Council reviewed summaries of Cruise Assessment Reports for cruises made during the third quarter, 1984. Reports received were, generally, well prepared. Various casualties were reported, some of which had significant impact on individual cruises or schedules. The reports reflect excellent staffing throughout the fleet. *The Advisory Council directed that those few ships (or institutions) for which reports are not being received be strongly requested to submit them.*

*Specialized Instruments Facilities.* The Council discussed specialized instrumentation facilities in the context of their earlier recommendation to UNOLS to establish a UNOLS Special Facilities Committee (see report of UNOLS Semi-Annual Meeting, October 24, 1984). It was noted that this Council recommendation to UNOLS had been tabled, pending clarification of UNOLS Committee roles *vis a vis* roles of the Brian Lewis subcommittee established under the Advisory Committee to the Ocean Sciences Division, NSF. Discussions had been held among Charles Miller, Robert Corell and Brian Lewis that led to a communications link between the OEC Committee subcommittee under Lewis and the Advisory Council. The OCE Subcommittee is examining the status of various facilities, and developing candidates for national oceanographic facility status. They should complete that work in about May (but after the UNOLS Semi-Annual meeting). The sense of the Advisory Council was that there should be a standing UNOLS Committee on Specialized Oceanographic Facilities, but that its formation should await a report from the group within OCE's Advisory Committee.

*The Advisory Council directed that circulation for UNOLS Member action of their recommendation to form a Special Facilities Committee be further deferred pending developments within the Advisory Committee to Ocean Sciences Division.*

Donn Gorsline, who had earlier attended a NOAA workshop on the National Ocean Service Exclusive Economic Zone Survey Program discussed the program and workshop. The workshop was to review and to assist in completing plans for a program of systematic surveys by NOS of the EEZ. Generally, reviewers endorsed plans for bathymetric surveys (based on SWATH mapping) but were not enthusiastic about single-channel or other seismic coverage. NOS also suggested the establishment of an EEZ Research Center (at Colorado School of Mines). Although such a center might be interesting, and worthwhile by the time the workshop concluded it seemed unlikely that one would be established.

*Fleet Replacement Committee Report.* Bob Dinsmore reported on FRC actions as general information and as they would pertain to the Council review of fleet management and composition. He provided a schedule of events for the UNOLS Fleet Replacement Process, a summary of ship replacement design studies, a UNOLS zero base fleet replacement schedule and profiles from several University of Texas conceptual designs (all in Appendix II).



The fleet replacement schedule has the WHOI/NECOR SWATH conceptual design completed and a LDGO/NECOR conceptual design for a MG&G ship commencing in January. Events would proceed through SWATH evaluation inspections of the KAIMALINO and Japanese ship, completion of several more conceptual design studies, conversion designs, model tests, etc., through formulation and community review of ship requirements, design studies and a replacement plan. In June, a final draft will be ready of the Committee's report of Requirements and Plan for Research Fleet Replacement. Completion of the first phase of the fleet replacement process will be followed by preliminary design studies for one or more replacement ships. (See Appendix II for details of this schedule.)

Scientific mission requirements for Large High Endurance and Medium Endurance General Purpose Oceanographic Research Ships were distributed (Appended to UNOLS Semi-Annual Meeting Report, October, 1984).

*The Advisory Council commended Captain Dinsmore and the Fleet Replacement Committee for their excellent efforts.*

*Regional Ship Scheduling Meetings:* Bruce Robison reported on the October ship scheduling meetings and prompted a general discussion of the efficacy of the UNOLS scheduling process. Scheduling meetings during 1984 (for 1985 schedules) were characterized as less effective than they should be. One major problem is that ships with weak schedules (e.g., too few days or based on uncertain proposals) are not effectively addressed.

*ALVIN/UNEPC Workshops.* Robert Corell reported on the planning workshops for ALVIN/ATLANTIS II and expeditionary investigations held in San Francisco on December 2-7, 1984.

*A workshop to gain planning information for ALVIN-ATLANTIS II operations in 1986, 1987 and 1988 was held in San Francisco on December 2, 1984. (The Summary Report for this workshop is being distributed separately.)* A briefing was made to potential investigators and the ARC on the 1984 ALVIN/AII season by Barrie Walden. The season was very successful, operationally and scientifically. However, realistic projections into 1985 are that the ALVIN group should have more staff and that due to the large number of dives, especially the number to depths greater than 3000 meters, the ALVIN should have a major overhaul before undertaking work in the Western Pacific (late 1985 or early 1986).

Based on notices of intent, the ARC sees strong interest in using ALVIN throughout the Pacific and in the northwest Atlantic. Specific areas of interest include: EPR/Galapagos/E. Pacific Seamounts, Panama Basin, Guaymas Basin, California Basins, Gorda-Juan de Fuca, Hawaiian Islands and Mariana region in the Pacific, and west Florida Escarpment, Blake Plateau and northwestern part in the Atlantic.

The ALVIN Review Committee, in consideration of both the need to schedule an ALVIN overhaul and interest as expressed by potential investigators made recommendations to curtail Pacific operations late in 1985 to return to Woods Hole for overhaul. Subsequently, it was decided to curtail operations in October. The modified recommendations are:

- complete 1985 schedule for ALVIN through work scheduled near the Galapagos in September-October,
- return to Woods Hole to conduct a full overhaul of ALVIN,
- conduct a modest deep diving program in the Atlantic in the middle of 1986, and
- conduct an expanded diving program in the Pacific (both eastern and western) in late 1986 through 1987.

The Committee reaffirms its earlier recommendations for several projects in the Mariana region, but must recommend that they be deferred until 1987.

The program for 1988 is open.

A UNEPC workshop on Federal ocean program directions was held on December 7, at the close of AGU/ASLO meetings. The workshop centered around presentations by Federal program managers and coordinators on their current plans and projections that might entail expeditionary use of UNOLS ships in 1986 and beyond. Presentations were made by:

Dr. Alan Weinstein  
 Director,  
 Ocean Science Division  
 Office of Naval Research

Dr. J. M. Mekisic  
 Ocean Acoustics  
 Geophysical Sciences Division  
 Office of Naval Research

Dr. Worth Nowlin  
 Co-Chairman  
 U.S. Scientific Steering  
 Committee for  
 WOCE

Dr. Garrett Brass  
 Ocean Drilling Program  
 OFSC  
 National Science Foundation

Dr. Joe Curray  
 Panel Chairman,  
 Indian Ocean Panel  
 Ocean Drilling

Dr. Peter Hacker  
 U.S. TOGA Project Office  
 National Oceanic and  
 Atmospheric Administration

Dr. Peter Niller  
 Scripps  
 TROPIC HEAT

Dr. Arnold Gordon  
 Lamont-Doherty Geological  
 Observatory  
 Transient Tracers (TTO)

Dr. Eli Silver  
 Panel Chairman  
 Western Pacific Panel  
 Ocean Drilling

Dr. Peter Wilkness\*  
 Director,  
 Division of Polar Programs  
 \*letter to Chairman, UNEPC

Attendance at the workshop was disappointing. Nevertheless, useful information was provided on ocean research program direction over the next several years together with cogent (but tentative) projects for UNOLS ship use. (Information is in Summary Report of UNOLS National Expeditionary Planning Committee Workshop, December 7, 1984 which has been distributed separately.)



*Communications - Donn Gorsline reported that UNOLS NEWS, Vol. 2, No. 1, would be published in February. The Advisory Council, by request, considered arrangements for a new editor for the UNOLS NEWS. Thomas C. Malone, University of Maryland and Advisory Council member agreed to serve as editor for issues after Vol. 2, No. 1.*

Donn Gorsline suggested that UNOLS NEWS has, so far, been well received and is successful, but that further improvement will probably require establishing an orderly publication schedule. He suggests that explicit dates be established for submission deadlines and publication, four times per year. The Advisory Council agreed, and asked Tom Malone to select the dates after consultation with the executive secretary so that the publication dates would fit well with the annual cycle of UNOLS activities.

*Applications for UNOLS Associate Membership. The Council had received two applications for Associate Membership in UNOLS, for Sea Education Association, Woods Hole, MA., and from the University of Wisconsin-Superior, Superior, WI. After reviewing each of the applications the Advisory Council recommended that the Sea Education Association and the University of Wisconsin-Superior become Associate Members. These recommendations will be made at the UNOLS meeting in May, 1985.*

*International restriction to ocean science - Robert Corell reported on the International Restrictitons to Ocean Science Committee (IROSC) in the absence of Chairman Harris B. Stewart, Jr. A request was introduced from the Director, W.H.O.I. for Advisory Council comment on a proposed Center for International Marine Science Cooperation. It was noted that such a center had been earlier discussed by the Advisory Council, presented to UNOLS and referred to IROSC for study and detailed recommendations. IROSC had not yet completed their study or made recommendations. The Council was concerned that they did not yet have enough particulars concerning the potential UNOLS role in the suggested international cooperation and that a legislative approach to the establishment of a center was not appropriate where potential sponsoring agencies and appropriate peer-review processes already exist.*

The Advisory Council statement on establishment of an Office for International Marine Science Cooperation:

The new jurisdictional arrangements that have evolved from the marine scientific research issues of the Law of the Sea and related nation-state actions have been a concern of UNOLS, and its Advisory Council. The Council thus established the International Restrictions on Ocean Science Committee (IROSC). During the past year or so, the IROSC, the Advisory Council, and the UNOLS membership have encouraged the development of improved protocols and clearance procedures to facilitate marine science research within the 200 (or other limits of jurisdiction) miles of national states and to foster international cooperation in the marine sciences.

The Council has reviewed the previous recommendations regarding the establishment of some kind of office for international marine science cooperation. It has also reviewed the testimony of Dr. David A. Ross to the Subcommittee on Oceanography on 26 September 1984, and draft legislation that has been prepared by Congressional staff. As a result of this review, the Council wishes to record its position on an international office and on possible legislative actions.



The Council is not in favor of establishing a Center for International Marine Science Cooperation at the Woods Hole Oceanographic Institution at this time. It is premature to establish a center or to name a specific institution before a clear need for any center or office is defined. The Council is concerned that a new office not duplicate existing institutions or add another layer of bureaucracy or procedure unless a clear benefit can be demonstrated. Furthermore, the proposed terms of reference (in the draft legislation or in Dr. Ross' testimony) need to be reviewed in detail by involved marine scientists (such as IROSC). Finally, no specific host institution should be named before there is an opportunity for a peer-review choice among all interested marine science institutions.

The Council requests IROSC to review and report back to the Council on:

1. Continued need for an international marine science cooperation office, either as a separate entity, or within the existing UNOLS structure.
2. If the IROSC still considers that an office is needed, to advise on:
  - a. possible terms of reference
  - b. procedures to be used to establish such an office.

The Council also wishes to record its opposition to a legislative approach to establishing specific marine science institutions and procedures when suitable agencies and peer-review mechanisms already exist. They can be used, following established due process, to create any needed new institutions, offices, or procedures. The Council is thus opposed to the draft legislation that they reviewed.

Ferris Webster spoke to discussions that he had had with William Erb, Department of State, concerning suggested revisions to Notices to Research Vessel Operators on procedures for clearance requests and on post cruise obligations. Revisions would have shifted nearly all the ones for the obligations to the institution operating the ship in question (from the chief scientist where it now lays). Such revision was deemed objectionable, since, in the case of chief scientists from other institutions, there is no leverage to force fulfillment of obligations. The Council directed that the proposed revisions be brought to the attention of all UNOLS Members. Ferris Webster will continue to work with William Erb on satisfactory revisions.

*UNOLS Nominations.* UNOLS Chairman Webster discussed with the Council his pending appointment of a nominating committee for UNOLS officers. Expiring terms are:

UNOLS Chair  
UNOLS Vice Chair

Advisory Council-Member representation  
Advisory Council-Associate representation

He noted his criteria for selecting a nominating committee: To provide representation for all of UNOLS, and to assure that committee members would be knowledgeable about UNOLS and its activities. He noted his tentative selections, which the Advisory Council endorsed.

*UNOLS Chairman's Activities:* Ferris Webster noted for the Council several recent activities he had undertaken (as Chairman).

At a recent FOFCC meeting (attended as UNOLS observer) their Coordinating Board had expressed interest in UNOLS efforts toward long range planning. He had described UNEPC, its charge and activities to date, and offered UNOLS' and UNEPC's cooperation in FOFCC long range planning for ship schedules.

After Dr. Webster's September, 1984 testimony to the Oceanography Subcommittee, House Merchant Marine and Fisheries Committee, he was invited by Congressman Joe Pritchard to provide additional information (see Minutes of October, 1984 Advisory Council meeting). His response included information on 1967-1985 Federal funding for oceanographic research. His data were extracted mainly from *Federal Marine Science Budget Summary, Fiscal years 1975-1985* by the Subcommittee on Marine Research, Committee on Atmosphere and Oceans, Federal Coordinating Council for Science, Engineering, and Technology (December, 1984). (A table of these funding trends appears in UNOLS NEWS, Vol. 2, No. 1.).

*Special Workshops.* The Council discussed a number of areas of technology development, means of using these developments to advance ocean science and the potential utility of UNOLS sponsored workshops to focus on specific new developments.

Bruce Robison discussed current efforts to use submersibles in midwater biological investigations, citing efforts at Harbor Branch, UCSB and WHOI, among others. He urged the Advisory Council to support a workshop on the midwater use of submersibles in biological investigations. The workshop would help develop a new approach to biological oceanography, and focus on use of midwater submersibles for new modes of sampling and observation. The Council endorsed the workshop concept with reservations pending the development of an agenda, definition of scope and of participants.

The Advisory Council agreed to form an ad hoc committee on in situ midwater research. This committee is asked to explore the existing strong interest within the marine science community in a workshop to (1) document the available technology, (2) formulate a national plan to encourage these applications, including the funding thereof, and (3) promote the associated development of new kinds of data acquisition and analysis.

Bruce Robison agreed to head in forming the committee.

The Council next considered a letter from Dolly Dieter, Chairman, RVOC, describing RVOC discussions on shared use equipment, and their continuing interest in studies or workshops on shared use equipment and shipboard technician programs (Appendix III).

Larry Clark, NSF/OFS, supported a meeting on shipboard technicians and provided information on OFS support of the marine technician program (Appendix IV).

The Council agreed that Charles Miller, coordinating with Larry Clark, would organize an agenda and invite UNOLS Member Institutions to participate in a meeting to be held during the week of May UNOLS meetings, in Washington,



D.C. William Hahn, University of Rhode Island will be asked to convene the meeting.

The Council briefly discussed an invitation for UNOLS to join the Radio Technical Commission for Maritime Services (RTCM). They suggested that it would be appropriate if UNOLS could join as an association of Member Institutions.

*Sponsoring agency information to the Advisory Council.*

*Both Sandra Toye, OFS and Grant Gross, OCE provided status information from NSF.*

The pending re-organization of the Ocean Sciences Division has been essentially approved (but not yet announced). The Oceanographic Facilities Support Section (OFS) will become the Oceanographic Centers and Facilities Support Section (OCFS). It will include traditional activities from OFS and the Ocean Drilling Program. The Ocean Sciences Research Section is being reorganized to include four oceanography discipline programs from the current eight. On final approval, re-organization will be announced by NSF.

The budget for fiscal year 1986 remains restricted pending its delivery to Congress by the President. Expectations are for essentially level funding. Planning boundaries are, at best, an increase to offset inflation, and, at worst, an appropriation equal to that for 1985 (that would require costs due to inflation be absorbed).

The success ratio of science proposals received over the last year declined. The decline, together with the deferral of some science program decisions impacted on ship scheduling. It should be noted that numbers of program personnel have been reduced in OCE (and throughout NSF). Further personnel consideration can be expected from the Administration. Depending on the degree of consolidation, NSF (and OCE) could advance dates for proposal submissions.

The Ocean Drilling Program (ODP) has settled down. International cooperation (and support) has grown, and there are still hopes that the European Science Foundation and Australia will become participants. ODP has established a level of support for U.S. science participants. Conversion of the JOIDES RESOLUTION for program use is very successful and fully satisfactory. The shakedown has been successful, albeit with typical shakedown problems. Laboratories are outstanding.

National Science Foundation is named the lead agency for Arctic research in the Arctic Research Act of 1984. This could provide impetus for a stronger ocean research program in the Arctic, and perhaps for a polar research vessel.

The POLAR DUKE, HERO replacement for Antarctic support, is a very capable vessel, anticipated to support a significant portion of Antarctic ocean research.

Under the U.S.-French Bilateral, one French scientist has been accommodated for one month on the CONRAD; we have 45 days on a French vessel in the Mediterranean.



The Advisory Committee to the Ocean Sciences Division (Robert Corell, Chair, Brian Lewis, Vice Chair) has addressed both oversight and long range planning functions. Their long range planning document should be available in May. *OCE is interested in negotiating with the Advisory Council and with UNOLS on potential roles for UNOLS concerning the facilities aspects of the long range plan. In addition to ships and platforms, facilities issues could include satellites, satellite data facilities, telecommunications and supercomputers.*

Although 1985 is not a bad budget year for OCE (or for NSF) substantial ship layups will occur, approximately 2 1/2 ship years. These layups occur because funded science projects do not require full use of the UNOLS fleet. Sandra Toye urged that future layups be identified as early as possible in the UNOLS ship scheduling process, so that an effective overall plan can be devised rather than resorting to an untimely, piecemeal approach (that may be costly and disruptive). Ships laid up in 1985 may include: ISELIN, full year, VELERO IV, part year, KNORR, part year and possibly MOANA WAVE, part year, depending on other agency funding decisions.

The Council then discussed among themselves and exchanged with agency officials concerns and problems with fleet management and scheduling. Issues included: need for more direct management control, lack of incentive to cut costs, and the current crisis mode of management.

*Keith Kaulum's report from ONR dealt mostly with the Secretary of the Navy's initiatives, especially those for ship construction. Plans are progressing toward building the first research ship, probably a SWATH. The work done by UNOLS Fleet Replacement Committee has been valuable. As planning and design progress, the design exercise becomes more and more the Navy's.*

Planning also continues on a construction program to meet the future research vessel needs of Navy oceanography, both ONR support of the academic (UNOLS) fleet and the pool ships operated by and for the Oceanographer of the Navy. A tentative set of dates has been agreed to that would replace the three AGORS in the UNOLS fleet (CONRAD, THOMAS G. THOMPSON and THOMAS WASHINGTON) in about 1989-94 and the three operated by the Oceanographer slightly later. The Navy wants a common hull design, and the FRC's *Medium Endurance General Purpose Oceanographic Research Ship* could be the result. The construction plan would also re-engine and modify the MELVILLE and KNORR.

There is not yet formal coordination between the Navy and NSF on an academic fleet construction program. ONR will want UNOLS recommendations on a fleet replacement schedule -- what ships to which institutions, when.

A working group organized by the ALVIN Review Committee provided to ONR a preliminary plan for enhancing the use of Navy-operated submersibles for research investigations. The ARC plan was passed on verbatim to the Secretary of the Navy. A plan has been approved that would devote 60 days per year (SEA CLIFF/TURTLE) time to research investigations, provide for a science support group, and would include a major, coordinated research project using SEA CLIFF capabilities to 6000 meters.

*Robert Rowland reported on USGS ocean activities in 1984, 1985 and, tentatively, 1986. Increase for 1984, 1985 and possibly 1986 in the USGS'*



marine programs are all essentially effected in their EEZ program. The principal new activity is GLORIA surveys. The West Coast EEZ was completed in 1984, and in 1985 will cover Gulf of Mexico, Puerto Rico and Virgin Island zones. GLORIA data will be processed both in the United Kingdom and by USGS at Flagstaff. Other USGS work in 1984 included ALVIN dives (Gorda-Juan de Fuca) and geological/geophysical investigations from the Southern Pacific to Nova Scotia. In 1985 some investigations are scheduled for the Gorda-Juan de Fuca system. Additional gravity surveys will be conducted for the Defense Mapping Agency in 1985.

The USGS actively supports the CENCAL consortium and the OSPREY conversion. They have program need for a vessel such as the OSPREY.

*NOAA did not have an agency representative, but provided information to the Council.* Ship operations in 1985 may be curtailed somewhat in order to absorb some retroactive and current increases in personnel costs. No additional ships will be laid up in 1985.

The Administration budget for NOAA's FY-1986 ship operations was also discussed.

The EEZ Survey workshop held by NOAA/NOS in December, 1984 had been discussed earlier by the Council. (The Workshop report is available in February, 1985.) A classification issue has been raised by the Department of Defense concerning data from these proposed EEZ surveys.

*Fleet Management.* The remainder of the meeting was devoted to drafting a review and update of the Advisory Council report: *Composition, Distribution and Management of the UNOLS Fleet (1982 and 1983)*. Sources of input included:

- ship use statistics through 1984
- ship use projection for 1985 (from tentative schedules and current projections from NSF, ONR and others.)
- information on fleet replacement plans (from FRC chairman)
- material and operational condition of fleet (from Navy INSURV and NSF ship inspection programs)
- NSF, ONR and other agency projections for 1986 ship use, and
- operational effectiveness (from cruise assessment summaries).

The Council discussed this information base, defined issues for the 1985 review, and prepared a provisional draft report. (This provisional draft, together with some additional information on ship use in 1984 and projected for 1985 was to be refined by Chairman Miller, circulated to Council members for their comments or endorsement and the refined draft distributed to UNOLS Members prior to the May UNOLS meeting. After incorporating, as appropriate, remarks from UNOLS Members, the final report will be delivered to UNOLS and sponsoring agencies in June, 1985.)

*The meeting was adjourned at 11:30 a.m. on January 23, 1985.*



## UNOLS Advisory Council

## Agenda for Meeting

8:30 a.m., January 21, 22, 23, 1985

University of California, Santa Barbara, California

- ACCEPT MINUTES OF OCTOBER 24, 1984 MEETING
- STATUS REPORTS, STANDING ROLES
  - Fleet Efficiency and Effectiveness - Carl Lorenzen  
(Review third quarter cruise assessments)
  - Specialized Instrumentation Facilities - C. Miller  
(Can bring Council up to date on the resolution of October 28)
  - Fleet Replacement Committee Report - R. Dinsmore  
(They will have another meeting in mid January)
  - Regional Ship Scheduling Groups - B. Robison  
(Brief report on 1985 schedules)
  - UNEPC/ALVIN Planning Workshops - R. Corell  
(Workshops held Dec. 2 and 7 in San Francisco)
  - Communications - D. Gorsline  
(Next UNOLS News Issue)
- UNOLS MEMBERSHIP - Two applications for Associate Membership - SEAS and Center for Lake Superior Environmental Studies, University of Wisconsin.
- UNOLS NOMINATIONS - Three person nominating committee to be appointed by UNOLS Chairman. Discussion.

## Expiring Terms:

UNOLS Chairman	Ferris Webster
UNOLS Vice Chairman	Robert Corell
Advisory Council	Donn Gorsline (Member Institution)
	Bruce Robison (Associate Institution)

--- 10:30 BREAK ---

- SPONSORING AGENCY INFORMATION TO ADVISORY COUNCIL
  - Sandra Toye, NSF
  - Keith Kaulum, ONR
  - Richard Alderman, NOAA
  - Robert Rowland, USGS
- MARINE TECHNICIAN PROGRAM ISSUES - Larry Clark, NSF
- FLEET MANAGEMENT - Update of Report, Composition, Distribution and Management of UNOLS Fleet. To be addressed by the Council as a whole, under Chairman Miller. This item should take most of the meeting. Sequence: formulate a charge, address the issues, draft the report. Sources of input will include
  - Ship use statistics through 1984
  - Ship use projection for 1985 (from tentative schedules)
  - Fleet Replacement Committee - R. Dinsmore
  - NSF perspective - Sandra Toye
  - ONR/Navy perspective - Keith Kaulum
  - USGS, NOAA input - R. Alderman, R. Rowland
- Adjourn



## SCHEDULE OF EVENTS FOR UNOLS FLEET REPLACEMENT PROCESS

1985

- January
- . WHOI/NECOR Swath conceptual design completed.
  - . FRC Meets (16-17 Jan)
  - . Commence LDGO/NECOR conceptual design: MG&G Ship
- February
- . KAIMALINO Test Project for SWATH evaluation (1-14 Feb)
  - . Inspection & cruise on Japanese SWATH Ship SSC KAIYO.
  - . Complete WHOI/NECOR Large R/V conceptual design study.
  - . Commence conceptual design studies: two medium size monohull general purpose R/V's.
  - . Complete "Conversion" Designs: two Univ. Texas monohull and one SWATH ship (originally G&G designs)
- March
- . Model tank tests: Three comparative Designs (2 SWATH & one monohull)
  - . First Draft Report of Requirements and Plan for Ship Replacement
  - . Complete LDGO/NECOR conceptual design: MG&G Ship.
  - . FRC Meets (21-22 March: Austin, TX)
  - . Univ. Texas Workshop for Prelim. Design of G&G Ship.
  - . Commence conceptual design study: Coastal SWATH
- April
- . Complete conceptual design studies: two medium size monohull general purpose R/V's.
  - . Second Draft Report of Requirements and Plan for Ship Replacement.
  - . Institutional and Regional Meetings for reviews of ship requirements, design studies, and replacement plan: Seven sites.
- May
- . Complete conceptual design study: Coastal SWATH
  - . Third Draft Report of Requirements and Plan for Ship Replacement.
  - . Community Wide Workshop for review of ship requirements, design studies and replacement plan. Recommendations for proceeding on next phases of Plan.
- June
- . Final Draft of Report of Requirements and Plan for Research Fleet Replacement.
  - . Commence Preliminary Design Study for one or more replacement ships.



## SUMMARY OF UNOLS SHIP REPLACEMENT DESIGN STUDIES

<u>Type</u>	<u>Design</u>	<u>Status</u>
High Endurance	Large; 260-300 ft.; Monohull	<ul style="list-style-type: none"> <li>a) One conceptual design (WHOI/NECOR) underway by J. Leiby</li> <li>b) Four MG&amp;G conceptual designs completed by Univ. Texas. Two are planned to be modified for general purpose applications</li> <li>c) UNOLS FRC may want 1-2 additional conceptual designs if (b) above not productive</li> </ul>
High Performance	SWATH; 200-220 Ft.	<ul style="list-style-type: none"> <li>a) One conceptual design (WHOI/NECOR) completed by SSS Co. (T. Lang)</li> <li>b) One MG&amp;G conceptual design completed by Univ. Texas (Blue Sea McLure) planned to be modified for general purpose applications</li> <li>c) Comparative model tests planned for (a) and (b) above</li> <li>d) Navy Tentative Operational Requirement (TOR) for AGX developing in parallel fashion. (Probably will become the UNOLS SWATH)</li> </ul>
Medium Endurance	Medium-Large; 210-220; Monohull	<ul style="list-style-type: none"> <li>a) RFP for two conceptual designs being readied for circulation to selected naval architects</li> <li>b) UNOLS FRC considering extent of change to qualify as a G&amp;G type</li> </ul>
Geophysics		<ul style="list-style-type: none"> <li>a) Univ. Texas completed conceptual designs for four monohull and one SWATH. Presently considering preliminary design for one monohull</li> <li>b) LDGO/NECOR commencing conceptual design study for MG&amp;G medium size ship.</li> </ul>
Intermediate SWATH	SWATH; 110-125 ft.; 400-600 tons	<ul style="list-style-type: none"> <li>a) CENCAL has prepared tentative requirements. Bids for conceptual design study being solicited.</li> </ul>



1 December 1984

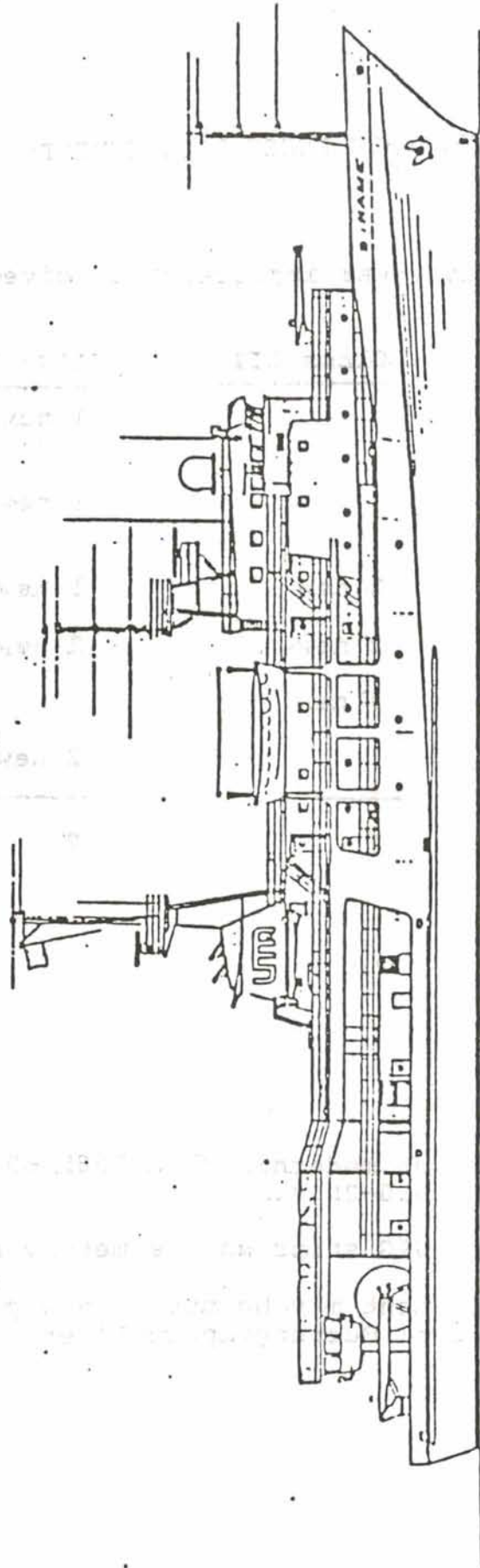
## UNOLS ZERO BASE FLEET REPLACEMENT

Fleet replacement by five-year increments is given by the following table:

<u>Time Frame</u>	<u>Class I &amp; II</u>	<u>Class III</u>	<u>Class IV</u>	<u>Special</u>
1985-89	2 new (modernize 2)		1 new	1 G&G
1990-94	1 new		1 new	1 Polar
1995-1999	1 new	2 new	1 new	1 Sub Hs 1 G&G
2000-2004		2 new	2 new	
2005-2009		3 new		
2010-2014	2 new		2 new	
Total	6	7	7	4

- Notes:
1. Two Class II ships modernized in 1985-89 are same as replacements in 2010-2014.
  2. Requirements for G&G ships may be met by new Class II ships.
  3. Polar R/V requirement may be met by new procurement in other elements of Federal Oceanographic Fleet.





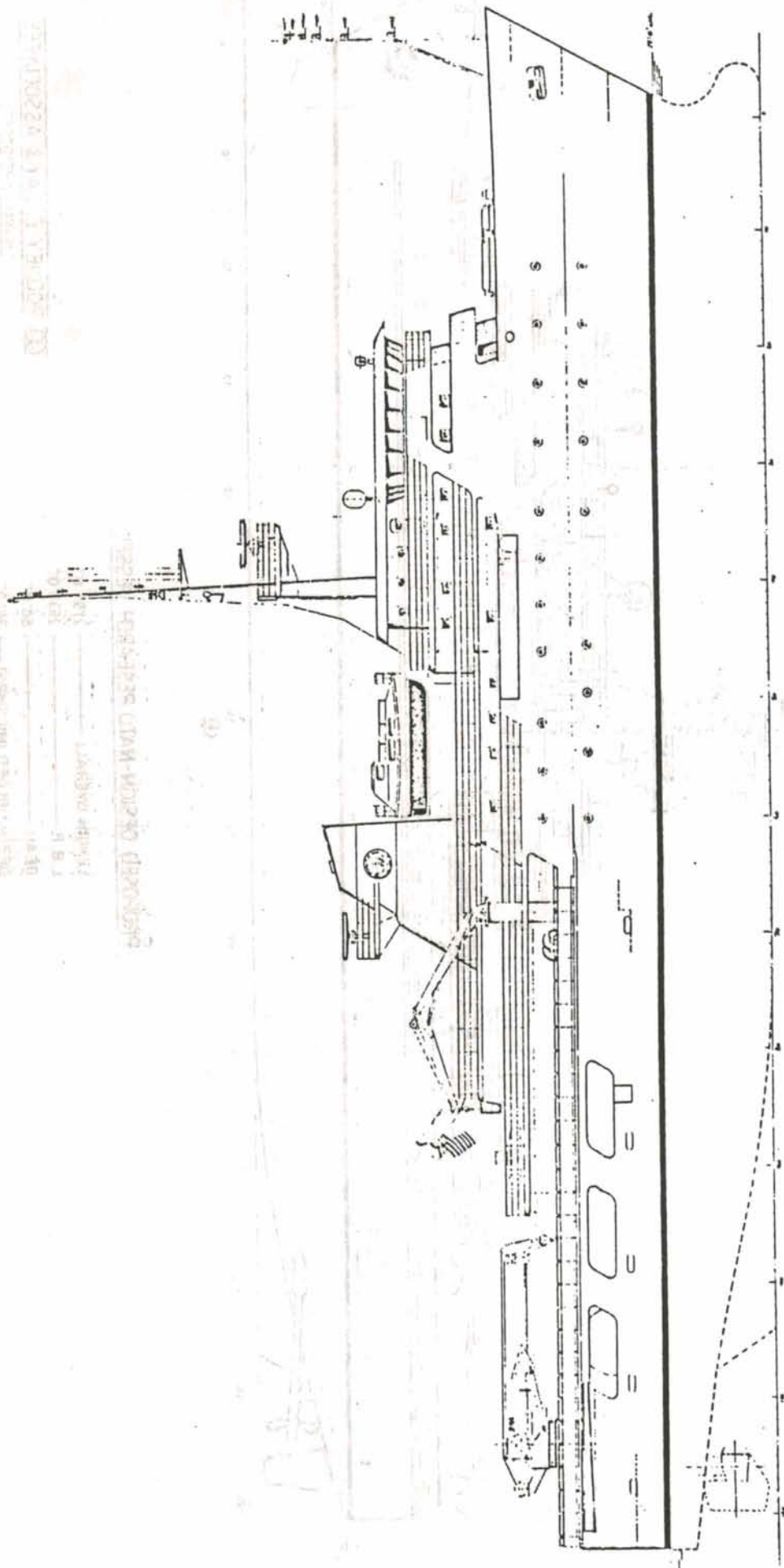
LOA - 267 ft  
LWL - 245 ft  
Disp. - 2,960 tons  
Cruising Speed - 13.5 knots  
Power - 4,800 shp

UNIVERSITY OF TEXAS CONCEPTUAL DESIGN STUDY

Guarino & Cox



Date: 11/11/80  
 Drawn: J. Gilbert  
 Scale: 1" = 100'  
 Project: University of Texas  
 Drawing: Deck Plan  
 Sheet: 1 of 1

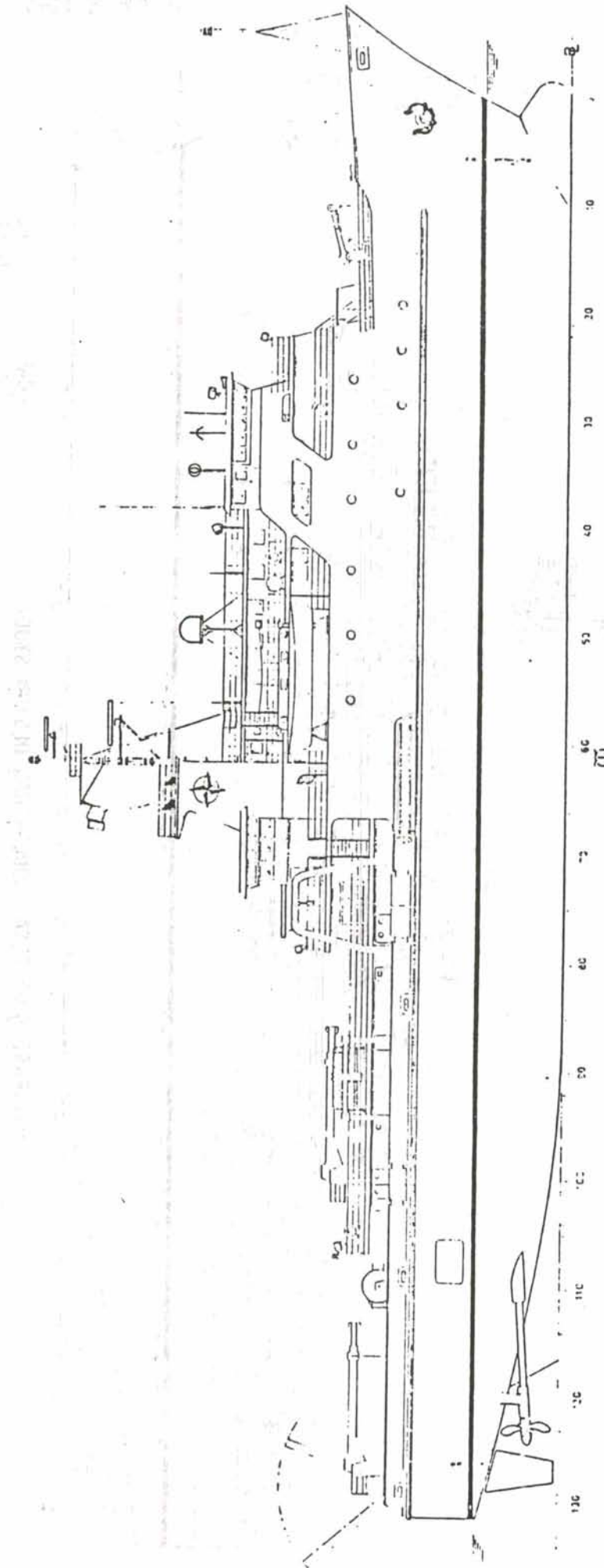


- LOA - 265 ft.
- LWL - 250 ft.
- Disp. - 4,255 tons
- Cruising Speed - 13 knots
- Power - 5,400 shp

UNIVERSITY OF TEXAS CONCEPTUAL DESIGN STUDY  
 John Gilbert & Associates

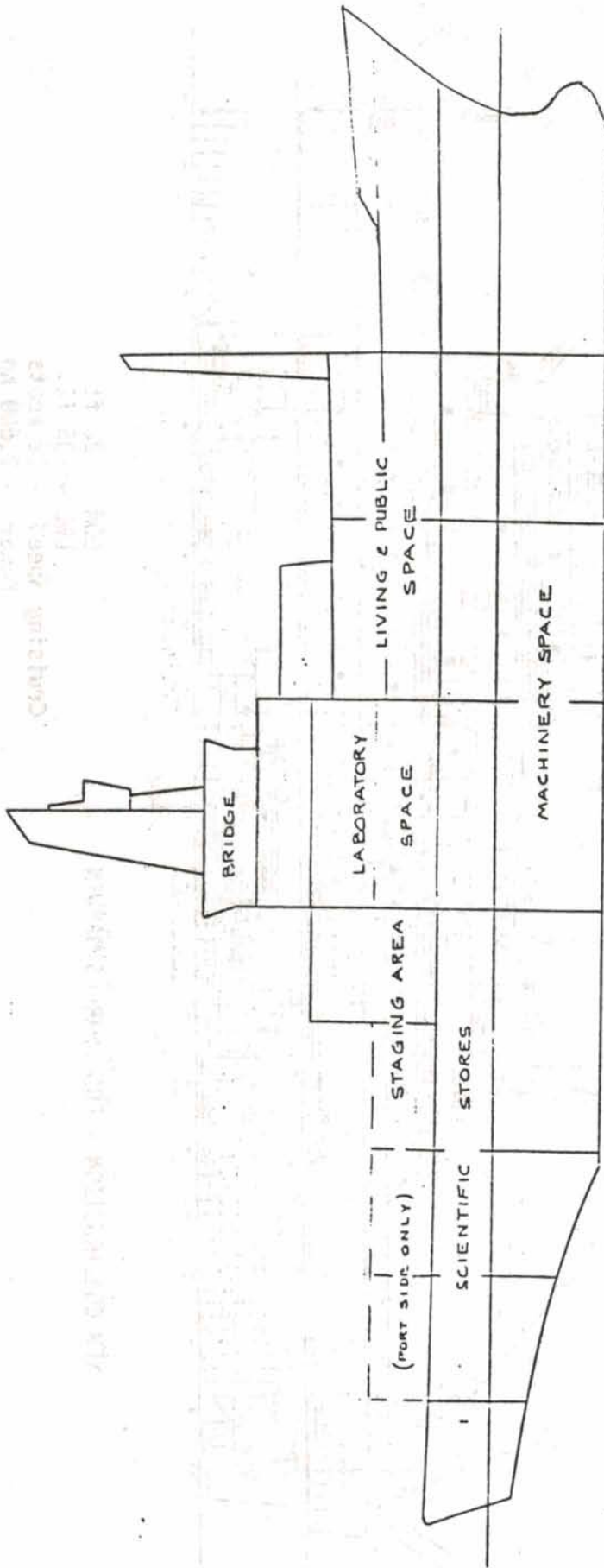


**RODNEY E. LAY & ASSOCIATES**  
 NAVAL ARCHITECTS  
 13891 ATLANTIC BOULEVARD  
 JACKSONVILLE, FLORIDA  
 32225



PROPOSED DESIGN - NATO RESEARCH VESSEL

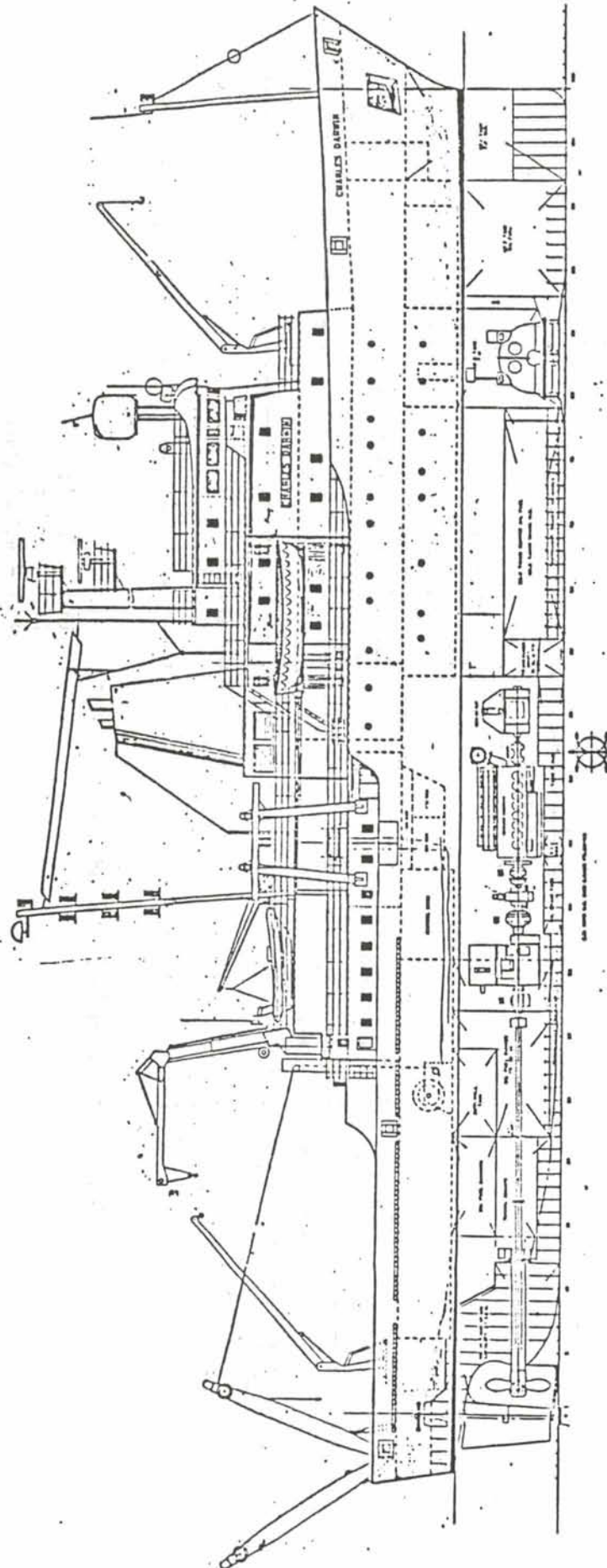
LENGTH OVERALL	279' 0"
L.B.P.	263' 0"
BEAM	50' 0"
DEPTH, MOLDED (MIDSHIPS)	28' 0"
DRAFT, DESIGN FULL LOADED	16' 0"
FULL LOAD DISPLACEMENT	3400 TONS
SHAFT POWER	2 x 2500 HP
BOW/STERN THRUSTERS	2 x 600 HP
TOTAL COMPLEMENT	40 PERSONS
RANGE AT 12 KNOTS	11,000 N.M.



WHOI/NECOR CONCEPTUAL DESIGN STUDY

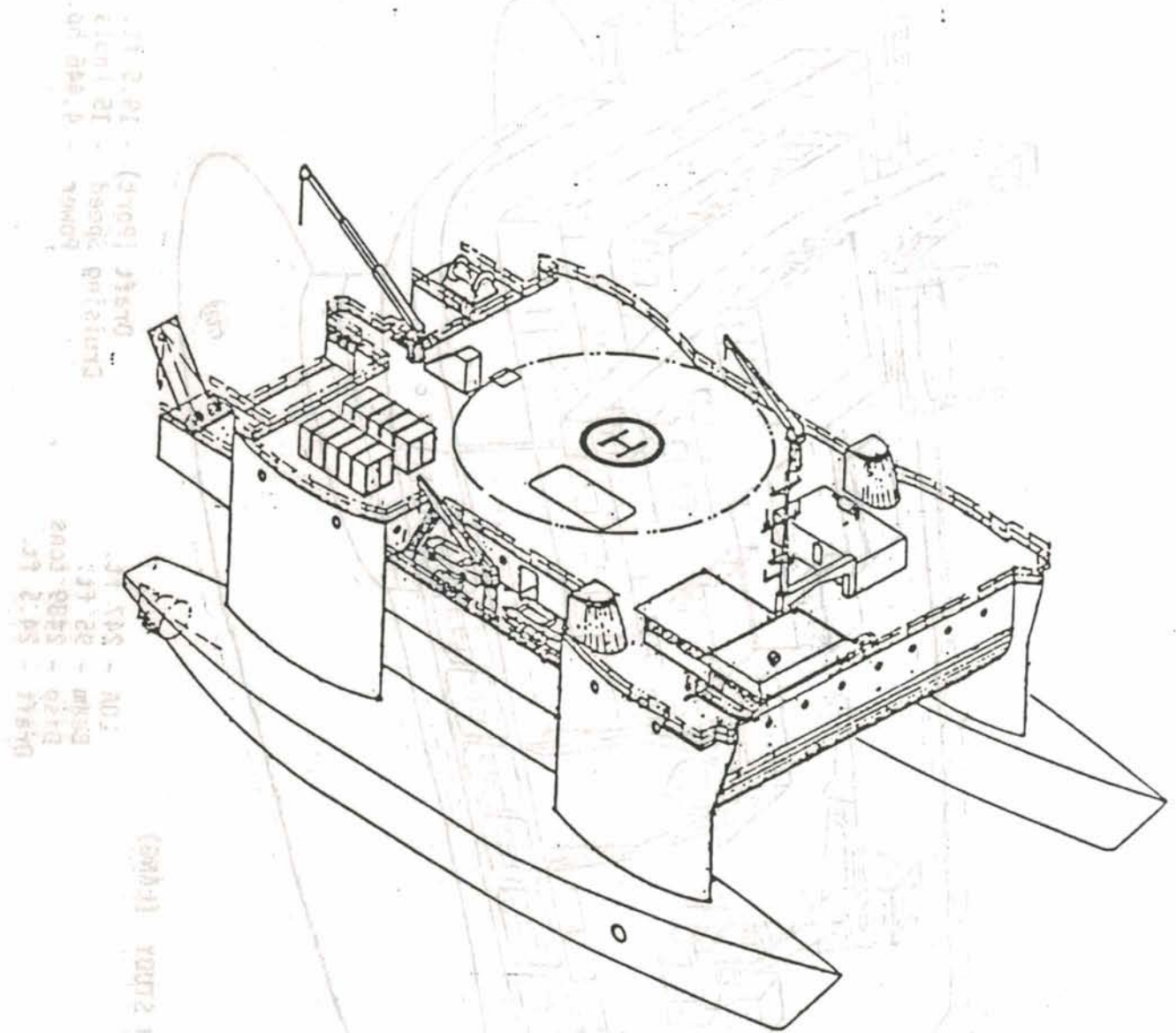
LOA - 280 ft.  
LWL - 260 ft.  
Disp - 4,000 tons  
Cruising Speed - 14 knots  
Power 5,000 hp.





LOA - 228 ft.  
LWL - 205 ft.  
Cruising Speed - 12 knots  
Power - 2,600 hp

NEW CONSTRUCTION - RRS CHARLES DARWIN

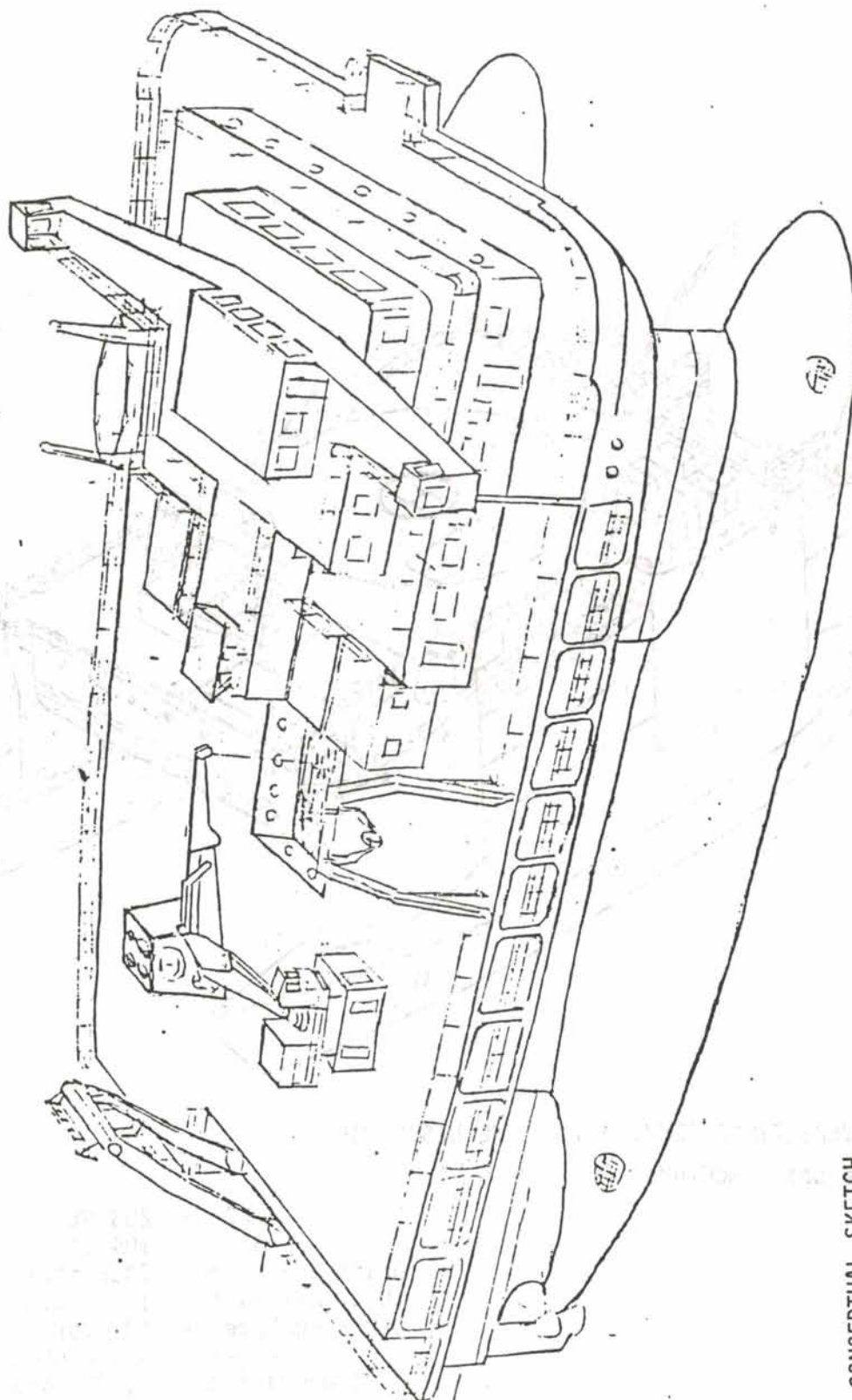


UNIVERSITY OF TEXAS CONCEPTUAL DESIGN STUDY

Blue Sea - McClure

- LOA - 203 ft.
- Beam - 104 ft.
- Draft Operating - 23.5 ft.
- Draft Transit - 12.5 ft.
- Cruising Speed - 12 knots
- Power - 6,000 hp
- Disp. Operating - 3,170 tons
- Disp. Transit - 1,785 tons





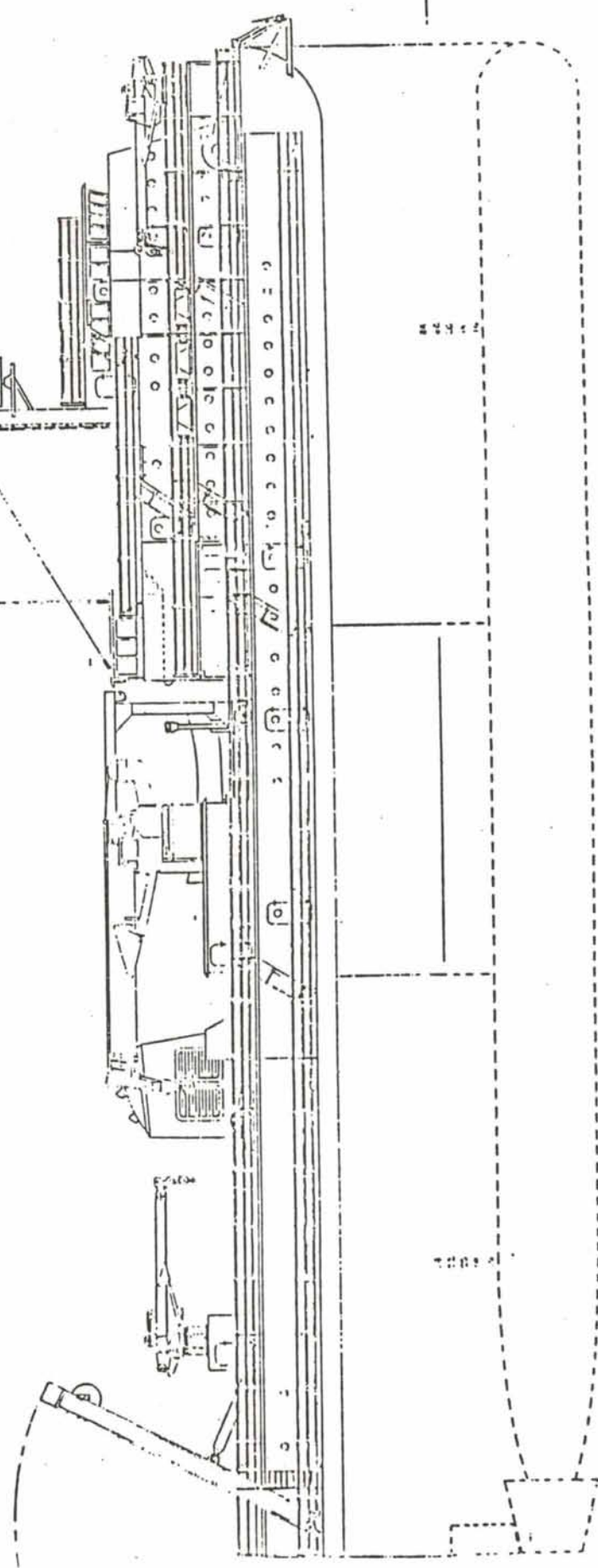
CONCEPTUAL SKETCH  
SSSCO CONCEPTUAL DESIGN STUDY (LANG)

LOA - 247 ft.  
Beam - 95 ft.  
Disp - 2489 tons  
Draft - 24.5 ft.

Draft (Port) - 19.5 ft.  
Cruising Speed - 15 knots  
Power - 4,446 hp.

SSSCO CONCEPTUAL DESIGN STUDY (LANG)

LOA - 247 ft      Draft (Port) - 19.5 ft.  
 Beam - 95 ft.      Cruising Speed - 15 knots  
 Disp - 2489 tons      Power - 4,446 hp.  
 Draft - 24.5 ft



... ..



## RESEARCH VESSEL OPERATORS' COUNCIL

RVOC OFFICE  
University of Alaska  
Institute of Marine Science  
Seward, Alaska 99664

15 January 1985

Charles Miller  
Chairman, UNOLS Advisory Council  
Oregon State University  
School of Oceanography  
Corvallis, Oregon 97331

Dear Charlie:

As I reported at the fall '84 UNOLS meeting, RVOC had an extensive discussion on shared use equipment and the related subject of marine technicians. The discussion ended with a recommendation that at some institutions shared use equipment/marine technicians involve people other than RVOC members and, therefore, an in depth workshop should be scheduled. The workshop should include the person responsible for, or who sets the policy for, the shared use equipment and marine technicians.

The workshop should address such problems as:

- 1) What is shared use equipment?
- 2) Who can use the equipment?
- 3) How are priorities set on shared use equipment?
- 4) Is the equipment available to users of another institution when working on the host research vessel?
- 5) What are the charges?
- 6) Who should be charged?
- 7) Who is responsible for maintenance and maintenance charges?
- 8) Should a marine technician be provided to operate the equipment?
- 9) What charges does the user incur for the marine technician?

Scripps has put some preliminary statistics together on institutional shared use equipment. This could be expanded upon and presented to the institutions prior to a workshop.

Generally speaking, RVOC felt this controversial subject was extremely important and that a workshop to resolve these questions should be conducted in the near future. I believe this was also the feeling of the institution representatives who attended the UNOLS meeting.

Is UNOLS willing to support or conduct such a workshop? What shared use equipment problems does UNOLS feel need to be addressed? Any suggestions as to format?

If you have any suggestions as to the next step, Charlie, or any way RVOC could assist with this, please let me know.

Sincerely,



E. R. Dieter  
Chairman

cc: Sandra D. Toye, Acting Head, Oceanographic Facilities Support Section - NSF  
William Barbee, Executive Secretary - UNOLS



SHIPBOARD TECHNICIAN PROGRAM

	FY81	FY82	FY83	FY84	FY85
no. requests	14	14	15	18	21
Amount requested (\$K)	1,756	2,056	2,367	2,686	3,250
Amount awarded (\$K)	1,375	1,507	1,926	2,200	2,400
OFS total budget (\$K)	27,570				34,683

- FY81 to FY85, technicians budget increased 74.5%; OFS total budget: +25.8%
- FY81, technicians were 5% of OFS total, in FY85, 7% of OFS total
- On overall fleet average, technicians are 10% of ship ops budget.
- Since FY82, tech proposals have been peer reviewed by combination of recent ship users and others who manage similar technician support activities. This has spread information about the Program, and helped improve provided services.
- Budget analysis and review are closely linked to ship ops schedule and budget, yet are managerially separate and becoming more so. Establishment of technical support cost-centers is increasing (9 institutions).

ISSUES

- Type of technical support is changing and becoming more complex, requiring higher paid individuals. This increasing requirement is partially in response to increased instrumentation acquisitions and increased sophistication of shared use equipment and science projects to be supported.
- Shared use instrumentation available to ship users varies from institution to institution as does extent of user fees, if any, for instrument use. Both PIs and technician project directors have expressed concern that they are at a financial disadvantage if they must charge user fees for NSF-provided instrumentation. E.g. CTDs--most all institutions can provide some CTD capability, but user costs and capabilities vary.
- The issue of shipboard computers is complex--some ships need on board systems for navigations/data acquisition, others do not. What are fair charges to the technician programs?
- Several expressions of interest have been made to hold a technician support workshop but a useful agenda and workshop structure is very elusive. It has been suggested that it would be little more than an effort to justify further budget increases at institutions.

SUGGESTED APPROACH

Nearly all technician support managers now attend the UNOLS semi-annual meetings, so it may be useful to hold an open technician forum at the Spring 1985 meeting in Washington. OFS could provide some budgetary back-up material about overall level of support and various management structures. And there could be open discussion to air grievances, make comments and suggestions, and exchange mutually beneficial information. Some firm recommendations may ensue.

Comments and advice from the A/C on this approach would be appreciated.



