UNIVERSITY - NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

UNOLS NEWS

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HIGHLIGHTS

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FLEET REPLACEMENT

The UNOLS Fleet Replacement Committee has developed a draft plan for Research Vessel Replacement and Construction. The proposed plan outlines a schedule of replacement which is based on research requirements by CY 2000. While overall numbers and size-distribution of ships will not differ significantly from the current fleet, changes are anticipated in areas of special capabilities such as geophysics, submersible handling, coastal research and polar research. The committee, chaired by Captain R. P. Dinsmore, is currently conducting regional reviews of this plan and conceptual design studies at oceanographic laboratories across the country.

The ship replacement plan has been modified somewhat and is summarized below:

Ship Replacement Plan Shown by 5-year Increments

Time Frame	LARGE (Over 200 ft.) (200-275 ft.) Classes I & II	INTERMEDIATE (150-199 ft.) Class III	COASTAL (100-149 ft.) Class IV
1985-1989	1 new GP 1 new MG&G modernize two	---	---
1990-1994	1 new GP 1 new MG&G 1 Polar R/V	---	1 new
1995-1999	1 Sub. Handling	2 new	2 new
2000-2004	1 new GP	1 new	2 new
2005-2009	---	3 new	---
2010-2014	2 new GP	---	2 new
Total	9	6	6

Notes:

1. GP signifies general purpose capability.
2. MG&G signifies marine geology and geophysics capability in addition to general purpose.
3. The need for a Polar R/V may be met by new procurement in other elements of Federal Oceanographic Fleet.
4. The two Class II ships modernized in 1985-89 are the same as replacements shown in 2010-14.

Scientific requirements and conceptual designs are currently under review. As part of this review process, the committee has issued a document entitled "Science Mission Requirements for New Oceanographic Ships". To date, science requirements have been developed for eight new vessels as follows:

SHIP CLASS

A. High Endurance General Purpose R/V. Size Range 250-300 ft.

B. Medium Endurance General Purpose R/V. Size Range 200-250 ft.

C. "High Performance" General Purpose R/V. Size Range 200-250 ft. Specified as SWATH Type.

GEOLOGY AND GEOPHYSICS R/V'S
(including multidiscipline capabilities)

D. "MG&G FRIENDLY" Oceanographic Research Ship. Size Range 250 ft.

E. "State of the Art" G&G R/V. Size Range 250 ft.

F. Intermediate Size General Purpose R/V. Size Range 150-200 ft.

G. Coastal Size SWATH Type General Purpose R/V. Size Range 100-150 ft.

H. Coastal Size General Purpose R/V. Size Range 100-150 ft. (to be developed).

J. Polar Research Vessel (to be developed)

K. U.S. Navy Tentative Operational Requirements for a Large Oceanographic Research Vessel. Size Range 250-300 ft.

It is anticipated that the final draft of recommendations for vessel replacement will be completed during spring, 1986.

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SHIP SCHEDULING

The 1986 schedule of UNOLS vessels for 1986 is nearing completion and work on the 1987 schedule is beginning. Researchers who will need shiptime during 1987 should be submitting requests now. In this regard, it is becoming increasingly clear that the research community must begin to formulate research programs at least 2-3 years in advance, especially where facilities such as research vessels are involved.

Finally, the R/V CAPE FLORIDA is scheduled to be moved to the west coast in 1986 where it will operate out of Moss Landing under the auspices of CENCAL, a consortium of central California institutions.

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TIMELY SUBMISSION OF RESEARCH PROPOSALS FOR SHIPBOARD INVESTIGATIONS

Most oceanographers realize that the successful conduct of their at-sea investigations depends on careful advanced planning, and timely completion of critical tasks. In these times of budget strictures and limited funds, ship operations are among those tasks that must have adequate advanced planning. To plan and schedule ship operations, it is essential to have advanced information on science proposal submission and funding. To assure that information is available the Oceanographic Centers and Facilities Support Section of the National Science Foundation's Ocean Sciences Division has issued the following notice. THIS IS IMPORTANT TO INVESTIGATORS WHO HOPE TO RECEIVE SHIP TIME IN SUPPORT OF THEIR OCEAN RESEARCH.

Ocean Sciences Research Proposals Requiring Use of UNOLS Vessels

Since fiscal year 1981, ocean science research proposals involving the use of University-National Oceanographic Laboratory System (UNOLS) ships are required to be submitted in time to be considered at the spring or summer proposal review panel meetings.

This policy remains in effect. In order to facilitate timely decisions on ship schedules and support levels, proposals should be submitted as early in the calendar year as possible particularly for expeditionary field work in remote ocean areas.

The proposal review panel schedule for 1986 is shown below:

Proposal Target Date	Panel Meeting	Start Date (Earliest)
February 1, 1986	April 1986	July 1, 1986
June 1, 1986*	August 1986	November 1, 1986
October 1, 1986	December 1986	February 1, 1987

*Last target date for proposals requiring ship support for calendar year 1987.

Proposals that have been previously declined and are being resubmitted must be received within these proposal target dates to be considered for ship support.

For further information contact Mr. John McMillan, Division of Ocean Sciences, Oceanographic Centers and Facilities Section (202) 357-7837.

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VESSEL INSPECTION

The overall condition and readiness of the UNOLS' fleet has shown significant improvement during the last few years. Shared use equipment is generally well maintained and functional. The major problem area is deck equipment maintenance, especially deck cranes, most of which need to be replaced. It was also noted that permanent ship-board sensors are often not state-of-the-art and should be upgraded. In this regard, it was generally felt that the inspection of vessels owned by the Navy (INSERV) should pay greater attention to scientific equipment such as winches and cranes.

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USER ASSESSMENT OF SHIP-BOARD OPERATIONS

User assessment of research cruises are becoming increasingly bland and are not reaching UNOLS in sufficient numbers. This is one of the few mechanisms that scientists have to help improve the facilities upon which their research depends.

Consequently, changes are being adopted in the management of User Assessment forms. Chief Scientists on UNOLS vessels are required to complete these forms at the end of each cruise. The forms should be provided by the operating institution. The current procedure has the Chief Scientist returning these forms to the operating institution where they are collated and sent to UNOLS for review by the Advisory Council. The AC is recommending that this procedure be changed so that the Chief Scientist submits his assessment directly to UNOLS thereby protacting the anonymity of the reviewer. Our goal is to increase the value of user assessments in evaluating both the pros and cons of ship-board operations which influence the scientific success of the cruise.

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SUBMERSIBLE SCIENCE

Two UNOLS workshops will be held to generate planning information for ALVIN-ATLANTIS II deep submersible science. The first workshop will be held December 8, 1985, in San Francisco, California, just preceding the AGU Fall Meeting. The second will be held January 12, 1986, in New Orleans, Louisiana, preceding the AGU-ASLO Ocean Sciences Meeting. The workshops will consider and hear presentations on interest in or intent to use ALVIN/ ATLANTIS II for submersible science during 1988. The ALVIN Review Committee (ARC) anticipates that potential investigators may wish to attend or participate in one but not both workshops.

In addition, the ALVIN Review Committee, at the request of the Navy, will host a workshop to generate planning information on science programs in 1987 utilizing the 6000 meter depth capability of the SEA CLIFF. The workshop will be held December 8, 1985 in San Francisco, California as a companion to (but conducted separately from) the planning workshops for ALVIN-supported science. The workshop will consider interest or intent in using SEA CLIFF in 1987, and both SEA CLIFF and TURTLE in 1988 and beyond.

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THE FUTURE OF INTERNATIONAL RESEARCH

The keynote speaker at the UNOLS meeting on 23 October was Ambassador John D. Negroponte, Assistant Secretary of State of Oceans and International Environmental and Scientific Affairs. Ambassador Negroponte addressed a challenge to the Department of State and the marine science community to work closely together to ensure widest possible access for U.S. scientists doing research in foreign waters.

Mr. Negroponte assured UNOLS members that the Department, through the Office of Marine Science and Technology Affairs (OES/OMS), would continue every effort to facilitate research vessel clearances through diplomatic channels. The U.S. marine science community, federal and academic, conducts more research in foreign waters than any other nation in the world. Clearances processed by OES/OMS in all of 1984 totaled 165, but in 1985, 200 clearances were processed in just the first eight months.

The Department also seeks opportunities to improve access through better relations with other governments. Bilateral arrangements, especially with Canada and Mexico, are the focus of efforts to streamline the clearance process. Furthermore, through such multilateral intergovernmental organizations as the Intergovernmental Oceanographic Commission, (IOC) and such regional bodies as ICES, the U.S. can effectively accomplish scientific and policy objectives in areas where bilateral arrangements would be politically difficult or impossible.

The UNOLS organization has a vital role to play, according to Mr. Negroponte, in encouraging its members to submit timely clearance requests, and in assisting OES/OMS in making sure the institutions and scientists understand that post-cruise obligations must be met. The Law of the Sea treaty requires processing of clearances through official channels, and post-cruise obligations are the responsibility of the researching state. Thus, if one U.S. institution fails to meet its obligations, the host country can deny access to other U.S. researchers until the offending institutions agreed obligations are fulfilled.

In conclusion, Mr. Negroponte stated that the challenge of preserving the right to conduct marine scientific research is real. "I prefer to view it as a challenge rather than a problem, and the response requires government, UNOLS and other representative bodies to work together if we are to be successful. You have my assurances that we will do our part, but we can't do it alone. I welcome recommendations for strengthening the marine science program in the State Department..."

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RESEARCH VESSEL OPERATOR'S COUNCIL MEETING

The RVOC held a very successful meeting in Moss Landing and Monterey, California on September 25-27, 1985. Sessions were held at host institutions Moss Landing Marine Laboratories and the Navy Postgraduate School and at the fabulous new Monterey Aquarium.

Special reports were heard on UNOLS Safety Standards, Ship User's Manuals, IMCO, and Shared Use Equipment/Marine Technicians. Presentations were made on the University of Southern California's conversion to research vessel use of the tuna seiner OSPREY, and on the new modern facilities and new research vessel PELICAN of the Louisiana Marine Consortium (LUMCON).

The high point of the meeting was a workshop on vessel stability. The workshop, organized and chaired by Eugene Allmendinger, featured presentations by Duane H. Liable, naval architect from The Glosten Assoc., Inc., Bruce Adee, Ocean Engineering, University of Washington, Lt. Scott E. Davis, U.S. Coast Guard and James Graf, American Bureau of Shipping.

The objectives of the workshop were to raise research vessel operators' level of awareness of stability criteria and the critical necessity for meeting these criteria under various operating conditions, and to provide input for the review and possible alteration of the stability section of the UNOLS Research Vessel Safety Standards.

Topics covered included:

- basic fundamentals of stability,
- need for new inclining experiments when significant changes occur in vessel light ship conditions,
- need for accurate information on deadweight locations and weights,
- stability criteria in current use,
- U.S. Coast Guard stability requirements for inspected and uninspected research vessels,
- adverse effects on stability of poor loading practices, icing, water on decks, following/quartering seas, towing of underwater gear, slack tanks and radical turns,
- ABS load line assignments and surveys, and their relation to stability,
- need for clear, accurate up-to-date stability information on board oceanographic research vessels,
- use of personal computers on board as adjuncts or to replace stability books, and
- need for stability guidelines for uninspected research vessels (less than 79 ft.).

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FIRST CLASS