UNIVERSITY-NATIONAL OCEANOGRAPHIC LAB

(2)
d/s
Stapled

UNOLS NEW

Vol. 7, No. 1 April 1990

HIGHLIGHTS

UNOLS in the 1990's

George H. Keller, UNOLS Chair, provides the following message to inform the community of recent developments in UNOLS philosophy and policy:

* * * *

As you can see from the new UNOLS Charter, we have a somewhat different organization with some biases that differ from the past decade. Since its inception, UNOLS has been an organization concerned with the operation of the academic research fleet, its capabilities, safe operation, and scheduling. For the most part, it has had a bias towards the operator institutions and their needs to provide this facility to the research community.

As we undertook to re-write the Charter, we sought not only to put together a more appropriate infrastructure for UNOLS that would be more responsible to the needs of the community and our sponsors, but to bias the organization towards the user. In days past, the operator and the users were commonly from the same institution, and it was assumed that the researchers could make their case when needed in their own institution. Now, as you know, the user is frequently not from the operator's institution, and this will certainly continue in the future.

The new infrastructure provides more opportunity for the non-operator institutions to have a voice in the guidance of UNOLS.

1 front

Every institution that qualifies is now considered a member of UNOLS, and has the same voting right as all other members. We no longer have the associate member category, but we do use an Operator designator in the case of those institutions operating a UNOLS vessel. You will also note that in regard to the membership in the UNOLS Council and the chair and vice-chair positions, that the representation has been changed so that non-operator institutions have a greater opportunity to directly participate in UNOLS activities.

Designation as a UNOLS vessel no longer has the same requirements as in the past. The new criteria will allow more vessels to be so designated. This in itself will alter the composition and size of the UNOLS fleet, which has not changed dramatically in recent years. This will throw some people off, because all of a sudden the fleet has expanded, yet we have said for years that we cannot find justification for enlarging the fleet. You can easily see that designating a vessel as a UNOLS vessel will carry a different connotation that most have perceived during the past decade. **Being a UNOLS vessel does not carry with it any commitment for operational funding or replacement funding by the federal agencies.** In reality, that concept went out long ago, but it still seems to be a perception that lingers on. The funding for any academic research vessel will depend on its degree of support to federally sponsored research programs. Certainly in many cases the funding pattern will not change from when the vessel was not part of the UNOLS fleet.

In re-doing the Charter, we felt it made good sense for UNOLS to incorporate the academic research fleet that is used by our community to basically certify the operations and capabilities of a vessel from the safety and operations point of view. **One might say UNOLS has become a certifier of academic research vessel operations, to insure that the research community has quality facilities from which to operate.**

As we move forward with new ship construction, I suspect we will see more attention given to advancing the state-of-the-art in vessel capabilities, and less thought to one-for-one replacements and the connotation that goes along with the word "replacement." We have, in fact, been in a competitive mode for some time, and will undoubtedly continue to be so when selecting operators for the new vessels.

So all UNOLS institutions have a greater opportunity to partake in its activities, and being designated a UNOLS vessel will mean that it is basically certified to safely and effectively carry out academic research as well as being available to the community for scheduling. No more, no less.

We look forward to this greater involvement of the user community, so UNOLS can stay well attuned to the times, and grow with the needs of the researchers and our federal sponsors.

George H. Keller
UNOLS Chair

2 back

****

Council Designates UNOLS Vessels

The UNOLS Council has recently designated three vessels as UNOLS vessels: PELICAN, operated by LUMCON and SEWARD JOHNSON and EDWIN LINK, operated by Harbor Branch Oceanographic Institution. The designations for SEWARD JOHNSON and EDWIN LINK were provisional, based on their undergoing MARAD/ABSTECH inspections under the NSF research vessel inspection program.

****

New UNOLS Research Vessels

Four modern, highly-capable research vessels will begin operations in the UNOLS fleet during the period June, 1990 through July, 1991. Each of these research vessels will have capabilities beyond any ship currently in the UNOLS fleet or usually available to support U.S. academic oceanographers.

The MAURICE EWING (Columbia University Regents and NSF have agreed to renaming the BERNIER) will complete shipyard conversion on May 1, will conduct acceptance trials and shakedown during May, and will undertake the first operational project in June, 1990. The MAURICE EWING will be a 239 ft. L.O.A., 2,665T displacement general-purpose research vessel. The ship will have modern multi-channel seismic capability, a multibeam high-resolution bathymetry system, 15,000-mile range at 12 knots and will accommodate over 30 scientists and technicians.

Both the KNORR and MELVILLE have begun the major renovation and modernization that will make them virtually new, highly-capable, blue water, general-purpose research vessels. On completion of their shipyard modifications (re-engining, stretching), these ships will be 279 ft. L.O.A., 2,958T displacement ships with 14,100 nautical-mile range at 10 knots or nearly 12,000 miles at 12 knots. Each ship will accommodate 34 scientists and technicians. The KNORR was re-launched March 24, will continue renovation, start-up and trials through June, with outfitting during July at Woods Hole and first operational project in August, 1990. KNORR's capabilities are closely matched to those of a large, high-endurance, general-purpose research vessel (as listed in UNOLS Scientific Mission Requirements for Oceanographic Research Vessels).

Meanwhile, the MELVILLE has been undergoing pre-docking shipyard work for several months and will be lifted out of the water on April 7, 1990. Delivery of the MELVILLE, after renovation similar to KNORR's, is scheduled for mid-December, 1990. Transducers for a modern, multibeam bathymetric mapping system have been acquired, and these will be installed in a special section in MELVILLE's hull.

KNORR and MELVILLE will be the first UNOLS vessels capable of supporting the full range of projects envisioned in new Global Initiatives for Oceanography.

3 front

NSF FY1991 CONGRESSIONAL BUDGET REQUEST

NSF

- Total Request is $2.383 Billion
- Increase of $304 Million or 14.6 % from FY1990
- Increase maintains Administration commitment to doubling the Foundation's budget
- Research and Related Activities increases by $223 M or 13.5%
- Science and Engineering Education increases by $48 M or 23.6%
- U.S. Antarctic Program increases by $23 M or 15.1%

GEOSCIENCES (less Antarctic Program)

- Total Request is $383.7 Million
- Increase of $58.7 M or 18.1% from FY 1990
- Increases for
  - Global Geosciences 39.8 M
  - New research investigations and instrumentation 11.5 M
  - New program in Arctic social sciences 1.0 M
  - Science and Technology Centers 3.4 M
  - Education and Human Resources Activities 3.0 M

The THOMAS G. THOMPSON (AGOR-23) continues under construction by Halter Marine, Inc. in Moss Point, Mississippi. The THOMPSON will be 274 ft. L.O.A., 3,250T displacement with 6,000 shaft horsepower. Cruising speed will be 12.5 knots, maximum 14 knots. Endurance is estimated at 33 days at 14 knots plus 29 days at 3 knots (or various equivalent combinations of cruising, station keeping, etc.). The ship will accommodate 28 scientists, without vans. The ship is scheduled to be launched in July, 1990; construction and outfitting will continue in the water, followed by trials and shakedown. The THOMPSON, expected to take up scientific operations during the last half of 1991, will also have large, high-endurance, general-purpose oceanographic research capabilities and will be equipped with a modern, multibeam swath bathymetric mapping system.

These four large, modern ships will lead the UNOLS fleet into the 1990's and help meet the challenges posed by modern, blue-sea, ocean-basin scale oceanographic research.

****

NSF Budgets and Planning Announcements

National Science Foundation representatives have recently furnished a series of illustrations on the NSF FY-1991 Congressional Budget Request, on the Ocean Sciences Division budgets for 1987 through 1991 (requested), with OCE detail for 1989 through 1991 (requested) and on Ocean Sciences Division Long-Range Plans (1989-1995).

NSF's budget request for 1991 is $2.383 billion, up 14.6% from 1990. The Geosciences Directorate would receive $383.7 million (not including the Antarctic Program), an increase of 18.1%.

Ocean Sciences would receive $171.0 million, an increase of 16% over 1990. Most of the 1991 increment would go toward Global Geosciences. Within Ocean Sciences, Ocean Sciences Research Support achieves the largest gain, $15.7 million (21.5%). Oceanographic Centers and Facilities is to increase by $5 million (11.7%) and the Ocean Drilling Program increases by $3 million (9.4%).

Detail within Oceanographic Facilities show increases in Operations from $29.3 million in 1989 to $29.1 million in 1990 to $32.7 million in 1991. A combined Ship Operations, ALVIN, Aircraft, etc., was at $25.9 million in 1989, $25.5 million in 1990 and would rise to $28.5 million in 1991. The combined Infrastructure and Technology, Centers, Reserves were $14.3 million in 1989, $13.4 million in 1990 and $14.7 million in 1991.

Ocean Sciences Division Long-Range Plans (1989-95) project increases from $145.9 million in 1989 to about $310 million in 1995. OCE Core programs increase from about $125 million (1989) to about $210 million (1995). Core programs decrease slightly 1989-1990. Global Science programs are projected from about $19 million (1989) to about $110 million (1995). During the same interval, Global Science rises from 16% to 34% of the OCE total.

4 back

NSF Ocean Sciences Budget

	1987	1988	1989	1990	1991	Change 87-91
OSRS	66.5	67.2	70.9	72.9	88.6	33.2%
OCFS	37.2	37.2	43.6	42.5	47.4	27.4%
ODP	30.0	30.6	31.4	32.0	35.0	16.7%
	133.7	135.0	145.9	147.4	171.0	27.9%

FY 1991 BUDGET INCREMENT

• Global Geosciences	$19.2 M
• Disciplinary Base	$1.4 M
• Ocean Drilling Program	$3.0 M
	$23.6 M

FY 1991 BUDGET PROFILE

Science	$104.6 M
• Disciplinary Science	75.4
• Global Geosciences	29.2
• Education & Human Res.	(4.1)
Facilities	$66.4 M
• Disciplinary Science	54.6
• Global Geosciences	11.8
• Capital Equipment	(3.3)

5 front

7 front

NSF FY1991 CONGRESSIONAL BUDGET REQUEST

OCEAN SCIENCES

- Total Request is $171.0 Million
- Increase of $23.6 Million or 16.0 % over FY 1990
- Global Geosciences increase by $19.2 M or 88.1%
- Other programs increase by $4.4 M or 3.5%

OCEAN SCIENCES RESEARCH SUPPORT

- Increase of $15.7 Million or 21.5% to $88.6 M
- Focus on Global Change and new investigations
  - implementation of WOCE with hydrographic sections in Pacific, initiation of surface drifter program, and Altlantic process experiments
  - expansion of JGOFS with Pacific equatorial biogeochemical flux program
  - initiation of RIDGE field programs
  - participation in TOGA Coupled Ocean/Atmosphere Response Experiment
  - long lead-time instrumentation and model development for GLOBEC
  - increase number of awards to new and young investigators

NSF FY1991 CONGRESSIONAL BUDGET REQUEST

OCEANOGRAPHIC CENTERS AND FACILITIES

- Increase of $5.0 Million or 11.7% to $47.4 M
- Focus on facilities, field operations and technological requirements of Global Geosciences program
  - ship and technical support for Global Geosciences field programs funded by research programs
  - ocean technology support for ecosystems dynamics sampling systems and operations of accelerator mass spectrometry facility
  - upgrading of scientific support equipment in academic research fleet to meet global change research needs

OCEAN DRILLING PROGRAM

- Increase of $3.0 Million or 9.4% to $35.0 M
- Focus on operational costs, development of crustal drilling technology, and individual investigator support
  - measurement and sampling tools for high-temperature environments
  - experiments to measure crustal deformation and fluid flow in boreholes
  - high latitude field programs to define regional geologic framework for future drilling
  - support for analysis of geochemical and geophysical logging data

OCEAN SCIENCES DIVISION DETAIL

	Actual FY 1989	Estimates FY 1990	Requested FY1991
Ocean Sciences Division	$ 145.9 M	$ 147.4 M	$ 171.0 M
Ocean Sciences Research	70.9 M	72.9 M	88.6 M
Ocean Drilling Program	31.4 M	32.0 M	35.0 M
Oceanographic Facilities	43.6 M	42.5 M	47.4 M

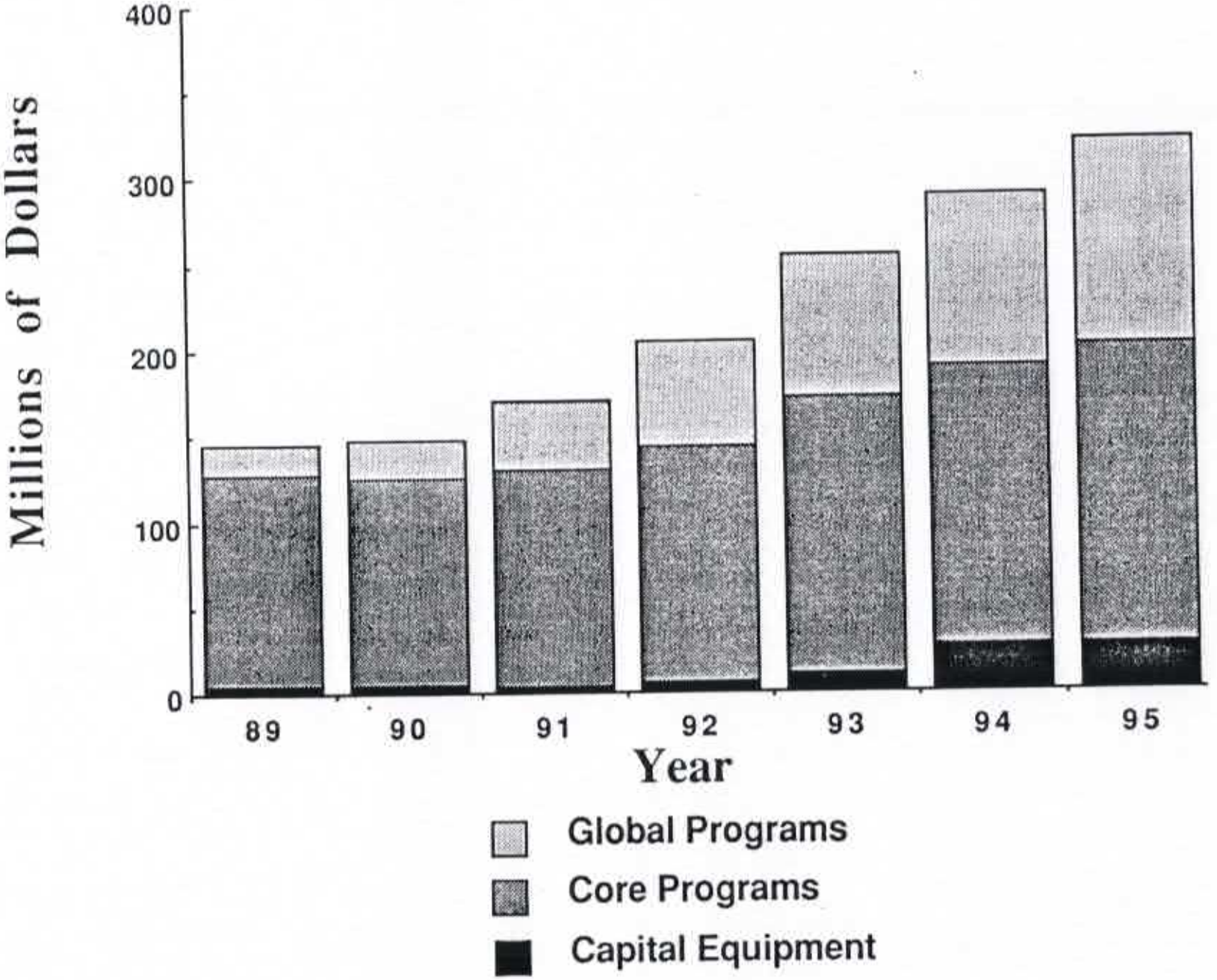
OCEANOGRAPHIC FACILITIES DETAIL

Operations			
Ship operations	24.6 M*	25.5 M*	28.5 M*
ALVIN, Aircraft, etc.	1.3 M		
Marine Techs	3.4 M	3.6 M	4.2 M
	29.3 M	29.1 M	32.7 M
Infrastructure			
Science instruments	1.6 M	3.8 M	4.0 M
Shipboard Equipment	0.9 M		
Ships, Upgrades	2.8 M	2.8 M	2.6 M
UNOLS, Misc.	0.7 M	0.4 M	0.5 M
	6.0 M	7.0 M	7.1 M
Technolgoy, Centers, Reserves			
Technology Development	4.5 M	3.2 M	4.2 M
AMS Center	1.8 M	1.8 M	1.8 M
Cross Directorate/Reserves**	2.0 M	1.4 M	1.6 M
	8.3 M	6.4 M	7.6 M

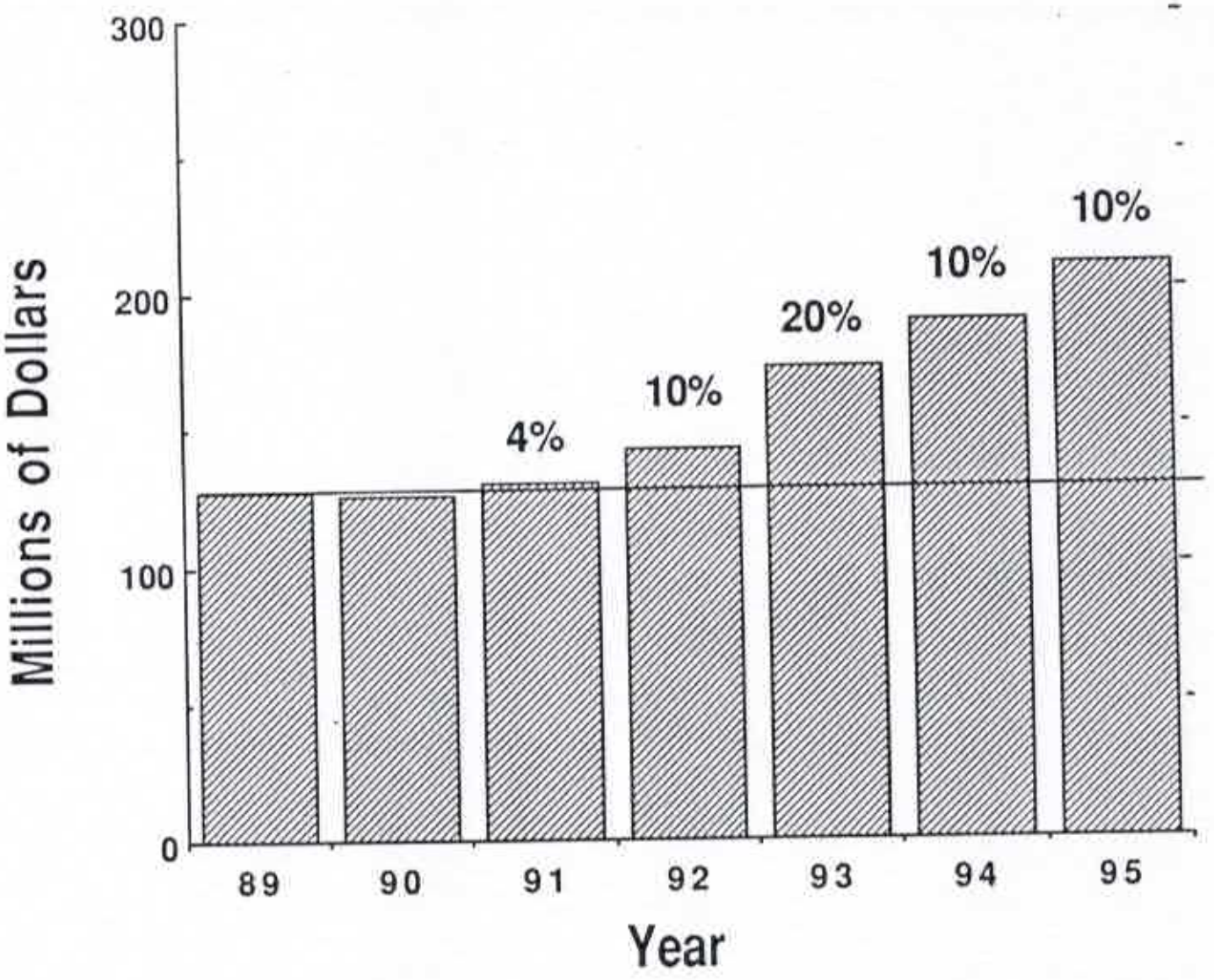
* Plus $1.5 M from ODP (1989), $1.3M (1990), $1.5 M (1991)
** Cross-directorate/Reserves previously distributed

9 Font

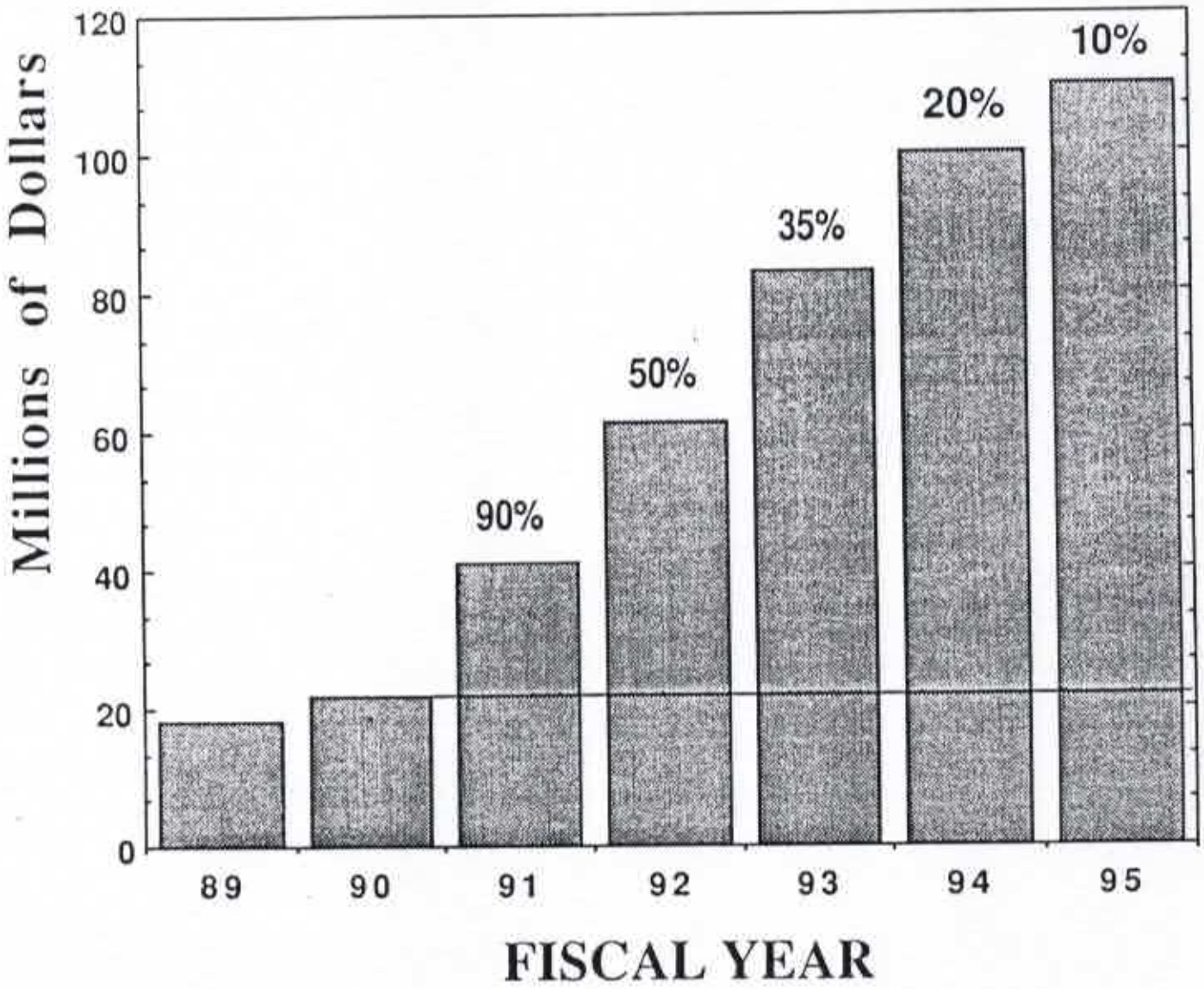
OCE Long-Range Plans (1989-95)



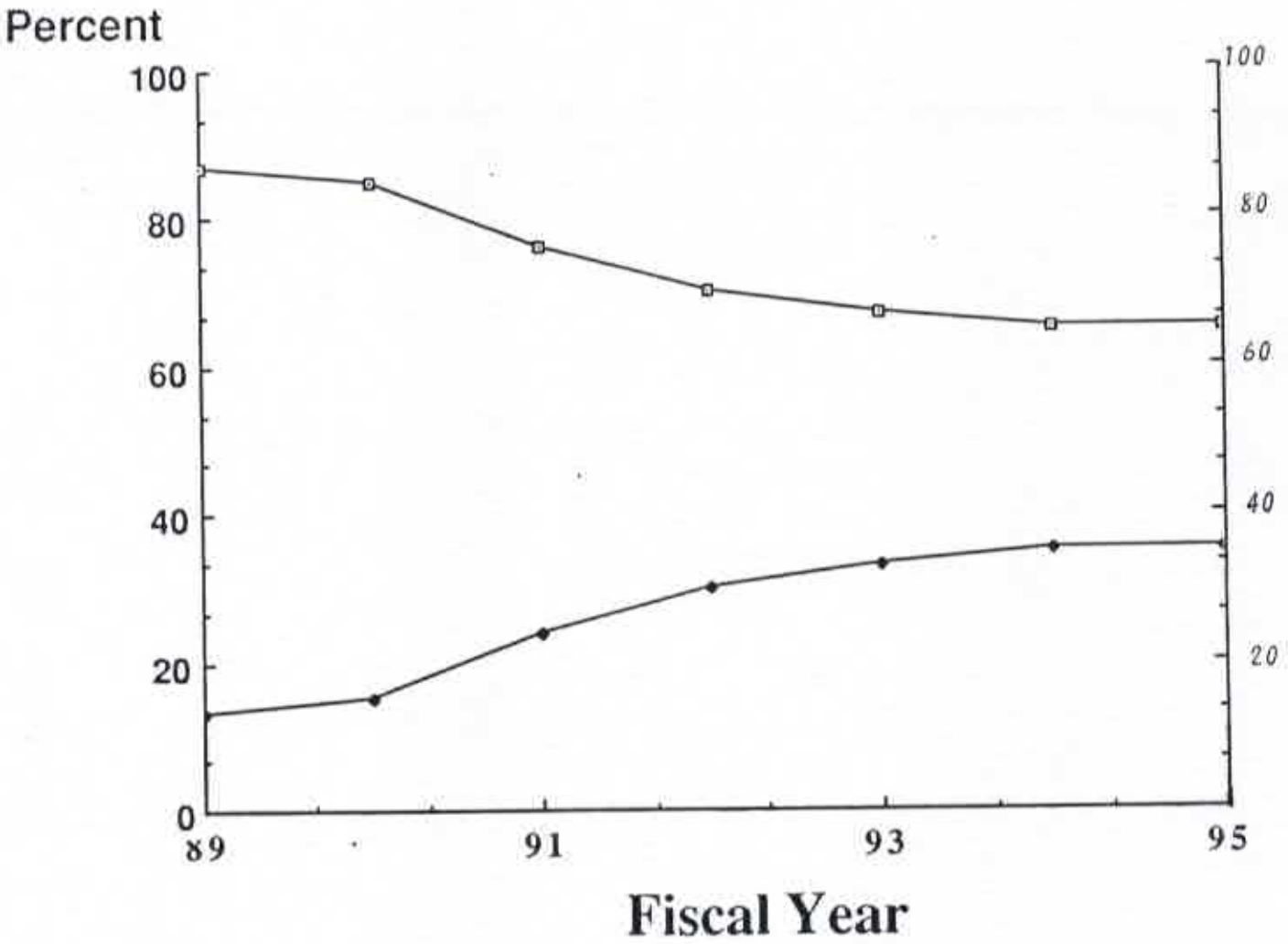
OCE Core Program Projections
(1989-1995)



OCE Global Geoscience Projections
1990-1995



PROGRAM BALANCE



UNOLS Research Vessels in 1990

Schedules for UNOLS research vessels in 1990 were developed and approved by funding agencies with more than expected difficulty. Schedules, characteristics for individual ships, as they appear April 2, 1990, on the Omnet bulletin board SHIP.SCHED90 are:

ALPHA HELIX: As in 1989, the traditional schedule funded mainly by NSF will be augmented by work in Prince William Sound related to the EXXON VALDEZ oil spill. A schedule of 164 days has been developed; Resurrection Bay, Prince William Sound and southeast Alaska (February-April), Bering Ice Edge and Skan Bay (April-July), Prince William Sound and Kodiak (July-October), and Resurrection Bay (November). An NSF portion of 102 days is proposed.

ATLANTIS II: Scheduled for 280 days (NSF, 147; Navy, 70; NOAA, 55 and Other, 8). After a project on the MAR, ship will enter shipyard (February-March), followed by two ALVIN projects in the Gulf of Mexico (March-April). After transit through the Panama Canal, ALVIN projects off Guatemala (May), EPR and Gulf of Cortez (June), then non-ALVIN work in Gulf of Cortez (July). Transit to Gorda-Juan de Fuca-Oregon continental margin for four ALVIN projects (July-September). Return for three ALVIN projects on Fieberling Guyot and Monterey Canyon (October-December), and end year in San Diego.

BERNIER: The BERNIER should complete scheduled shipyard modifications, installations and shakedown by the end of May and take up operations at Miami-Woods Hole in June. After installation of SEA MARC II, work is scheduled in the north Atlantic (July-September). After transit, SCS/MCS/MGG work is scheduled in the south Atlantic (October-November), Southern Ocean (December) and, at year's end, in the south Pacific. 231 operational days are funded by NSF (95), NSF/DPP (16) and Navy (120).

BARNES: Scheduled 155 days, in inland waters, Washington and British Columbia, 135 days funded by NSF, 20 by ONR, NOAA, USGS, State and Other.

BLUE FIN: Regional schedule advanced for 100 days, half NSF, half DOE.

CALANUS: Scheduled for 148 days in Bahamas, Florida Keys, funded by NSF (103 days) and NOAA (45 days).

CAPE HATTERAS: Scheduled for about 171 days, off south Atlantic coast (January-February), Georges Bank and Gulf of Maine (April), Caribbean (May-June), western Atlantic, Gulf of Maine (June-August), Sargasso, Bahamas, southeastern United States shelf (August-November). 137 days funded by NSF, 10 by ONR, 14 by DOE and 10 by State.

CAPE HENLOPEN: Abbreviated schedule for 65 days, funded by NSF (20), Navy (32) and DOE (13). Work on mid-Atlantic continental shelf (June-December).

14 back

ENDEAVOR: Modest schedule for 197 days funded by NSF (120) and ONR (77) in Gulf of Maine (January), Sargasso and northwest Atlantic (January-April), Barbados, Bermuda, Florida Straits (April-June), northwest Atlantic, Gulf Stream, Georges Bank (June-November). Open in February, July, September, November.

GYRE: Scheduled for 185 days, funded by NSF (120 days) and State (65 days). Work begins in Gulf of Mexico (January-March), off Bermuda (March-April), Gulf of Mexico (April, May, July, October), Bahamas (October), and Cocos, Galapagos (November). Openings in May, June, August, September and December.

ISELIN: Scheduled for 277 days, funded by NSF. Work in eastern Caribbean (January, April), Amazon Fan (February-April and May-June), the Caribbean (July), Barbados (September, October), and North Atlantic (November).

SEWARD JOHNSON: Enters fleet in 1990. Scheduled for 177 days, funded by NOAA (121), Navy (34) and Harbor Branch (22). Off Bahamas (February, April, May, October) and Great Lakes (June-September).

KNORR: Continues renovation/conversion (January-June), after return to Woods Hole, outfitting (July), south of Iceland (August, September), then transit to WOCE work in southeast Pacific (September-December). NSF (93), Navy (42) and NOAA (10) funding for 145 days.

EDWIN LINK: Enters fleet in 1990. 140 days, funded by NOAA (74), Navy (21), NSF (12) and Harbor Branch (33). Work off Florida (January, February, July, September), Caribbean (January, July), and off North Carolina (August).

LAURENTIAN: 51 days, all in Lake Michigan, under NSF and State funding. Working season is April-October.

LONGHORN: Re-enters fleet in 1990. Anticipate 50 days regional work under State funding.

MELVILLE: Under conversion/renovation January-November. Shakedown (December). No operations scheduled.

MOANA WAVE: Scheduled for about 275 days, funded by NSF (178) and commercial contract (97). Work in Hawaiian waters (January), transect Hawaii-Pago Pago-New Zealand-Guam (January-April), G&G off Taiwan and Subuyan Sea (April-June), in Hawaiian waters (July-December).

NEW HORIZON: Scheduled for 255 days, funded by NSF (125), ONR (26), DOE (32), NOAA (25), NASA (10) and UC (37). Work in California Basins (January, February, March, June-November), Fieberling Guyot (February), off Oregon (May, June) and near Mazatlan (April).

OCEANUS: Schedule advanced for 187 days funded by NSF (115), Navy (57) and NOAA (15). Work south of and local to Woods Hole (March, April), vicinity of Bermuda (April), off northeast coast and mid-Atlantic Bight (July-September), and Sargasso Sea (September, October, November).

15 front

OSPREY: Enter shipyard November 1989-January 1990, and complete conversion after shipyard. Sea trials and scientific operations during year.

PELICAN: Scheduled for 63 days, funded by NSF, MMS, NOAA, DOE. All work in northwest Gulf of Mexico.

POINT SUR: Scheduled for 176 days, funded by NSF (80), CNOC (75), State (15) and MBARI (6). Work off California and in Monterey Bay (January-December).

ROBERT G. SPROUL: Schedule for 147 days. One project off Columbia River (September, October). Remaining work (January-August and November-December) is off southern California, funded by NSF (115), DOE (9), ONR (4), UC (11) and JPL (8).

RIDGELY WARFIELD: Scheduled for 104 days in Chesapeake Bay, funded by NSF (102), JHU (2).

THOMAS WASHINGTON: Scheduled for 270 days, funded by NSF (217), ONR (45), JOI (6) and UC (2). Work begins with G&G near Galapagos and Panama Basin (January, February), mid-Atlantic Ridge in south Atlantic (March-May), off Venezuela (June), and EPR in north and south Pacific (July-December). Open August-October.

WECOMA: Scheduled for 235 days funded by NSF (186) and ONR (49). Work begins in western equatorial Pacific (January-March), central equatorial Pacific (April-July), and work off Washington, Oregon and northern California coasts (August-November).

WEATHERBIRD: Newly converted ship will work out of Bermuda for entire year. 242 days funded by NSF (234) and Other (8).

The fleet schedule is for a total of about 4,500 days. This is an increase of approximately two ship-years over the fleet's 1989 total of 3,984 days. A large part of the increase is by inclusion of two additional ships in the UNOLS fleet, SEWARD JOHNSON, and EDWIN LINK. These two ships account for an additional 317 days, funded mostly by NOAA and Harbor Branch institutional funds.

Four large ships, the BERNIER, KNORR, MELVILLE and THOMPSON are not available for operations in part or all of 1990. **Each of the four should operate for more days in 1991 than are possible in 1990.**

Several intermediate ships have light operational schedules in 1990 (e.g., ENDEAVOR, GYRE, OCEANUS). These light schedules reflect limits of funded research and/or funding limits for ship operations in 1990.

Agency representatives from NSF and ONR have expressed concerns with the UNOLS scheduling process and with the efficiency of the resulting fleet schedule that was proposed for 1990. At the UNOLS Council Meeting held February 8, 9, 1990, NSF and ONR representatives characterized the scheduling process as inadequate in several aspects. Some individual ship schedules were proposed (in Ship Operations Proposals submitted

16 back

October, 1989) with unacceptably long transits or other inefficiencies. An inadequate job was done in integrating schedules among individual ships of similar class and operating areas; results are that several similar ships are inefficiently scheduled to support a set of projects that should be accomplished on fewer ships and at lower cost. Some science projects remained on ship schedules too long after the science had any prospect for funding.

While the reasons for inadequacies in the UNOLS scheduling process are many, and some are beyond UNOLS control (e.g., timely notice of funding status is not available for all projects), the agencies asked and the Council agreed to some steps to improve the process. By more careful identification of projects and shiptime requests, by a midsummer analysis of the UNOLS fleet schedule and by feedback to operators and schedulers on every ship schedule, UNOLS and the agencies hope to make the scheduling process more effective.

****

Early Submission of Proposals for Research Requiring Ship Time

One factor that can help to make ship scheduling more effective and help assure that prospective principal investigators are scheduled onto a suitable ship is the timely submission of those science proposals that require ship support. The Oceanographic Centers and Facilities Support Section of the National Science Foundation's Ocean Sciences Division notes that since 1981, ocean science research proposals involving the use of UNOLS ships must be submitted in time to be considered at the spring or summer proposal review panel meetings. OCFS representatives note that this year's proposal target dates for the spring and summer panels remain February 1 and June 1 (1990). Proposals that have been previously declined and are being resubmitted must also be received within these target dates to be considered for ship support.

NSF/OCE has revised their form NSF 831, NSF-UNOLS Ship Time Request Form. Use of the new form is mandatory with all science proposals submitted to NSF's Ocean Sciences Division, whether or not they require ship time. The revised 831's include more information than did older forms. They are intended also for use in requesting ship time from individual UNOLS institutions. Use of the new forms should help in tracking.

Although ONR does not rely on scheduled review panels for their science proposals, representatives note that it is equally important to initiate ship time requests for their projects in a timely fashion.

****

Alcohol Policies Aboard UNOLS Ships

Stringent Coast Guard regulations concerning the use of alcohol aboard ships became effective in January, 1988. These regulations include provisions for testing for alcohol in the event of reportable incidents or for other cause, establish stringent limits for intoxication and

17 front

oblige masters to enforce the rules with diligence. **The UNOLS Council and RVOC have polled UNOLS operators and find that all operators have policies concerning alcohol aboard their UNOLS ships, policies that are in line with Coast Guard regulations.** The Council fully supports UNOLS operators in their policies on alcohol and ships. The following letter was widely distributed to UNOLS ship operators and users as a statement of that support:

* * * *

February 12, 1990

TO: UNOLS Community

FROM: George H. Keller, UNOLS Chairman

SUBJ: Unauthorized consumption of alcohol aboard UNOLS vessels

All the UNOLS ship operators have established policies regarding the consumption of alcohol aboard their ships. The liability impact on the operator when there is an accident and alcohol is found to be involved can be devastating, and prompts this memorandum. The seriousness of this issue was brought to the attention of the UNOLS Council, and it is strongly committed to backing the operators in coping with this problem.

In the future, research vessel operators will insure that those going aboard their vessel(s) are informed of the institution's policy regarding the consumption of alcohol. Anyone found in violation of the policy will be reported to his/her employer and will be restricted from use of the ship another time. Whether the institution gives the individual a second chance will be its call.

The UNOLS Council has gone on record as fully supporting the above stated practice and will work closely with the operators to deal with any problem of unauthorized consumption of alcohol aboard the UNOLS vessels.

****

Drug Policies Aboard UNOLS Ships

During 1988 and 1989, ships in the UNOLS fleet came under the Zero Tolerance Program, conducted by the U.S. Custom Bureau and the U.S. Coast Guard, and under U.S. Coast Guard rules for drug testing on ships.

On two occasions, a UNOLS ship has been seized by Customs under the Zero Tolerance Program, when small quantities of drugs were found in the quarters of an individual crew member (different ships, different institutions, different people). In both instances, the ship was released under a constructive seizure status and was able to continue its scheduled program. Efforts by the operating institutions to obtain release of the ships have been difficult and costly.

18 back

The Coast Guard Drug Testing Program prescribed testing for ship's crews, pre-employment, periodic, random, post casualty and reasonable cause. Embarked personnel other than crew could be affected post casualty or for cause. Although some aspects of the testing program have been challenged in court and are currently suspended (challenges deal mostly with random testing), other parts are in effect, and UNOLS institutions have begun testing programs, especially pre-employment testing.

Marine operators, including UNOLS ship operators, have very little room for debate concerning Zero Tolerance and Drug Testing programs. If any UNOLS operator is to continue to operate research vessels, (s)he must develop and execute a policy in conformance with zero tolerance. (S)He must conduct a drug testing program for his/her crew and, in some instances, for other embarked personnel. In short, all UNOLS ship operators must do their best to assure that no drugs are brought aboard or used aboard their ships. As a result, we can expect some things that may be distasteful: stronger control over everything loaded aboard ships, explicit notification and request for acknowledgement of ship operation policies, searches to assure clean ships (some employing dogs), and, on occasion, requests for samples for testing.

****

UNOLS Safety Standards and Training

The UNOLS Research Vessel Safety Standards have been revised and were distributed in October, 1989. These Research Vessel Safety Standards provide guidelines for the safe and prudent operation of research vessels operated or chartered by UNOLS institutions. They are available to UNOLS ship users before or during cruises. Copies are available from the UNOLS Office.

Work continues on a UNOLS Safety Manual currently being developed under direction of the RVOC Safety Committee. The manual will be used for training and indoctrination of marine crews, licensed officers and science parties aboard UNOLS research vessels. The basic manual was completed in October, 1989. Since then, work has progressed on producing a summary document that would be useful in orienting and instructing science parties on shipboard safety. The completed UNOLS Safety Manual is expected to be available during 1990.

****

Hosting the UNOLS Office

Proposals to host the UNOLS Office were received from five UNOLS Operator institutions (one proposal was withdrawn before evaluation) in response to Chair George Keller's announcement that an open selection for the Office would be made during 1990. A four-person UNOLS Evaluation Committee was appointed to review proposals and to evaluate candidates advanced for Executive Secretary. The Committee met for two days in late March to interview all four prospective Executive Secretaries, to evaluate proposals and to make recommendations to UNOLS.

19 front

The Evaluation Committee recommended the proposal from the University of Rhode Island, with Jack Bash as Executive Secretary. That recommendation will be considered first by the UNOLS Council and then by UNOLS Membership. If approved by the Council and Membership, the University of Rhode Island would submit their proposal, with UNOLS' recommendation, to NSF in about September, 1990. The UNOLS Office would be established at URI in about May, 1991. Happy trails (or trials?), Jack and URI.

****

UNOLS Officials

Since most readers of UNOLS NEWS don't attend UNOLS meetings or meetings of the UNOLS Council or Committees, they might not know who's what. Here's a list of the critical positions:

UNOLS Chair
George Keller, Oregon State University

UNOLS Vice Chair
Tom Johnson, Duke/UNC

UNOLS Council
George Keller, Chair, *ex-officio*
Tom Johnson, Vice Chair, *ex-officio*
Elected Members of the Council
Larry Atkinson, Old Dominion
Peter Betzer, U. South Florida
Gary Brass, U. Miami
Jeff Fox, U. Rhode Island
Tom Malone, U. Maryland
Art Maxwell, U. Texas
Worth Nowlin, TAMU
Ex-Officio Members of the Council
Feenan Jennings, TAMU; Chair, ALVIN Review Committee
Donn Gorsline, USC; Chair, Fleet Improvement Committee
Mike Rawson, L-DGO; Chair, Ship Scheduling Committee
Jim Williams, Scripps; Chair, Research Vessel Operators Committee

For full membership or institutional representation on standing UNOLS committees, ALVIN Review Committee, Fleet Improvement Committee, Ship Scheduling Committee and Research Vessel Operators Committee, contact the UNOLS Office or the Chair of the committee in question.

20 back

Calendar for UNOLS Meetings

The UNOLS Annual Meeting and meetings of the UNOLS Council and Committees in 1990 have been set:

UNOLS Annual Meeting	September 21	Washington, DC
UNOLS Council	February 8, 9	Monterey, CA
	July 12, 13	Grand Haven, MI
	September 20	Washington, DC
Ship Scheduling Committee	June 25	Washington, DC
	September 19	Washington, DC
ALVIN Review Committee	June 27-29	Woods Hole, MA
Fleet Improvement Committee	March 29, 30	San Antonio, TX
	July 19, 20	Napa, CA
	October 4, 5	Woods Hole, MA
Research Vessel Operators Committee	October 8-10	New Orleans, LA

The Annual meeting is open, as are Ship Scheduling meetings. UNOLS especially encourages representatives from UNOLS Member institutions (operators or non-operators) to attend UNOLS Annual Meetings.

****

NSF Announces Contract for Research Vessel With Icebreaking Capability

The National Science Foundation announced recently the signing of a contract for the construction and ten-year leasing of a 300-foot research ship with icebreaking capability for use in the U.S. Antarctic Program, which is managed by the Foundation.

Edison Chouest Offshore Inc. of Galliano, Louisiana, will build the ship at its shipyard in Larose, Louisiana, southwest of New Orleans along the Gulf of Mexico. The ship will be the first U.S. flag vessel with icebreaking capability fully dedicated to research and capable of operating year-round in Antarctica.

The new ship will be a first-rate platform for studies of global change, including its biological, oceanographic and geological components. It will be able to operate safely year-round in the Weddell and Ross Seas, and in other Antarctic waters that are often stormy or covered each winter with sea ice.

Polar regions are sensitive to changes in the global environment, and may also significantly influence the direction and magnitude of global climate changes through the interrelationships of the ocean, atmosphere, ice and the continent itself.

21 front

One of the ship's first projects will focus on ocean processes in the western Weddell Sea, a major source of bottom water for the world's oceans. Scientists from the U.S. and Soviet Antarctic programs will work together to establish a base camp on sea ice from which they will launch studies of ocean circulation and climate.

The ship will also aid in studies of the winter stages in the life cycles of krill -- a shrimp-like crustacean -- and other marine organisms, the effects of the annual melting of sea ice on marine productivity at the ice edge, and the dynamics of the marine food chain, among others.

The research vessel is scheduled to be ready for delivery in January, 1992. When construction is completed, NSF will acquire a ten-year charter. The contract, valued at $83.8 million, includes the ten-year charter, per diem charges such as food and accommodations for the duration of the charter, installation of winches and compressors, and delivery to Punta Arenas, Chile, anticipated to be one of the ship's home ports.

The total cost of operating the research ship, including the contract, fuel, port charges and other expenses, is estimated to be about $11 million per year, or $110 million for the ten-year duration of the charter. The ship is being leased in compliance with Administration and Congressional policy, but the contract gives NSF the option to buy the ship for $55 million at the end of the charter period.

The ship, designed to break up to three feet of ice at a speed of three knots, will support the research of 37 scientists on board, and will have a crew of 22.

Six diesel engines, three directly driving each of two propeller shafts through a gear box, will be capable of generating 11,070 horsepower. Under normal low-speed cruising conditions, one or two engines will be running on each propeller shaft. The ship will be able to perform 75-day missions, and will have a helicopter landing deck and capabilities for housing and maintaining two, four-passenger helicopters.

The contract with Edison Chouest is actually a subcontract entered into by ITT Antarctic Services, Inc. (ANS), of Paramus, N.J. ANS has been under contract to NSF for the past ten years to manage station facilities, construction, and ship operations in Antarctica. ANS, with input from NSF and the scientific community, consulted a marine engineering firm to define technical requirements for inclusion in a solicitation for bids.

In February, 1989, ANS, taking into account a congressional stipulation that U.S. shipyards receive special consideration, issued a request for proposals. ANS received six formal bids. The contract has been made to Edison Chouest on the basis of technical merit and price.

22 back

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

62-6678

FIRST CLASS

23 back