UNIVERSITY-NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

SUMMARY REPORT OF THE MAY 1983

SEMIANNUAL MEETING

NATIONAL ACADEMY OF SCIENCES
2101 Constitution Avenue N.W.
Washington, D.C.

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May 1983

Summary Report of Semiannual Meeting

May 26, 27, 1983

National Academy of Sciences
2101 Constitution Avenue NW
Washington, D.C.

General: Issues and items considered at the May, 1983 Semiannual Meeting are reported in the order that they were addressed. Unless otherwise noted, all items are from the published agenda (Appendix I).

Before and during the meeting, registration forms were available to attendees together with information distributed through the UNOLS Office: UNOLS Directory, List of Research Vessels, and Summaries of UNOLS Vessel Fleet Operation - 1982. Registered attendees are listed in Appendix II. The Directory, List of Research Vessels and Summaries of UNOLS Fleet Operation are Appendices III-V.

Introduction and Welcome: The UNOLS Semiannual Meeting, May, 1983 was called to order by Chairman, Dr. Derek Spencer. After welcoming the UNOLS membership, guests, agency representatives and others from the oceanographic community, Dr. Spencer gave the principal address of the meeting:

Recent progress in oceanography has been impressive. One can cite advances in the understanding of plate tectonics achieved by ocean geophysics and ocean drilling programs, insights into geochemical processes reached through ocean chemistry investigations and the discovery of mid-ocean hydrothermal vent systems. These last, often surrounded by startling oases of life, have major implications for ocean mineral resources, provide stunning opportunities to examine the role of the deep earth in controlling the composition of the ocean and for understanding the origin of life under conditions quite alien to those normally encountered at the earth's surface.

These achievements notwithstanding, the academic ocean community is often perceived as a community of tinkerers -- in part because of constraints in funding and providing facilities for oceanography, but in part because the community itself has difficulty in reaching accord on science program objectives and in ordering its science objectives.

Budget and facility constraints are real problems to ocean science. The community is aware that over the last decade inflation has reduced ocean research resources, the community has had difficulty in acquiring needed equipment and ONR's share of support to basic ocean science has declined strongly. Academic institutions have faced difficulties in hiring and keeping high quality staff. This is particularly true in areas such as geology and geophysics where competition from industry is intense. Since 1981 the academic fleet has shrunk from 35 vessels to 25. In particular, large and intermediate vessels (with capabilities to support a broad scope of oceanographic investigations, on extended cruises and in remote areas) have decreased from 16 to 13.

Important as these constraints are, they are at least equaled by the community's need for accord on priorities and objectives. Because of ocean

science's diverse, interdisciplinary nature, oceanographers do not convince each other of the excitement of their science. Especially in the economic conditions likely in the near future, ocean scientists *must learn to order new major thrusts*.

Recent funding decisions, both in NSF and in ONR should provide a degree of redress to these problems: ONR has initiated a series of special research opportunities. These special programs have provided funding for mid-life refits for navy-owned vessels and special research programs in the South Atlantic and addressing Sea-air interaction and Bioluminescence. The Department of Defense Instrumentation Initiative will have an important impact on the quality of tools available for ocean science. NSF emphasis on basic science support is welcome, and proposed increases of 10% for ocean science and facilities support will provide needed relief. *(There is* concern that the increase is less than the 20% for other earth and planetary sciences. The importance of oceanography to science in general suggests that an increase of 20% is well justified.) And, as you will hear later, projected use and funding for the academic fleet will increase significantly in 1984 over recent years.

New ventures in ocean science match these gains in funding. The ocean drilling program has new impetus. Other ventures include a world ocean circulation experiment, recent progress through submersible science and the promise of exciting new unmanned technology, an ocean seismic network, and biologists and chemists working together near the deepsea floor are making fundamental gains.

These recent factors are grounds for optimism. *To capitalize the ocean community must learn to order its priorities and approach agencies with firmly conceived, well directed plans. The importance of ships and facilities to ocean science suggests a strong role for UNOLS in the endeavor.*

UNOLS Advisory Council Report: Before delivering his report on the year's activities of the Advisory Council, Chairman, Dr. Bruce Robison expressed his and the Advisory Council's respect and gratitude *to Derek Spencer for the excellent job he has done as UNOLS Chairman and for the leadership and insight that he has brought to the Chair. Thank you, Derek, for a job well done.*

In his report, attached as Appendix VI, Dr. Robison emphasized the Advisory Council's year-long study of the UNOLS fleet. The study was made in response to a charge from the National Science Foundation and from the Office of Naval Research to "*...develop specific recommendations on a ship-by-ship basis for the composition, distribution and management of the UNOLS fleet in the 1983-88 time frame.*" The stimulus for that charge and the fleet study was the projected imbalance between available ship time and the ship requirements from funded research programs. This imbalance was due primarily to underfunding of research.

The study report included a set of specific recommendations for a *minimum UNOLS fleet* (i.e., a fleet comprising the minimum capabilities to support academic ocean investigations). In addition, it initiated activity and discussion that produced for UNOLS a time of valuable, constructive self-evaluation. In October, 1982 the Advisory Council delivered its report

Composition, Distribution and Management of the UNOLS Fleet to NSF, ONR and UNOLS. The report was delivered with a declaration that its ship recommendations should be suspended until they could be reevaluated in terms of new ship-requirements information in Spring, 1983. The Council made that re-evaluation in March, 1983: *Composition, Distribution and Management of the UNOLS Fleet, A Reexamination.*

Thus, the Advisory Council's current recommendations are that there be no immediate reductions in the UNOLS fleet and that, at least through 1985 the fleet should include 17 vessels in classes A through D. Earlier recommendations to lay up large and intermediate vessels or to relocate intermediate vessels are withdrawn. Recommendations to reassess (in 1984) the rate of use of some vessel classes and ship utilization in some regions remain.

Other activities centered around the standing roles that have been assumed by Advisory Council members. Productive action on two of these roles, dealing with research vessel user manuals and with bulk purchasing, has been completed and the roles discontinued. Council roles in monitoring UNOLS ship scheduling activities and in monitoring fleet efficiency and effectiveness through cruise assessment reports have proven to be of value and continue.

The Council role on specialized facilities continues, with a change in emphasis. A subcommittee (Roger Larson, Chair, Charles Miller, Louis Gordon and Tom Rossby) has been formed to address the UNOLS community need for specialized instrumentation facilities. They will prepare a proposal for the establishment, within NSF, of a program for Cooperative Instrumentation Centers for Oceanographic Research. A prospectus for that proposal is included in Advisory Council minutes for May 25, 1983.

The Council role concerning replacements, additions and retirements in the UNOLS fleet has been to a degree subsumed by the UNOLS recommendation to establish a Committee to prepare recommendations and a detailed schedule for ship replacement. Other Council actions will continue as a part of the process initiated by their fleet study.

Two aspects of the Council role concerning ship's equipment have been completed: a proposal has been generated and accepted for a workshop on microcomputers; and UNOLS satellite communications are now handled through a separate grant to the University of Miami.

A new standing role has been established to consider new design ideas for observational platforms.

The Council has also established a subcommittee on International Restrictions to Ocean Science Research, Robert Corell, Chair, Dirk Frankenberg, John Knauss, David Ross and Warren Wooster, members. (The subcommittee will report to UNOLS later in this meeting.)

The Council has also endorsed the proposed National Expeditionary Planning Program. This planning program was initially developed in the Council's Fleet Study and later addressed by an *ad hoc* group from among UNOLS operating institutions. The proposal is to be submitted to UNOLS at this meeting.

The Advisory Council decided at its May 25, 1983 meeting that it would examine the UNOLS Charter and consider the need for revision, particularly with respect to membership criteria. The UNOLS membership is requested to send their ideas on Charter revision to the UNOLS Office.

U.S.-France Cooperative Program in Oceanography: Monsieur Jean-Pierre de Longeau, Chef du Service des Operations Navales, Direction de la Flotte, CNEXO addressed the membership to encourage the cooperative use of French and U.S. research ships. He suggested that it would be of value to secure provisions wherein a research project from one country could be executed through the use of ships from the other. Since both countries have modern ships and other research facilities (and natural competition between the two research communities notwithstanding) cooperative use of facilities could be of value by enhancing ship availability in a particular locale, eliminating long transits and for other reasons.

After briefly describing the size and characteristics of the CNEXO fleet and their scheduling process, Monsieur de Longeau noted that while observing the May 25 UNOLS scheduling meetings he was struck more by the similarities in modes of operation than by differences. He tentatively identified U.S. research needs in the Mediterranean that might be filled by French ships and French needs in the eastern Pacific that might be filled by U.S. ships.

He suggested that as an immediate goal the two countries might try to arrange for one U.S. program to be carried out on a French ship and one French program on a U.S. ship in 1984.

The discussion that followed included expressions of interest from individual researchers and operators and a reminder that CNEXO had already contracted with Scripps for a project on the WASHINGTON in 1982.

ALVIN Review Committee Report: In the absence of Robert Corell, Chairman, ARC, the report was given by William Barbee.

The 1982 ALVIN-LULU season was the most extensive and intensive since ALVIN has been operated as a National Facility through UNOLS. ALVIN completed 132 dives in 209 use days, beginning in the Guaymas Basin and continuing operations in California basins, on the East Pacific Rise, in the Panama Basin, on the Mid Atlantic Ridge, off Bermuda, the Virgin Islands and Puerto Rico, in the Straits of Florida and Providence Channel and in Atlantic shelf canyons. Seventeen different principal investigators conducted research.

At the beginning of 1983 work was underway on converting ALVIN to single-point lift and modifying ATLANTIS II to serve as the support ship. (See Appendix VII, progress report.) Work is on schedule, and ALVIN/ATLANTIS II should be available in October for submersible research.

Diving in 1983 is scheduled to begin during the summer with tests of the modified ALVIN, dives for certification and pilot training. Some scientific programs (convenient to the base in Woods Hole) will be included. LULU will support ALVIN during this phase. ALVIN/ATLANTIS II sea trials will be completed late in the summer, followed by scientific projects and transit to the Pacific via the Panama Canal. One or more projects will be undertaken in the Pacific before the end of 1983.

Planning for 1984-1985 ALVIN/ATLANTIS II work in the Pacific continued with a workshop and ALVIN Review Committee meeting held in December, 1982. At the workshop, approximately 40 scientists presented their intended work using ALVIN. Based on those intentions the ALVIN Review Committee announced a tentative ALVIN/ATLANTIS II expedition outline together with a call for ALVIN Time Requests (Appendix VIII). The tentative plan covers ALVIN operations January, 1984 through early 1985 in areas from the Eastern Tropical Pacific, through California Basins, Gorda-Juan de Fuca, the Central Pacific, Marianas region and return to the Eastern Pacific.

In April, 1983 the ARC met to review the resultant ALVIN Time Requests. Fifty-one Time Requests were received, proposing about 575 dives (or roughly 2 1/2 times what could be accomplished in the time considered). The Review Committee was beset by problems in conducting individual reviews and trying to synthesize a schedule. The very large number of Time Requests included many based on proposals not yet funded. (Many proposals had not yet been submitted.) The Committee agreed on the need for a better sequence among times for the submission of science proposals, review panels for proposals, funding decisions, submission of ALVIN Time Requests and ALVIN reviews. Nevertheless, the ARC began development of a 1984-1985 schedule for ALVIN operations:

January - June 1984:	Operations on East Pacific Rise, East Pacific Seamounts, Panama Basin and California Basins.
June - September 1984	California-Oregon-Washington Slope, Gorda-Juan de Fuca Rise.
Sept. 1984 - March 1985	Transit to Marianas with operations in Central Pacific and Marianas region, and return to Eastern Pacific.
March - April, 1985:	Additional operations in Eastern Equatorial Pacific.
July 1985:	Latest return to W.H.O.I.

Development of the schedule continues.

A working group was formed under the ARC to address the issues on enhancing ALVIN's scientific capabilities. The group developed a Prospectus for equipment additions and enhancements. The Prospectus was distributed to the ALVIN community and returns are now being codified.

The ARC continues to encourage the use of the Navy operated submersibles SEA CLIFF and TURTLE while at the same time recognizing that comprehensive planning is required to make their scientific use effective.

Outlook For FY-1984, 1985 Ship and Program Support: R. R. La Count, Head, Oceanographic Facilities and Support Section noted that based on information he has received from the Ocean Sciences Research Section and from UNOLS institutions, 1984 promises to be a year of heavy ship use. He provided information on the recent trend in NSF's ocean science funding.

	Year 1981	1982	1983	1984
Ocean Sciences Research Section (OSRS)	$47.09M	$46.9 M	$49.7 M	$55.7 M
Oceanographic Facilities Support Section (OFS)	27.27	28.9	30.7	33.4
Division of Ocean Sciences (OCE)	$74.36M	$75.8 M	$80.4 M	$89.1 M
Within OFS				
Category 5410 - Ship Operations	$20.21M	$20.46M	$22.18M	$23.4 M
Category 5420 - Constr., Convers.	1.97	1.25	1.09	1.3
Category 5430 - Instru. & Equip.	2.01	4.07	3.98	4.3
Category 5440 - Marine Techs, ALVIN, etc.	2.58	3.12	3.75	4.5
	$26.77M	$28.9 M	$31.0 M	$33.4 M

Mr. La Count noted special recent problems that have been encountered in his office in managing budgets and accounts for ship operations. For example, in 1973 fuel accounted for about 6% of ship operations costs. Today fuel accounts for about 17% and is difficult to project. He also expressed his interest in and need for uniformity in ship operation cost procedures and reports.

He noted that despite these budget and accounting difficulties, John G. McMillan, Operations Program Manager had guided that program through the past year within his allocated budget while achieving highly effective ship operations programs. He commended Mr. McMillan for his performance.

Mr. K. Kaulum noted that there was as yet no detailed information concerning the Office of Naval Research's budget for ship operations. Indications are that funding for ship operations will remain essentially level at $3.5M to $4.0M. Within that funding, emphasis will shift toward Special Focus programs. By 1985 it is projected that about half of the funding will be in various Special Focus programs. In 1984 the Southern Oceans and Bioluminescence Special Focus will be significant ship users.

ONR has participated in Federal Oceanographic Fleet Coordinating Committee (FOFCC) affairs, including the FOFCC study on requirements and projected use for Federally funded research ships. Current results from the study project use in 1984, 1985 and 1986 of about 50 days more than typical and a shift toward requirements for larger (more expensive) ships.

ONR is moving toward earlier commitments for science funding and, to provide greater continuity, toward 2 to 3 year commitments for some individual programs. They anticipate that this year all ONR site visits to oceanographic institutions will be completed by early fall (prior to the fall UNOLS meeting).

ONR's Special Focus program for upgrading ships is funded at $3.6M this year and anticipated at $1.6M in 1984, the last year of the current program. A continuation will be proposed for 1985 through 1989 at a more modest level. In 1983, the T.G. THOMPSON underwent midlife refit. The ship entered and finished repairs and renovations on schedule and under budget. *Mr. Kaulum*

commended Captain John B. Watkins, Jr., Marine Superintendent together with Marine Operations, School of Oceanography, University of Washington for that performance. The T. WASHINGTON enters midlife refit this summer and is scheduled for completion early in 1984. The MOANA WAVE will start later. Details of work including a stretch on the MOANA WAVE are presently being negotiated.

This year, ONR administered for the Navy, the Department of Defense program of research instrumentation and equipment grants. In this first year of a $30M/year five year program, 2,500 proposals were received and 210 funded. There will be a combined year program for 1984 and 1985. Submissions must be made by February 1984, and funding will begin in late 1984 or 1985. Invitations will provide additional guidance on proposals, on requirements for application, etc.

Rear Admiral R. Munson, NOAA noted that his agency had provided schedules for the NOAA fleet to NSF for transmittal to France relative to the U.S.-France Cooperative Program in Oceanography.

NOAA reorganizations have created a main component, the National Ocean Service (NOS). The NOAA fleet is managed by the Office of Fleet Operations (OFO) which is a principal element in NOS. The Atlantic and Pacific Marine Centers are directly under OFO.

The NOAA budget for fleet operations remains uncertain, as it was during 1983. Cuts have been proposed (but appealed) that would remove from operation eight fisheries ships, the SURVEYOR and the FERREL from the fleet. In addition, the Miami ship base would be cut.

The Department of Interior and MMS have indicated that support for OCSEAP (outer continental shelf studies off Alaska) will be reduced thus making time available on the DISCOVERER and MILLER FREEMAN.

The recently completed NOAA-NSF Memorandum of Understanding allows more convenient exchange of and arrangement for ship time.

NOAA ship schedules will be made available to the UNOLS Office.

Dr. T. Aldrich, noted that the USGS marine program in 1984 will be at or above the current level. The USGS anticipates ship operations with UNOLS institutions at TAMU, WHOI, URI and Maryland in 1984.

Report on International Restrictions on Ocean Science Research: Dr. David Ross, Subcommittee Member gave the report (Appendix IX) on the Subcommittee's activities concerning restrictions to ocean science research.

After reviewing the Subcommittee charter and membership, Dr. Ross discussed proposed legislation from the perspective of potential effects on U.S. ocean research. He noted especially H.R. 703, a bill to facilitate the conduct of international marine scientific research, introduced by Congressmen Studds and Pritchard. He also noted the March 10, 1983 Presidential Proclamation announcing new guidelines for U.S. oceans policy and proclaiming an Exclusive Economic Zone for the U.S. that will have significant effect on the conduct of ocean research.

These and other policy developments are viewed in a context of post-Third U.N. Conference on Law of the Sea (UNCLOS III), the adoption of LOS convention by many nations, and the United States' determination not to adopt LOS.

The Subcommittee has been in contact with the Bureau of Oceans and International Environmental and Scientific Affairs, Department of State concerning these factors affecting marine scientific research. In an April 20, 1983 letter to the Subcommittee, (Appendix X), Theodore G. Kronmiller, Deputy Assistant Secretary of State for Oceans and Fisheries Affairs noted the Proclamation's effects on U.S. ocean researchers (e.g., elimination of need to extend research within three miles of foreign coasts, and ensuring unrestricted research off the U.S. coast beyond three miles).

Dr. Ross also cited the National Research Council's 1981 publication *Bilateral Agreements for Marine Science* prepared by the Ocean Policy Committee, Commission on International Relations. (This report is available from National Academy Press, Washington, D.C.)

Dr. Ross concluded his report by describing his recent questionnaire and report on The Impact of the Law of the Sea Conference on U.S. Marine Scientific Research.

Permits for Research in Ocean Regions Restricted by Foreign States: An overview of United States Oceans Policy as it affects ocean researchers was presented by William Erb and Lee Stevens, Office of Marine Science and Technology Affairs, Department of State.

Mr. Erb's presentation on U.S. Oceans Policy (Appendix XI) cited the President's Proclamation announcing new guidelines for oceans policy and establishing an Exclusive Economic Zone (EEZ).

The EEZ proclamation confirms U.S. sovereign rights beyond the territorial sea, but within 200 nautical miles of United States coasts. The Proclamation does not change existing policies concerning the outer continental shelf and fisheries within the EEZ. Policies setting U.S. jurisdiction on the outer continental shelf date from 1945, and U.S. fisheries management and conservation authority within 200 miles was established in 1976 with the Fishery Management and Conservation Act.

The President did not assert jurisdiction over marine scientific research in the EEZ, consistent with U.S. interest in promoting maximum freedom for such research. The Proclamation confirms that, without prejudice to the rights and jurisdiction of the United States in its EEZ, all nations will continue to enjoy non-resource related freedoms of the high sea beyond the U.S. territorial sea and within the U.S. EEZ.

In practical terms, the major impact on marine science is (and will be) that scientists are no longer required to conduct research inside other nations' territorial seas to justify the State Department's processing clearance requests. While under the old policy research within an EEZ could sometimes be undertaken without a permit, this is no longer prudent. Since the U.S. now legally recognizes extended claims, the government could provide little to defend researchers challenged by coastal states.

The new policy states that the U.S. will recognize 200-mile jurisdictions that are exercised in a reasonable manner consistent with international law. Reasonable has not been defined in the President's Proclamation, but will be addressed case-by-case and in consultation with the marine science community.

In discussing bilateral agreements, Mr. Erb noted that their importance to marine research remains as stated in the National Academy of Science/National Research Council workshop of 1978. His office is involved in existing bilaterals relevant to marine research, and is willing to consider new agreements including those proposed with Canada and Mexico. He noted, however, that there are risks associated with seeking bilaterals and there are costs associated with their execution. UNOLS institutions share in those risks, and will be responsible for some of the costs (e.g., sharing data and information, providing for foreign participation).

Mr. Erb concluded by stating "These initiatives should only be undertaken after full consultation with the marine science community and with their participation."

Mr. Lee R. Stevens discussed the status and recent experience of research permits (Appendix XII, Notice to Research operators #61 (revision 3)), Claimed Maritime Jurisdictions, and Summary of 1982 Clearance Requests).

He advised that it is acceptable for institutions to seek clearances through private channels, especially where successful channels are already established.

Several countries have, in the recent past, presented extraordinary situations. The climate for research in Mexican waters is improving but remains sensitive, especially concerning living and non living resources. Permits are usually forthcoming only at the last minute. Canada remains the most convenient country from which to secure permits, because of common research interests and comparable research programs. A useful dialogue has been established with Brazil, and permits should be forthcoming. Six months' lead time is mandatory.

UNOLS National Expeditionary Planning Process (UNEPP): Dr. Derek Spencer presented the proposed planning process to the membership, noting that an initiative describing the process had been distributed to UNOLS membership for their consideration in April, 1983. The concern in forwarding this process is to improve operational planning for the UNOLS fleet, thereby enhancing the effectiveness of the U.S. oceanographic program. The need was emphasized to maintain flexibility in planning and conducting ocean research operations.

Dr. Spencer requested that members continue their consideration of the Expeditionary Planning Process so that it could be formally considered at the May 27 UNOLS Business Meeting. Further, members should consider and submit nonimations for chairman UNEPC so that a Chairman could be elected if the UNEPP is adopted.

Report from East-West Regional Ship Scheduling Groups: Captain R. P. Dinsmore delivered a report covering the May 25, 1983 meetings (Appendix XIII). He noted that the meetings were successful, and full schedules were reported for all UNOLS ships for 1984. In contrast to many recent years, 25-35% of the

projects scheduled are already funded, compared to the usual 10-15% at May meetings.

The schedules for some ships are heavier than desirable, but still achievable. All but one or two projects are accommodated in the overall schedule (although some projects were deferred to 1985 through negotiation). Efforts will continue to make arrangements for those few projects not yet scheduled.

One problem in achieving effective, operational schedules is the late submission of requests for ship time. (Some time requests were received during this last week.) These late submissions are disruptive to effective planning and scheduling. Investigators should realize that even though efforts will be made to accommodate their late requests, their chances for getting the time and platforms that they desire are reduced.

Provisional schedule summaries are included in Appendix XIII. These schedules show most ships in the fleet operating close to their home port. Exceptions are the ATLANTIS II, CONRAD, ENDEAVOR, GYRE, MELVILLE, MOANA WAVE, THOMPSON and WASHINGTON, all of which will spend at least part of 1984 in remote areas.

As shown in the tables of 1983 and 1984 UNOLS Ship Data, 1984 operating days will exceed 1983's by about 20%. Although ship time requests exceed estimates of funds available, there is a workable match, and satisfactory adjustments should be achievable.

The Ship Scheduling Groups offer the following recommendations:

> *All ships should be funded for operation in 1984. All ship schedules are strong, and no ships are vulnerable to lay up.*
>
> *In order to plan and schedule effectively, a more prompt and timely submission of Ship Time Requests is required.*
>
> *UNOLS should sponsor a Workshop on Ship Operation Costs.*

The meeting was adjourned for the day at 5:00 p.m.

1983 ESIMATED UNOLS SHIP DATA
DATA FROM 24 MAY 1983 EAST-WEST SHIP SCHEDULING MEETING

	OP DAYS	TOTAL COST	DAILY RATE	NSF $K	NSF DAYS	ONR $K	ONR DAYS	"OTHER" $K	"OTHER" DAYS
MELVILLE	261	3065	11743	DPP 622 OFS 1539	DPP 52 OFS 131	DARPA 658	DARPA 56	247	21
KNORR	280	3240	11571	2338	202	902	78	0	0
ATLANTIS II	112	2186	19517	1502	77	0	0	683	35
T. WASHINGTON	156	2013	13019	1639	126	181	14	194	15
THOMPSON	161	1660	10310	900	87	640	62	120	12
CONRAD	268	2708	10104	2557	253	0	0	151	15
(TOTAL)	(1238)	(14872)		(11097)	(928)	(2381)	(210)	(1395)	(98)
OCEANUS	256	1697	6629	1272	192	259	39	166	25
ENDEAVOR	242	1512	6247	904	145	372	53	276	44
WECOMA	260	1832	7046	1565	222	204	29	63	9
GYRE	275	1700	6181	700	114	70	11	930	150
KANA KEOKI	297	1410	4747	720	152	193	41	497	104
ISELIN	206	1340	6504	1262	194	45	7	32	5
NEW HORIZON	201	1337	6651	1157	174	146	22	33	5
(TOTAL)	(1737)	(10828)		(7580)	(1193)	(1249)	(202)	(1997)	(342)
CAPE FLORIDA	191	921	4821	713	148	14	3	193	40
CAPE HATTERAS	244	1278	5237	813	155	50	10	415	79
ALPHA HELIX	137	1313	9583	1092	114	77	8	144	15
CAPE HENLOPEN	130	788	6061	112	18	8	2	668	110
VELERO IV	137	565	4124	565	137	0	0	0	0
R. WARFIELD	145	484	3338	484	145	0	0	0	0
E. B. SCRIPPS	155	422	2722	237	87	DARPA 14 84	5 31	89	32
(TOTAL)	(1139)	(5771)		(4016)	(804)	(247)	(59)	(1509)	(276)
CAYUSE	160	501	3131	307	99	25	8	169	54
LONGHORN	100	104	1040	0	0	0		104	100
BLUE FIN	210	168	800	116	145	0	0	52	65
ONAR	150	142	946	132	140	0	0	10	10
CALANUS	128	211	1648	158	96	0	0	53	32
(TOTAL)	(748)	(1126)	----	(713)	(480)	(25)	(8)	(388)	(261)
GRAND TOTAL	4862	32597	----	23406	3405	3902	479	5289	977

DATA FROM 24 MAY 1983 EAST-WEST SHIP SCHEDULING MEETING

	OP DAYS	TOTAL COST	DAILY RATE	NSF $K	NSF DAYS	ONR $K	ONR DAYS	"OTHER" $K	"OTHER" DAYS
MELVILLE	245	2905	11857	DPP 996 OFS 1411	DPP 84 OFS 119	237	20	261	22
KNORR	296	3402	11493	2022	176	1012	88	368	32
ATLANTIS II	300	3190	10633	1600	150	530	50	1060	100
T. WASHINGTON	289	3028	10478	2399	229	629	60	0	0
THOMPSON	261	2313	8862	1781	201	532	60	0	0
CONRAD	340	2980	8765	2980	340	0	0	0	0
(TOTAL)	(1731)	(17818)		(DPP 996) (OFS 12193)	(DPP 84) (OFS 1215)	(2940)	(278)	(1689)	(154)
OCEANUS	265	2000	7547	1412	187	257	34	331	44
ENDEAVOR	275	2054	7469	1389	186	134	18	531	71
WECOMA	255	1785	7000	1533	219	0	0	252	36
GYRE	300	1900	6333	1300	205	50	8	550	87
MOANA WAVE	265	1564	5902	JOI 295 OFS 802	50 136	0	0	466	79
ISELIN	290	1885	6500	1690	260	65	10	130	20
NEW HORIZON	282	1760	6241	225	36	343	55	1192	191
(TOTAL)	(1932)	(12948)		(JOI 295) (OFS 8351)	(JOI 50) (OFS 1229)	(849)	(125)	(3452)	(528)
CAPE FLORIDA	241	1220	5062	946	187	0	0	274	54
CAPE HATTERAS	250	1365	5460	1168	214	33	6	164	30
ALPHA HELIX	210	1573	7490	1416	189	75	10	82	11
CAPE HENLOPEN	145	600	4138	270	65	16	4	314	76
VELERO IV	206	826	4010	778	194	0	0	48	12
R. WARFIELD	190	650	3421	650	190	0	0	0	0
E.R. SCRIPPS	148	457	3088	420	136	31	10	6	2
(TOTAL)	(1390)	(6691)		(5648)	(1175)	(150)	(30)	(888)	(185)
CAYUSE	160	522	3262	343	105	0	0	179	55
LONGHORN	100	110	1100	0	0	0	0	110	100
BLUE FIN	230	176	765	150	196	0	0	26	34
BARNES	200	156	780	136	174	0	0	20	26
CALANUS	173	251	1450	205	141	0	0	46	32
(TOTAL)	(863)	(1215)		(834)	(616)	(0)	(0)	(381)	(247)
GRAND TOTAL	5916	38671K		DPP 996 JOI 295 OFS 27026 28317K	DPP 84 JOI 50 OFS 4235 4369	3944K	432	6410K	1114K

May 26, 1983

			$M	
1983 SKEDS:	NSF	ONR	OTHER	TOTAL
FEB. FORECAST	27.5	4.0	4.3	35.8
MAY PROJECTION	24.9	3.9	4.9	33.6
FINAL FUNDING	23.5	4.1	5.8	33.5
1984 SKEDS:				
FEB FORECAST	28.1	4.5	6.2	38.8
MAY PROJECTION	28.3	4.1	6.2	38.6
FINAL FUNDING	----	----	-----	----
ESTIMATED FUNDS	25.4	4.1	6.2	35.8

JUNE 8, 1983
NOTE: Corrections reflect eliminating MOORE from data, and transferring DARPA from "Other" to "ONR".

The UNOLS Business Meeting was called to order by Chairman Spencer at 8:30 a.m. in Room 150, National Academy of Sciences.

UNOLS Office Activities: William Barbee, Executive Secretary reported on 1982-1983 activities of the UNOLS Office. Highlights included moving the Office from Woods Hole to the University of Washington, Seattle, reestablishing the Office there and securing new staff; and supporting UNOLS Membersip, Councils and Committees in their meetings and activities.

The *UNOLS Office and staff supported and participated in thirteen meetings of UNOLS* Councils, Committees and membership. Reports were prepared and submitted for all of these meetings, and, together, form the core documentation for UNOLS activities.

The Office was more active than in the recent past during 1982-1983 in supporting and participating in *UNOLS ship scheduling activities*. Support was provided to East and West Coast Ship Scheduling Group meetings, and reports were issued through the UNOLS Office. This level of participation and support will be maintained or enhanced in coming years.

The UNOLS Office issued *Summaries of Use of Ships in the UNOLS Fleet* for 1981 in August, 1982 and for 1982 in April, 1983. The timely issuance of 1982 statistics was in large part due to the fine cooperation of each of the UNOLS operating institutions.

Beginning in 1983, the Office compiled and distributed summaries of *Cruise Assessment Reports* to help in assessing the effectiveness of all ships in the UNOLS fleet.

During 1982-1983, Office *support of Advisory Council activities* consisted in large part of supporting and documenting the Council's special study on *Composition, Distribution and Management of the UNOLS Fleet*. The Office also aided in establishing a *Council Subcommittee on International Restrictions to Ocean Science Research,* and with the functions of that committee.

Support of the ALVIN Review Committee, in addition to the traditional tasks in soliciting ALVIN time requests and documenting and distributing results of the Committee's annual review of requests, included organizing and conducting a workshop on prospective ALVIN submersible research.

Operation and management of UNOLS' satellite link communications has, since August, 1982, been under a grant to the University of Miami (and no longer under the UNOLS Office).

Dr. George Shor, Scripps, moved and the UNOLS membership joined to commend Mr. Paul Eden for his excellent service to the UNOLS community in operating the satellite communications system.

At the conclusion of the report, Chairman Derek Spencer thanked the Executive Secretary for his support and commended him for his service to UNOLS.

National Expeditionary Planning Process (NEPP): Chairman Spencer opened discussion on NEPP, using the previously distributed NEPP initiative as a reference basis. (This initiative, as amended and later adopted, is Appendix XIV.)

During the discussion, although there was reasonable agreement on the need to enhance UNOLS' schedule planning process, concern was expressed that the initiative

- layed out excessively long lead times for proposal submission, commitment of funds and project planning;
- might not incorporate adequate flexibility to accommodate short-term opportunity work;
- was representative of ship operator interests (and was good for them) but was contrary to individual investigator's interests; and,
- was biased in favor of "big ticket" expeditionary type ocean science at the expense of individual investigator proposals.

In countering these concerns, proponents suggested that

- longer lead times *were* proposed, but they are essential to more effective planning;
- the need for flexibility is recognized, hopefully, is accommodated in the plan, and *must* be preserved in the execution;
- longer lead times and community notification are an opportunity for many scientists to participate in programs during their formative stages when otherwise they might go unreported and unnoticed; and,
- substituting a National Expeditionary Planning Process for the existing set of institutional processes is essential if adequate opportunity for remote expeditions is to be afforded.

Throughout the discussion, the initiative's provision for workshops was well supported.

Membership concerns were ultimately focused onto the charge proposed for the UNOLS National Expeditionary Planning Committee, and particularly on requirements for reports:

The UNEPC shall issue a preliminary expedition planning report no later than twenty-seven months prior to the year of vessel operations.

The UNEPC shall deliver a final report to the regional scheduling committees no later than eleven months prior to the year of vessel operations.

An amendment was offered substituting:

The UNEPC shall deliver an annual report to the UNOLS regional scheduling committees no later than eleven months prior to the year of vessel operations.

The UNOLS National Expeditionary Planning Committee charge and the Planning Process were adopted by UNOLS membership, as amended:

THE UNOLS NATIONAL EXPEDITIONARY PLANNING COMMITTEE
A STANDING COMMITTEE OF UNOLS

CHARGE

The UNOLS National Expeditionary Planning Committee (UNEPC) shall provide communications between scientists, operating institutions and funding agencies that will allow the timely and effective planning of major expeditionary operations by UNOLS Member Institutions.

The UNEPC shall establish such communications mechanisms as are desirable and necessary to provide community-wide information on probable and possible future vessel operations pertaining to extended or logistically complex voyages and shall provide preliminary schedules for these voyages. The UNEPC, together with the ALVIN Review Committee and appropriate operating institutions, shall coordinate the planned use of special facilities such as Seabeam, Multichannel Seismic, submersible operations and others as may be deemed necessary with the expeditionary voyage schedules.

The UNEPC shall deliver an annual report to the UNOLS regional scheduling committees no later than eleven months prior to the year of vessel operations.

The chairman of the UNEPC will report on the planning progress at the regular UNOLS semi-annual meetings.

The UNEPC shall consist of:

1. Chairman: elected by UNOLS members from the community at large. To serve a three year renewable term.

   One member appointed by each of UNOLS member institutions operating Class A, B, or C vessels. These include:

2. University of Washington
3. Oregon State University
4. Scripps Institution of Oceanography
5. University of Hawaii
6. Texas A&M University
7. University of Miami
8. Lamont-Doherty Geological Observatory
9. University of Rhode Island
10. Woods Hole Oceanographic Institution

11. A member of the UNOLS Advisory Council appointed by the Chairman of the Advisory Council.

12. The Chairman of the ALVIN Review Committee.

13. The UNOLS Executive Secretary (staff)

The chairman of UNEPC shall appoint two of the above members (2) to (10) to act in a liaison capacity with the East and West Coast Regional Scheduling Committees.

On acceptance by UNOLS, the Chairman noted that nominations had been received and were open for Chairman, UNEPC, to be elected for a three year, renewable term. Dr. George Shor, Jr. was nominated.

Dr. George Shor, Jr. was elected Chairman, UNOLS National Expeditionary Planning Committee.

UNOLS Charter and Membership: The membership was notified that the Advisory Council has decided that the UNOLS Charter should be examined to assess its pertinence and efficacy. If examination reveals the need, the Council will recommend revisions. In particular, the Council will examine issues of membership and membership criteria. Other issues that have been raised recently are the designation of UNOLS ships and criteria for inclusion in the UNOLS fleet, roles of the Advisory Council and Executive Committee, and the functional emphasis of UNOLS.

University of Texas representatives joined by other Members raised their request that the FRED H. MOORE be designated a UNOLS ship. Although there was spirited discussion and their request was credible, action was deferred until a better understanding was reached concerning UNOLS prerogatives and a working definition of UNOLS ships was reached. These issues will be addressed in considering Charter revision.

Old Dominion University application for Associate Membership: The Advisory Council's recommendation that Old Dominion University be accepted as an Associate Member was before the membership.

The UNOLS Membership accepted Old Dominion University as an Associate Member.

UNOLS Elections: A nominating committee of Warren Wooster, Chairman, Rita Colwell and Joseph Reid had developed a slate for UNOLS Chairman, Vice Chairman and three members of the Advisory Council (Appendix XV). *The results of elections were:*

Chairman, UNOLS	*Ferris Webster*
Vice Chairman, UNOLS	*Joseph Curray*
Advisory Council,	
from Members	*Robertson Dinsmore*
	Charles Miller
from Associate Members	*Harrison B. Stewart, Jr.*

After the election results were announced, the UNOLS Membership thanked Dr. Derek Spencer and commended him for his service and leadership during the two years that he served as Chairman, UNOLS.

Appointment to ALVIN Review Committee: The ALVIN Review Committee, at their April, 1983, meeting had considered replacements for two Committee members whose terms expire.

Their recommendations for replacements were:

Daniel E. Karig
Peter A. Jumars

Their appointments were affirmed by the assembled membership.

Other Business: The Chairman noted that three resolutions concerning International Restrictions to Ocean Science Research had been placed before the UNOLS membership. One of these, in response to H.R. 703, legislation to facilitate marine research had raised objections, since it was effectively preempted by the President's Proclamation. That response was withdrawn from UNOLS consideration.

A resolution on International Restrictions to Ocean Science Research was adopted by UNOLS:

UNOLS STATEMENT
ON
INTERNATIONAL RESTRICTIONS TO
OCEAN SCIENCE RESEARCH

Scientific inquiry and the knowledge gained therefrom is of fundamental importance to all mankind. The ocean sciences, throughout the world, potentially face restrictions which may seriously limit access to oceanic and coastal regions critical to scientific inquiry. The Law of the Sea convention and recent jurisdictional claims of nation states with regard to marine scientific research provide the context for these concerns. Since the U.S. has not signed the convention, special arrangements are required for U.S. scientists to obtain access to areas under foreign jurisdictions and governed by the convention.

Therefore, we urge the United States Government to adopt and implement the following policy principles for the United States of America:

1. *Recognize the jurisdictional claims, consistent with the Law of the Sea Convention, of other coastal nations over marine science research.*

2. *Permit access for marine scientific research by scientists of any nation within those coastal and oceanic areas beyond the territorial sea under U.S. jurisdiction.*

3. *Initiate efforts in selected geographic areas to develop bilateral and/or regional arrangements to facilitate marine scientific research in selected areas.*

4. *Process and facilitate clearance requests for U.S. academic institutions that wish to conduct research within the coastal regions under jurisdiction of other nation states.*

A resolution supporting efforts to attain bilateral agreement on marine research, especially and urgently with Mexico and Canada was adopted by UNOLS:

Academic research at sea in waters claimed by other nations has in recent years been beset with contradictions, delays, and uncertainties in obtaining clearance, due to the lack of general agreement on the legal regime. We are glad to see the situation clarified by President Reagan's Proclamation and Statement on the Exclusive Economic Zone of the United States of America and also, in the accompanying fact sheet, the comment that "The Department of State will take steps to facilitate access by U.S. scientitists to foreign EEZs under reasonable conditions". To define these reasonable conditions and to remove the delays and uncertainties inherent in the present system, bilateral agreements are needed, most particularly with those nations whose waters are the subject of frequent scientific studies. We, therefore, urge the Department of State to initiate the negotiation of such agreements, in the first instance with the Republic of Mexico, and subsequently with Canada and other appropriate countries. UNOLS and its member institutions are ready to assist in the definition of conditions and arrangements that are most likely to facilitate research and promote cooperation with coastal state scientists.

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

APPENDIX I

UNIVERSITY-NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

SEMIANNUAL MEETING

AGENDA

0900, Thursday, May 26, 1983

NATIONAL ACADEMY OF SCIENCES, LECTURE ROOM

2101 CONSTITUTION AVENUE N.W., WASHINGTON, D.C.

INTRODUCTION AND WELCOME - *Dr. Derek Spencer, Chairman, UNOLS.*

UNOLS ADVISORY COUNCIL REPORT - *Dr. Bruce R. Robison will report on the Council's activities, especially their reexamination of the October, 1982 Report "Composition, Distribution and Management of the UNOLS Fleet".*

THE U.S.-FRANCE COOPERATIVE PROGRAM IN OCEANOGRAPHY - *Cooperative use of ships and facilities, Monsieur Jean-Pierre de Longeau, Chef du Service des Operations Navales, Direction de la Flotte, CNEXO, Paris.*

ALVIN REVIEW COMMITTEE REPORT - *Delivered by William D. Barbee.*

OUTLOOK FOR FY 1984-1985 SHIP AND PROGRAM SUPPORT - *Forecasts by Federal Funding Agencies.*

1200 - 1400 *LUNCH BREAK* *OPEN*

REPORT ON INTERNATIONAL RESTRICTIONS ON OCEAN SCIENCE RESEARCH - *Dr. David Ross, Committee Member, will report on Committee Activities, including a UNOLS Policy Statement, Response to Proposed Legislation, and Statement on Bilaterals.*

PERMITS FOR RESEARCH IN OCEAN REGIONS RESTRICTED BY FOREIGN STATES - *An overview.*

UNOLS NATIONAL EXPEDITIONARY PLANNING PROCESS - *Dr. Derek Spencer will present the proposed process to the membership for their consideration. UNOLS actions on the process will be at the Business Meeting, May 27.*

REPORT FROM EAST-WEST REGIONAL SHIP SCHEDULING GROUPS -

- *The East and West Regional Ship Scheduling Groups, having met separately and jointly, will present the results of their scheduling efforts for 1984 to UNOLS Members.*
- *The session is open to all persons interested and especially to scientists who have ship time needs in 1984 and 1985, and who wish to present their needs to operators.*

UNOLS BUSINESS MEETING
0830, Friday, May 27, 1983
NATIONAL ACADEMY OF SCIENCES, ROOM 150

UNOLS OFFICE ACTIVITIES - *Report of the year's activities, William D. Barbee.*

NATIONAL EXPEDITIONARY PLANNING PROCESS - *Discussion by the Membership concerning adoption of the process, selection and election of a Chairman.*

UNOLS CHARTER AND MEMBERSHIP - *A discussion by the Membership and Executive Committee to consider UNOLS Charter, Member and Associate Member criteria revision.*

CANDIDATE FOR ASSOCIATE MEMBERSHIP - *Old Dominion University's application for Associate Membership is before the Membership for their action.*

ELECTION OF CHAIRMAN AND VICE CHAIRMAN, UNOLS - *Slates of Nominations have been distributed.*

ELECTION OF THREE MEMBERS TO ADVISORY COUNCIL - *Slates for two Council Members to represent Member Institutions and one representing Associate Members have been distributed.*

APPOINTMENT OF TWO MEMBERS TO ALVIN REVIEW COMMITTEE - *Recommendations from the ALVIN Review Committee will be presented for UNOLS action.*

OTHER BUSINESS.

UNOLS Semiannual Meeting
Washington, D.C.
May 26, 27, 1983
Registered Attendees

Captain Richard E. Alderman, NOAA
Thomas C. Aldrich, U.S. Geological Survey
William Barbee, UNOLS Office
John F. Bash, University of Rhode Island
Lawrence E. Brandt, National Science Foundation
William Bruning, National Science Foundation
*Douglas R. Caldwell, Oregon State University
*J. Frisbee Campbell, University of Hawaii
Larry Clark, National Science Foundation
Bruce K. Cornwall, Johns Hopkins University, CBI
Joseph R. Curray, Scripps Institution of Oceanography
*Thomas A. Davies, University of Texas at Austin
Jean-Pierre de Longueau, Chef Operations Navales, CNEXO, France
E. R. (Dolly) Dieter, University of Alaska
Captain R. D. Dinsmore, Woods Hole Oceanographic Institution
John D. Donnelly, Woods Hole Oceanographic Institution
*Elgin A. Dunnington, University of Maryland
William Erb, Department of State
Commander Rene E. Gonzalez, Jr., Office of Naval Research
Donn S. Gorsline, University of Southern California
*James Griffin, University of Rhode Island
*Lawrence W. Harding, Jr., Johns Hopkins University, CBI
Thomas C. Johnson, Duke/University of North Carolina
*Jay T. Katz, University of Michigan
Keith Kaulum, Office of Naval Research
Ronald La Count, National Science Foundation
*Marcus G. Langseth, Lamont-Doherty Geological Observatory
Roger L. Larson, University of Rhode Island
*Brian T.R. Lewis, University of Washington
*John H. Martin, Moss Landing Marine Laboratories
John G. McMillan, National Science Foundation

*David Menzel, Skidaway Institute of Oceanography
Charles B. Miller, Oregon State University
William H. Mitchell, University of Texas at Austin
Rear Admiral Robert C. Munson, NOAA
Robert M. Owen, University of Michigan
Wadsworth Owen, University of Delaware
Joe S. Pilleria, U.S. Geological Survey
*Bruce H. Robison, University of California at Santa Barbara
David Ross, Woods Hole Oceanographic Institution
*Thomas C. Royer, University of Alaska
*Richard W. Schneider, University of Delaware
Allen M. Shinn, Jr., National Science Foundation
*George G. Shor, Jr., Scripps Institution of Oceanography
*Derek Spencer, Woods Hole Oceanographic Institution
Commander John D. Stachelhaus, NOAA
Mitchell Stebens, UNOLS Office
Lee R. Stevens, U.S. Department of State
Alexander L. Sutherland, National Science Foundation
Kathy Tollerton, NASULGC
Sandra D. Toye, National Science Foundation
*T. K. Treadwell, Texas A&M University
*Joseph F. Ustach, Duke/University of North Carolina
*John Van Leer, University of Miami
Richard C. Vetter, NAS/NRC
Robert Wall, National Science Foundation
*Don M. Walsh, University of Southern California
Captain J. Boyce Watkins, University of Washington
Ferris Webster, University of Delaware
Richard W. West, National Science Foundation
*Terry E. Whitledge, Brookhaven National Laboratory
Carolyn A. Willis, U.S. Geological Survey

*Member, Associate Member Representative

6/83

UNOLS DIRECTORY
(with designated representatives)

MEMBERS

UNIVERSITY OF ALASKA
Dr. Thomas C. Royer

UNIVERSITY OF DELAWARE
Dr. William S. Gaither

DUKE/UNIVERSITY OF NORTH CAROLINA
Dr. Dirk Frankenberg

UNIVERSITY OF HAWAII
Dr. Charles E. Helsley

THE JOHNS HOPKINS UNIVERSITY
Dr. Lawrence Harding

COLUMBIA UNIVERSITY, LAMONT-DOHERTY GEOLOGICAL OBSERVATORY
Dr. Marcus Langseth

UNIVERSITY OF MIAMI, ROSENSTIEL SCHOOL OF MARINE AND ATMOSPHERIC SCIENCE
Mr. James Gibbons

UNIVERSITY OF MICHIGAN, GREAT LAKES AND MARINE WATERS CENTER
Dr. Alfred M. Beeton

OREGON STATE UNIVERSITY
Dr. Douglas Caldwell

UNIVERSITY OF RHODE ISLAND
Dr. James J. Griffin

UNIVERSITY OF CALIFORNIA, SAN DIEGO SCRIPPS INSTITUTION OF OCEANOGRAPHY
Dr. George G. Shor, Jr.

UNIVERSITY SYSTEM OF GEORGIA SKIDAWAY INSTITUTE OF OCEANOGRAPHY
Dr. David W. Menzel

UNIVERSITY OF SOUTHERN CALIFORNIA
Dr. Don Walsh

UNIVERSITY OF TEXAS
Dr. Arthur E. Maxwell

TEXAS A & M UNIVERSITY
Captain T. K. Treadwell

UNIVERSITY OF WASHINGTON
Dr. Brian Lewis

WOODS HOLE OCEANOGRAPHIC INSTITUTION
Dr. Derek W. Spencer

ASSOCIATE MEMBERS

UNIVERSITY OF ALABAMA
Dr. George F. Crozier

BERMUDA BIOLOGICAL STATION
Dr. Wolfgang E. Sterrer

BIGELOW LABORATORY FOR OCEAN SCIENCES
Dr. Charles S. Yentsch

BROOKHAVEN NATIONAL LABORATORY
Dr. Terry E. Whitledge

UNIVERSITY OF CALIFORNIA, SANTA BARBARA
Dr. Bruce H. Robison

CAPE FEAR TECHNICAL INSTITUTE
Mr. Edward Foss

ASSOCIATE MEMBERS (CONT'D)

UNIVERSITY OF CONNECTICUT
Professor Sung Feng

FLORIDA INSTITUTE FOR OCEANOGRAPHY
Dr. William W. Behrens

FLORIDA INSTITUTE OF TECHNOLOGY
Mr. Jack Morton

FLORIDA STATE UNIVERSITY
Dr. George W. Flagler

HARBOR BRANCH FOUNDATION
Dr. Robert S. Jones

HOBART & WILLIAM SMITH COLLEGES
Mr. F. Richard Wilkins

LEHIGH UNIVERSITY
Dr. Adrian F. Richards

UNIVERSITY OF MAINE
Dr. Bernard J. McAlice

MARINE SCIENCE CONSORTIUM
Dr. Robert W. Hinds

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Dr. John M. Edmond

MOSS LANDING MARINE LABORATORIES
Dr. John H. Martin

UNIVERSITY OF NEW HAMPSHIRE
Professor E. Eugene Allmendinger

NEW YORK STATE UNIVERSITY COLLEGE AT BUFFALO
Dr. Robert A. Sweeney

NEW YORK STATE UNIVERSITY AT STONY BROOK
Dr. J.R. Schubel

NORTH CAROLINA STATE UNIVERSITY
Dr. Robert H. Weisberg

UNIVERSITY OF NORTH CAROLINA AT WILMINGTON
Dr. Robert Y. George

NOVA UNIVERSITY
Dr. George E. Lawniczak

OCCIDENTAL COLLEGE
Dr. John S. Stephens, Jr.

OLD DOMINION UNIVERSITY
Dr. Harris B. Stewart, Jr.

UNIVERSITY OF PUERTO RICO
Dr. Thomas Tosteson

SAN DIEGO STATE UNIVERSITY
Dr. Richard F. Ford

VIRGINIA INSTITUTE OF MARINE SCIENCE
Dr. John M. Zeigler

WALLA WALLA COLLEGE
Dr. Lawrence McCloskey

UNIVERSITY OF WISCONSIN AT MADISON
Dr. Robert A. Ragotzkie

UNIVERSITY OF WISCONSIN AT MILWAUKEE
Dr. David N. Edgington

THE UNIVERSITY-NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM
LIST OF RESEARCH VESSELS (>20M) OPERATED BY UNOLS INSTITUTIONS

3/83

OPERATOR	NAME	LOA (FT/M)	BUILT/ CONVERTED	NUMBER OF SCIENTISTS	OWNER	SHIP SCHEDULING CONTACT
University of Hawaii Hawaii Institute of Geophysics 2525 Correa Road Honolulu, Hawaii 96822	KANA KEOKI MOANA WAVE	156/48 174/53	1967 1973	16 13	U.H. NAVY	Mr. J. Frisbee Campbell Scientific Coordinator for Marine Operations (808) 948-7654
University of Alaska Institute of Marine Science Fairbanks, Alaska 99701	ALPHA HELIX	133/41	1966	15	NSF	Professor Thomas C. Royer Associate Professor (907) 474-7835
University of Washington School of Oceanography, WB-10 Seattle, Washington 98195	T.G. THOMPSON HOH ONAR	209/64 65/20 65/20	1965 1943/1962 1954/1963	19 6 6	NAVY NAVY NAVY	Dr. Brian T.R. Lewis Assoc. Dir. for Research (206) 545-0923
Oregon State University School of Oceanography Corvallis, Oregon 97331	WECOMA	177/54	1975	16	NSF	Ms. Mary Jo Gutierrez Ship Scheduling Officer (503) 754-4447
Moss Landing Marine Laboratories P.O. Box 223 Moss Landing, California 95039	CAYUSE	80/24	1968	8	NSF	Miss Gail Liragis Ship Scheduler (408) 633-3304
University of Southern California Inst. for Marine & Coastal Studies Los Angeles, California 90089-0341	VELERO IV	110/34	1948	12	USC	Mr. Don Keach Ship Scheduler (213) 743-7735
University of California, San Diego Scripps Institution of Oceanography La Jolla, California 92093	MELVILLE T. WASHINGTON NEW HORIZON E.B. SCRIPPS	245/75 209/64 170/52 95/29	1970 1965 1978 1965	31 23 13 8	NAVY NAVY U.C. U.C.	Dr. George Shor, Jr. Ship Scheduler Code A-010 (619) 452-2840
University of Michigan Great Lakes & Marine Waters Center Ann Arbor, Michigan 48109	LAURENTIAN	80/24	1974	10	U.M.	Mr. Clifford Tetzloff Marine Superintendent (313) 763-3183
Texas A & M University Department of Oceanography College Station, Texas 77843	GYRE	174/53	1973	19	NAVY	Captain T.K. Treadwell Marine Operations Officer (409) 845-7211
The University of Texas Port Aransas Marine Laboratory Port Aransas, Texas 78373	LONGHORN	80/24	1971	10	U.T.	Mr. John H. Thompson Assoc. Director - Admin. (512) 749-6760
University of Miami, R.S.M.A.S. 4600 Rickenbacker Causeway Miami, Florida 33149	ISELIN CAPE FLORIDA CALANUS	170/52 135/41 64/20	1972 1981 1971	13 12 6	U.M. NSF U.M.	Mr. James Gibbons Operations Manager (305) 350-7223
University System of Georgia Skidaway Institute of Oceanography P.O. Box 13687 Savannah, Georgia 31416-0687	BLUE FIN	72/22	1972/1975	8	U.G.	Dr. David W. Menzel Director (912) 356-2480
Duke/UNC Oceanographic Consortium Duke University Marine Laboratory Beaufort, North Carolina 28516	CAPE HATTERAS	135/41	1981	12	NSF	Captain Eric B. Nelson Marine Superintendent (919) 728-3372
The Johns Hopkins University Chesapeake Bay Institute Shady Side, Maryland 20764	R. WARFIELD	106/32	1967	10	J.H.U.	Mr. Bruce Cornwall Marine Superintendent (301) 867-7550, Ext. 246
University of Delaware College of Marine Studies Lewes, Delaware 19958	CAPE HENLOPEN	120/37	1975	12	U.D.	Mr. Wadsworth Owen Dir. of Marine Operations (302) 645-4320
Columbia University Lamont-Doherty Geological Observatory Palisades, New York 10964	CONRAD	209/64	1962	16	NAVY	Dr. Jeffrey Weissel Ship Scheduler (914) 359-2900, Ext. 533
University of Rhode Island Graduate School of Oceanography Narragansett, Rhode Island 02881	ENDEAVOR	177/54	1976	16	NSF	Mr. John F. Bash Ship Scheduler (401) 792-6203
Woods Hole Oceanographic Institution Woods Hole, Massachusetts 02543	KNORR ATLANTIS II OCEANUS DSRV ALVIN	245/75 210/64 177/54 25.8	1969 1963 1975 1964	23 25 12 2	NAVY WHOI NSF NAVY	Mr. John D. Donnelly Manager of Marine Ops. (617) 548-1400, Ext. 2510

UNOLS RESEARCH VESSELS FLEET OPERATIONS - 1982 -

CRUISE DAYS PROFILES

04/05/83

AGENCY	PHYS OCEAN	ACCOU STICS	CHEM OCEAN	BIOL OCEAN	ENVIR ECOL	FISH INVST	CLIM METEO	GEOLO GEOPH	MAP CHRTG	OCEAN ENGRG	TRAIN ING	TRANS NONSCI	TOTAL
NATL SCIENCE FNDTN	600	50	587	891	221	6	0	625	0	30	31	25	3066
OFF. NAVAL RESEARCH	155	5	12	9	3	0	0	203	0	11	0	19	417
U.S. GEOL. SURVEY	0	0	0	10	0	0	0	48	14	0	0	16	88
BUR. LAND MNGMT.	75	0	7	33	0	0	0	26	0	0	0	2	143
NATL OCEAN/ATMOSPH	25	4	0	0	28	0	0	0	0	0	0	0	57
DEPT OF ENERGY	4	0	24	51	26	0	0	17	0	0	0	0	122
OTHER FEDERAL	0	0	0	0	0	0	0	0	0	0	0	0	0
STATE/MUNICIPAL	31	0	36	66	7	29	0	63	5	0	110	1	348
OTHER/PRIVATE	10	6	4	9	0	1	0	126	2	0	0	0	158
TOTALS	900	65	670	1069	285	36	0	1108	21	41	141	63	4399
PERCENT	20.5	1.5	15.2	24.3	6.5	.8	0.0	25.2	.5	.9	3.2	1.4	100.0

UNOLS RESEARCH VESSELS FLEET OPERATIONS - 1982 -

CRUISE DAYS PROFILES

04/05/83

INSTITUTION	PHYS OCEAN	ACCOU STICS	CHEM OCEAN	BIOL OCEAN	ENVIR ECOL	FISH INVST	CLIM METEO	GEOLO GEOPH	MAP CHRTG	OCEAN ENGRG	TRAIN ING	TRANS NONSCI	TOTAL
UNIV. HAWAII	0	0	28	11	0	0	0	152	0	0	0	1	192
UNIV. ALASKA	64	0	20	85	0	0	0	6	0	0	2	0	177
UNIV. WASHINGTON	183	0	48	93	0	1	0	64	0	0	19	23	431
OREGON STATE UNIV.	168	0	36	16	0	0	0	16	0	0	0	0	236
SCRIPPS INST. OCEAN	40	6	90	194	86	0	0	338	2	0	10	0	766
UNIV. SO. CALIF.	1	36	6	54	0	6	0	44	0	0	0	0	147
TEXAS A&M UNIV.	16	0	76	34	0	0	0	45	14	0	18	33	236
UNIV. TEXAS	1	0	0	5	7	29	0	5	0	0	11	0	58
UNIV. MIAMI, RSMAS	38	0	118	171	0	0	0	31	0	0	0	0	358
UNIV GA., SKIDAWAY	8	6	45	54	15	0	0	3	5	0	0	0	136
DUKE UNIV./UNC	34	0	66	56	0	0	0	26	0	0	69	0	251
JOHNS HOPKINS UNIV.	0	0	0	97	0	0	0	0	0	0	0	0	97
UNIVERSITY DELAWARE	76	12	23	2	23	0	0	26	0	0	1	0	163
LAMONT-DOHERTY GEOL	35	0	47	0	0	0	0	196	0	0	0	6	284
UNIV. RHODE ISLAND	164	0	0	30	24	0	0	30	0	0	0	0	248
WOODS HOLE OCEAN. I	17	0	67	105	130	0	0	123	0	41	0	0	483
MOSS LANDING MAR LAB	55	5	0	62	0	0	0	3	0	0	11	0	136
TOTALS	900	65	670	1069	285	36	0	1108	21	41	141	63	4399
PERCENT	20.5	1.5	15.2	24.3	6.5	.8	0.0	25.2	.5	.9	3.2	1.4	100.0

UNOLS RESEARCH VESSELS FLEET OPERATIONS - 1982 -

OPERATIONAL DAYS CHARGED BY SPONSOR

VESSEL	LOA	NATL SCI. FNDTN	OFF. NAVAL RES.	U.S. GEOL SURV.	BUR. LAND MNGMT	NATL OCEAN ATMOS	DEPT OF ENRGY	OTHER FEDER FUNDS	STATE OR MUNIC	PRIV/ FORGN FUNDS	TOTALS
MELVILLE	245FT	175	0	0	0	0	0	0	0	0	175
KNORR	245FT	219	39	0	0	0	0	0	0	0	258
CONRAD	209FT	278	6	0	0	0	0	0	0	0	284
T.G. THOMPSON	209FT	202	67	0	0	0	0	0	0	0	269
T. WASHINGTON	209FT	82	56	0	0	0	0	0	11	91	240
ENDEAVOR	177FT	185	29	0	13	0	21	0	0	0	248
OCEANUS	177FT	178	28	10	0	0	0	0	0	9	225
WECOMA	177FT	203	0	0	0	0	16	0	0	17	236
GYRE	174FT	84	15	75	29	0	0	0	30	3	236
NEW HORIZON	170FT	152	35	0	0	0	7	0	48	0	242
KANA KEOKI	156FT	73	73	0	0	0	14	0	32	0	192
CAPE FLORIDA	135FT	188	15	0	0	0	0	0	0	0	203
CAPE HATTERAS	135FT	163	21	0	0	0	0	0	67	0	251
ALPHA HELIX	133FT	147	10	0	0	0	0	0	20	0	177
CAPE HENLOPEN	120FT	10	0	0	101	28	0	0	23	1	163
VELERO IV	110FT	134	0	3	0	0	0	0	0	10	147
R. WARFIELD	106FT	97	0	0	0	0	0	0	0	0	97
E.B. SCRIPPS	95FT	82	17	0	0	0	0	0	10	0	109
CAYUSE	80FT	79	5	0	0	0	25	0	27	0	136
LONGHORN	80FT	0	0	0	0	5	0	0	51	2	58
BLUEFIN	72FT	90	0	0	0	0	32	0	8	6	136
HOH	65FT	18	1	0	0	0	5	0	6	0	30
ONAR	65FT	111	0	0	0	1	2	0	15	3	132
CALANUS	64FT	116	0	0	0	23	0	0	0	16	155
TOTALS		3066	417	88	143	57	122	0	348	158	4399
PERCENT		69.7	9.5	2.0	3.3	1.3	2.8	0.0	7.9	3.6	100.0

UNOLS RESEARCH VESSELS FLEET OPERATIONS - 1982 -

CRUISE DAYS PROFILES

04/05/83

VESSEL	PHYS OCEAN	ACCOU STICS	CHEM OCEAN	BIOL OCEAN	ENVIR ECOL	FISH INVST	CLIM METEO	GEOLO GEOPH	MAP CHRTG	OCEAN ENGRG	TRAIN ING	TRANS NONSCI	TOTAL
MELVILLE	0	0	70	34	37	0	0	34	0	0	0	0	175
KNORR	0	0	67	19	78	0	0	94	0	0	0	0	258
CONRAD	35	0	47	0	0	0	0	196	0	0	0	6	284
T.G. THOMPSON	159	0	11	29	0	0	0	47	0	0	0	23	269
T. WASHINGTON	0	6	0	0	0	0	0	232	2	0	0	0	240
ENDEAVOR	164	0	0	30	24	0	0	30	0	0	0	0	248
OCEANUS	17	0	0	86	52	0	0	29	0	41	0	0	225
WECOMA	168	0	36	16	0	0	0	16	0	0	0	0	236
GYRE	16	0	76	34	0	0	0	45	14	0	18	33	236
NEW HORIZON	26	0	20	121	48	0	0	20	0	0	7	0	242
KANA KEOKI	0	0	28	11	0	0	0	152	0	0	0	1	192
CAPE FLORIDA	15	0	72	116	0	0	0	0	0	0	0	0	203
CAPE HATTERAS	34	0	66	56	0	0	0	26	0	0	69	0	251
ALPHA HELIX	64	0	20	85	0	0	0	6	0	0	2	0	177
CAPE HENLOPEN	76	12	23	2	23	0	0	26	0	0	1	0	163
VELERO IV	1	36	6	54	0	6	0	44	0	0	0	0	147
R. WARFIELD	0	0	0	97	0	0	0	0	0	0	0	0	97
E.P. SCRIPPS	14	0	0	39	1	0	0	52	0	0	3	0	109
CAYUSE	55	5	0	62	0	0	0	3	0	0	11	0	136
LONGHORN	1	0	0	5	7	29	0	5	0	0	11	0	58
BLUEFIN	8	6	45	54	15	0	0	3	5	0	0	0	136
HOH	4	0	7	11	0	0	0	2	0	0	6	0	30
ONAR	20	0	30	53	0	1	0	15	0	0	13	0	132
CALANUS	23	0	46	55	0	0	0	31	0	0	0	0	155
TOTALS	900	65	670	1069	285	36	0	1108	21	41	141	63	4399
PERCENT	20.5	1.5	15.2	24.3	6.5	.8	0.0	25.2	.5	.9	3.2	1.4	100.0

UNOLS RESEARCH VESSELS FLEET OPERATIONS - 1982 -

OPERATIONAL DAYS CHARGED BY SPONSOR

INSTITUTION	NATL SCI. FNDTN	OFF. NAVAL RES.	U.S. GEOL SURV.	BUR. LAND MNGMT	NATL OCEAN ATMOS	DEPT OF ENRGY	OTHER FEDER FUNDS	STATE OR MUNIC	PRIV/ FORGN FUNDS	TOTALS
UNIV. HAWAII	73	73	0	0	0	14	0	32	0	192
UNIV. ALASKA	147	10	0	0	0	0	0	20	0	177
UNIV. WASHINGTON	331	68	0	0	1	7	0	21	3	431
OREGON STATE UNIV.	203	0	0	0	0	16	0	0	17	236
SCRIPPS INST. OCEAN	491	108	0	0	0	7	0	69	91	766
UNIV. SO. CALIF.	134	0	3	0	0	0	0	0	10	147
TEXAS A&M UNIV.	84	15	75	29	0	0	0	30	3	236
UNIV. TEXAS	0	0	0	0	5	0	0	51	2	58
UNIV. MIAMI. RSMAS	304	15	0	0	23	0	0	0	16	358
UNIV GA., SKIDAWAY	90	0	0	0	0	32	0	8	6	136
DUKE UNIV./UNC	163	21	0	0	0	0	0	67	0	251
JOHNS HOPKINS UNIV.	97	0	0	0	0	0	0	0	0	97
UNIVERSITY DELAWARE	10	0	0	101	28	0	0	23	1	163
LAMONT-DOHERTY GEOL	278	6	0	0	0	0	0	0	0	284
UNIV. RHODE ISLAND	185	29	0	13	0	21	0	0	0	248
WOODS HOLE OCEAN. I	397	67	10	0	0	0	0	0	9	483
MOSS LANDING MAR LAB	79	5	0	0	0	25	0	27	0	136
TOTALS	3066	417	88	143	57	122	0	348	158	4399
PERCENT	69.7	9.5	2.0	3.3	1.3	2.8	0.0	7.9	3.6	100.0

UNOLS RESEARCH VESSELS FLEET OPERATIONS - 1982 -

PROJECT PERSON-DAYS AT SEA BY SPONSOR

04/05/83

VESSEL	LOA	TOTAL DAYS CHRGD	NATL SCI. FNDTN	OFF. NAVAL RES.	U.S. GEOL. SURV.	BUR. LAND MNGMT	NATL OCEAN ATMOS	DEPT. OF ENRGY	OTHER FEDER FUNDS	STATE OR MUNIC	PRIV/ FORGN FUNDS	TOTALS
MELVILLE	245	175	3694	0	0	0	0	0	0	0	0	3694
KNORR	245	258	4655	576	0	0	0	0	0	0	0	5231
CONRAD	209	284	1135	0	0	0	0	0	0	0	0	1135
T.G. THOMPSON	209	269	2087	675	0	0	0	0	0	0	0	2762
T. WASHINGTON	209	240	2325	1752	0	0	0	0	0	1005	1637	6719
ENDEAVOR	177	248	2560	354	0	195	0	528	0	0	0	3637
OCEANUS	177	225	1784	468	336	120	0	0	0	0	103	2811
WECOMA	177	236	2558	0	0	0	0	375	0	0	300	3233
GYRE	174	236	3187	0	730	1340	0	0	0	362	0	5619
NEW HORIZON	170	242	1720	1198	0	0	0	200	0	545	0	3663
KANA KEOKI	156	192	1058	1400	0	0	0	196	0	152	0	2806
CAPE FLORIDA	135	203	1764	142	0	0	0	0	0	0	0	1906
CAPE HATTERAS	135	251	1842	213	0	0	0	0	0	1270	0	3325
ALPHA HELIX	133	177	1296	40	0	0	0	0	0	239	24	1599
CAPE HENLOPEN	120	163	56	0	0	1104	324	0	0	405	42	1931
VELERO IV	110	147	799	0	27	0	0	0	0	0	7	833
R. WARFIELD	106	97	731	0	0	0	0	0	0	0	0	731
E.B. SCRIPPS	095	109	803	88	0	0	0	0	0	116	0	1007
CAYUSE	080	136	543	20	0	0	0	225	0	436	0	1224
LONGHORN	080	58	0	0	0	0	12	0	0	555	11	578
BLUEFIN	072	136	228	0	0	0	0	127	0	48	24	427
HOH	065	30	47	2	0	0	0	15	0	69	0	133
ONAR	065	132	480	0	0	0	4	7	0	234	24	749
CALANUS	064	155	619	0	0	0	115	0	0	0	67	801
TOTALS		4399	35971	6928	1093	2759	455	1673	0	5436	2239	56554
PERCENT			63.6	12.3	1.9	4.9	.8	3.0	0.0	9.6	4.0	100.0

Advisory Council Report
July 1982 - June 1983

One year ago, the Advisory Council accepted a charge from NSF and ONR to "develop specific recommendations on a ship-by-ship basis for the composition, distribution and management of the UNOLS fleet in the 1983-1988 time frame".

The chief stimulus for the fleet study was a large projected inbalance between available ship time and funded research programs; which was due, primarily, to an underfunding of research.

I also believe personally, that the feds wanted to see if UNOLS could regulate itself.

During the course of the study, a variety of scenarios and options were developed, and our fleet was scrutinized and analyzed from a variety of different perspectives. As participants in the process, most of you know that our efforts generated considerable discussion and activity; within UNOLS and within the entire oceanographic community.

Indeed, I think there has not been a time since its creation, when UNOLS was more constructively involved in self-evaluation. One of the most important things we learned is that this sort of evaluation should be a continuing process within UNOLS.

Last October, the Advisory Council presented its report to NSF, ONR and UNOLS, with a declaration that the recommendations should be re-evaluated by May, 1983, before any irreversible actions were taken. The Council met again in January and in March to consider the revised funding picture and developments in ship use patterns.

Significant changes in funding and ship use have occurred which necessitated changes in the Council's recommendations. Most important has been an increase in funding for Ocean Science at NSF while the percentage increase for Ocean Science is far less than the increase for NSF overall, the improvement is sufficient to allow utilization of the full UNOLS fleet in 1983 and probably in 1984 as well.

This means that we can now recommend that there be no reductions in the size of the fleet, and that through 1985, the minimum fleet should include 17 vessels in Classes A through D.

Specifically, our previous recommendations for the retirement of MELVILLE and MOANA WAVE are withdrawn. This is due to increased demand for both A and C class vessels; to significant improvement in the operation and performance of MELVILLE, and to the decision by NSF and ONR to refurbish MOANA WAVE. This latter action makes our previous recommendation for transferring ISELIN to Hawaii moot.

Our revision also includes the recommendation that ship categories and regions with excess capacity in 1983 and projected excess capacity for 1984 must be reassessed in Spring, 1984. Full utilization must be realized or retirements and transfers may be indicated in Classes C and D. Specifically, Class C and D ships in the Southeast and Class D ships in the Pacific must reach a fuller utilization.

All other recommendations of last October's Report remain the same.

The fleet study has occupied nearly all of the Advisory Council's attention for the last year - however, since the completion of the report we have begun to get back to normal business.

You may recall that two years ago I reported a reorganization of the Advisory Council into standing roles for its members.

Dirk Frankenberg has completed a report on Research Vessel User Manuals that will be distributed to UNOLS institutions and the funding agencies. The job is done and the standing role has been discontinued.

Donn Gorsline, with the agreement of the Council, has determined that because of differences in modes of operation, scales of purchase, geographic separation and administrative procedures, cooperative bulk purchases for the fleet are, for the most part impractical. The clear exception has been in wire and cable, where bulk purchases have resulted in significant savings, and should be continued. This standing role has also been discontinued.

The standing roles for monitoring the regional ship scheduling groups remain. I will be the council's representative to the west coast group and Bill Sackett's replacement on the Council will join the east coast group.

Joe Curray's role has been to monitor fleet efficiency and effectiveness through the synthesis and evaluation of cruise assessment reports by chief scientists. This has proved to be an effective process and the standing role will continue, with two changes. First, Joe is cycling off the council and must be replaced after the election of new council members; second, the council has resolved that quarterly reports of Research Vessel Cruise Assessments should be prepared by the UNOLS office and submitted to the Council, NSF and ONR.

The standing role on specialized facilities was taken over by Roger Larson when he replaced Tom Rossby on the Council. The Council established a subcommittee consisting of Roger, Charlie Miller, Lou Gordon and Tom Rossby to address the question of specialized instrumentation facilities. The committee will prepare a proposal for the establishment, within NSF, of a program for Cooperative Instrumentation Centers for Oceanographic Research.

The roles concerning replacements, additions and retirements in the fleet included Charlie Miller on ship design and Bob Corell and Derek Spencer on management. Last October, UNOLS adopted the Advisory Council's recommendations for the establishment of a working committee which is now being formed to prepare a detailed replacement schedule. Advisory Council involvement will also continue as part of the continuing process initiated by the fleet study.

The roles concerning replacement and addition of ship's equipment have been wrapped up. Tom Rossby oversaw the Winch and Wire Report that was distributed to UNOLS in March of last year, and a workshop has been held.

Derek Spencer and Bob Corell worked on a successful proposal for a workshop to be held on microcomputers.

John Van Leer has worked on communications and there is now a funded program at the University of Miami to manage and operate a satellite communication system for the fleet. The issue of ship's equipment has been discontinued as separate standing roles but has been integrated into the rearrangement of topics.

The Council has established new standing roles concerned with the identification of new design ideas for observational platforms, to be held by Donn Gorsline and John Van Leer.

The Council has also established a subcommittee on International Restrictions to Ocean Science Research - with Bob Corell as chairman, in another new standing role - the other members of the committee are: Dirk Frankenberg, John Knauss, David Ross and Warren Wooster. David Ross will report to us this afternoon.

Finally, we have moved to implement the National Expeditionary Planning Process, which was developed in the Advisory Council's fleet study. This afternoon, Derek Spencer will present the proposed process to the meeting.

One last point, the Advisory Council decided last night that at its next meeting it would begin to address the problem of revising the UNOLS Charter. There is a scheduled discussion of the Charter tomorrow morning. In addition to that, I ask that you consider the problem and send your ideas to Bill Barbee at the UNOLS Office for delivery to the Council.

Well, that about covers it. We've been busy. I want to thank all of the Council Members for their dedication and hard work during my two years as Council Chairman. Are there any questions?

Woods Hole Oceanographic Institution
Woods Hole, MA 02543
Phone: (617) 548-1400
Telex: 951679

19 April 1983

TO: Mr. John G. McMillan, NSF
Mr. Keith W. Kaulum, ONR
Mr. Elliott A. Finkle, NOAA
Dr. Robert W. Corell, ALVIN Review Committee

This is the third periodic progress report on ALVIN's support ship replacement.

1. Design and Engineering

The design and engineering work continues. Many of the ship's plans must be corrected to incorporate changes which were accomplished from working drawings and sketches.

2. Major Procurement

The bow thruster and motor have been delivered to Woods Hole and will be loaded aboard ATLANTIS II for transport to the installing shipyard.

Caley Hydraulics is continuing with the detailed design of the attachment interface between ALVIN and the hoist system. A continuous two-way flow of drawings and sketches between Caley and the ALVIN Group has been necessary to coordinate the engineering efforts. At the present time it appears that final and satisfactory agreement has been reached on the lift line, latch and stabilization details.

The attached photographs show the A-frame components in manufacture as of 31 March 1983. I plan to visit Caley in Scotland during the week of 25 April to determine the progress for payment purposes. Photographs will record the physical state of manufacture.

3. ATLANTIS II Conversion

Efforts on ATLANTIS II are now directed toward the afterdeck. This includes the laying of track for the ALVIN dolly, preparation of the deck stools and foundations for the A-frame, and relocation of the crane foundation.

4. ALVIN Modifications

The ALVIN frame should be returned to Woods Hole during the week of 25 April 1983. At that time the final fit of ballast tanks and buoyancy material will commence. Additional syntactic foam must be installed to offset the increased weight of the frame. Emmerson and Cummings has not resolved the schedule required for delivery of the new syntactic foam.

Delivery of the overhauled electrical penetraters may effect the completion of ALVIN. This is not a conversion item but routine overhaul; however, it is ultimately interlaced in the total package of work to be accomplished on ALVIN.

5. Other Items

Sea Beam transducers have been delivered to Woods Hole, and will be transported to the shipyard as a deck load.

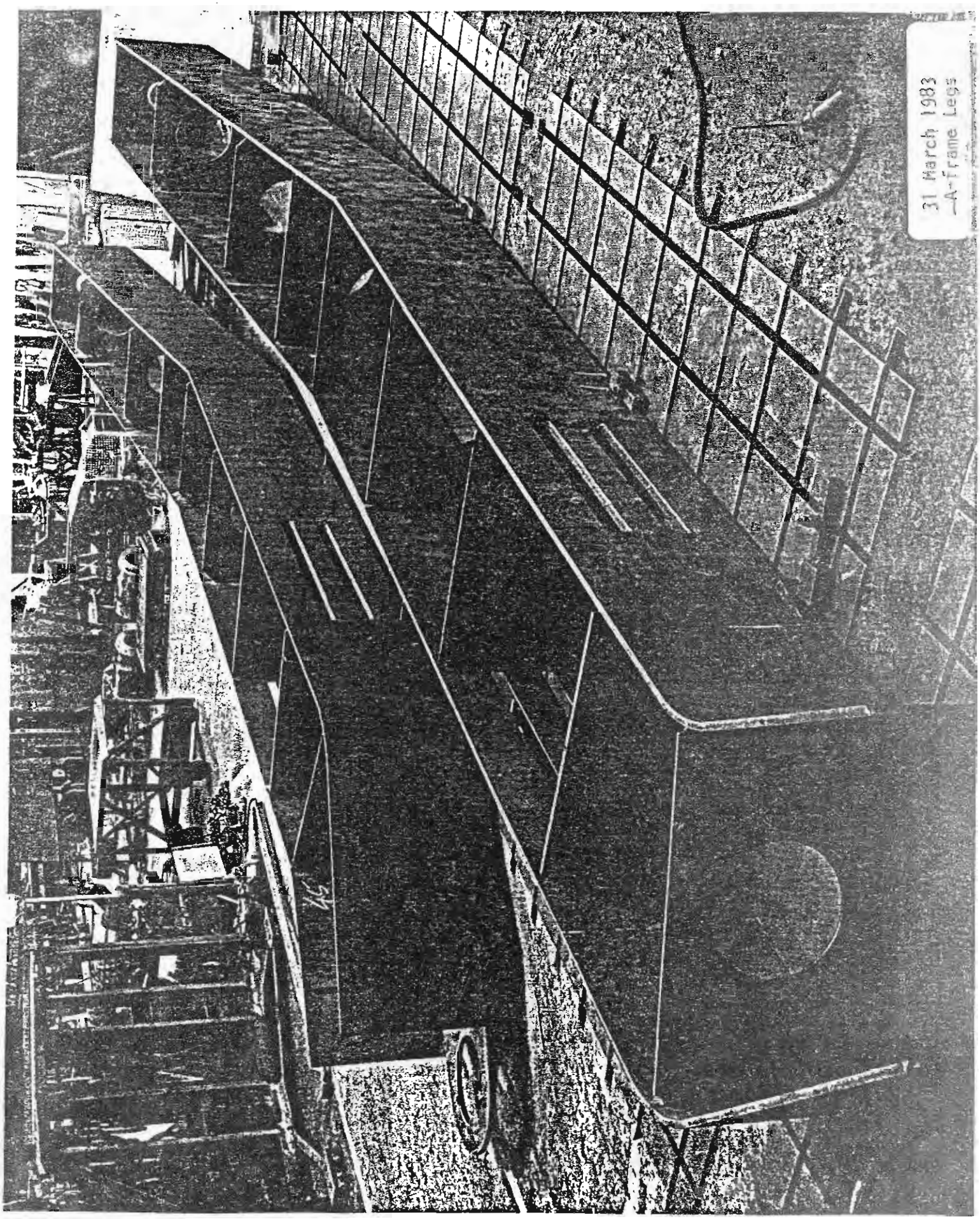
ATLANTIS II drydock and shipyard work has been tentatively scheduled for 20 June through 31 July 1983.

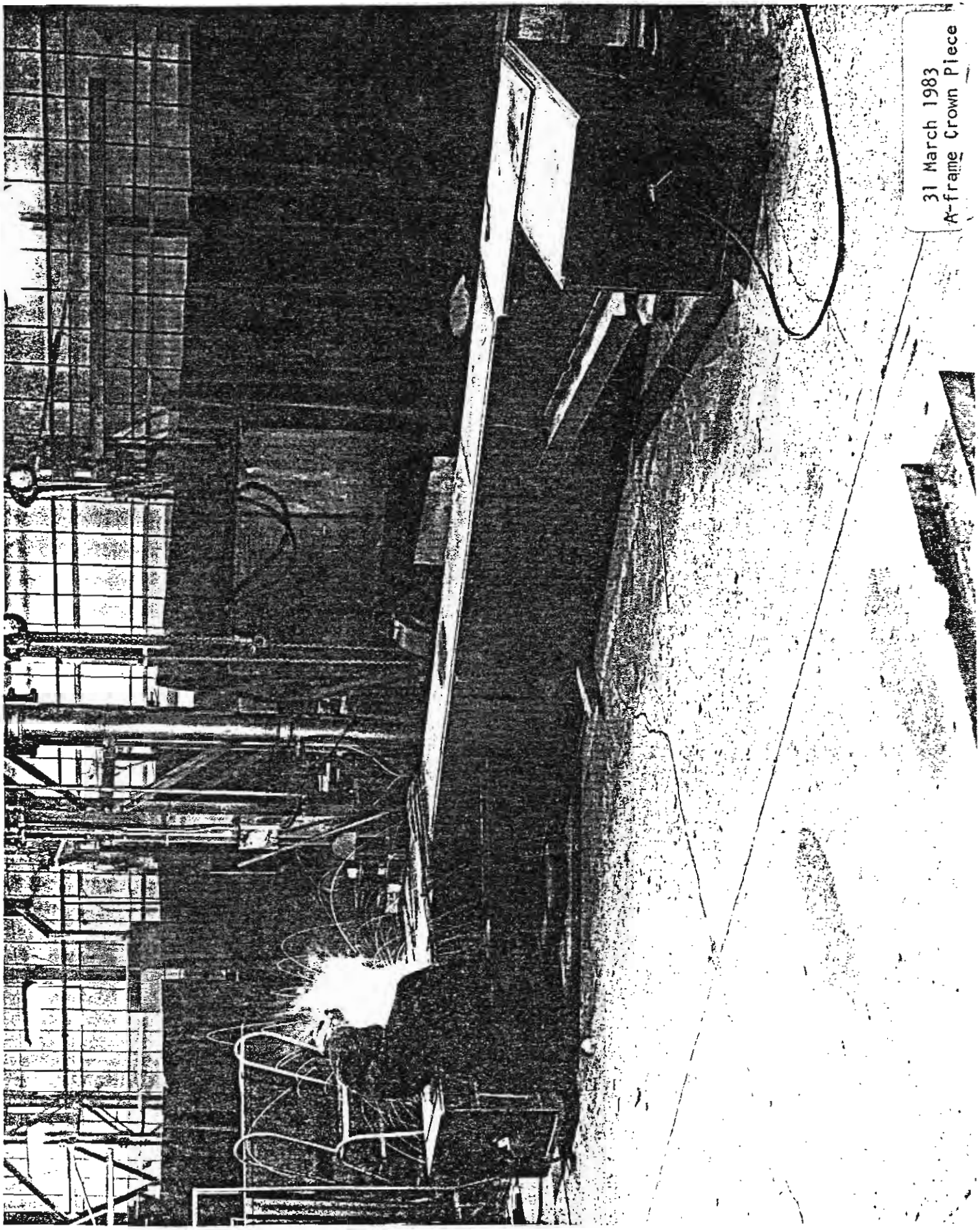
The attached sheet shows the schedule of major tasks and percentage completed.

Sincerely,

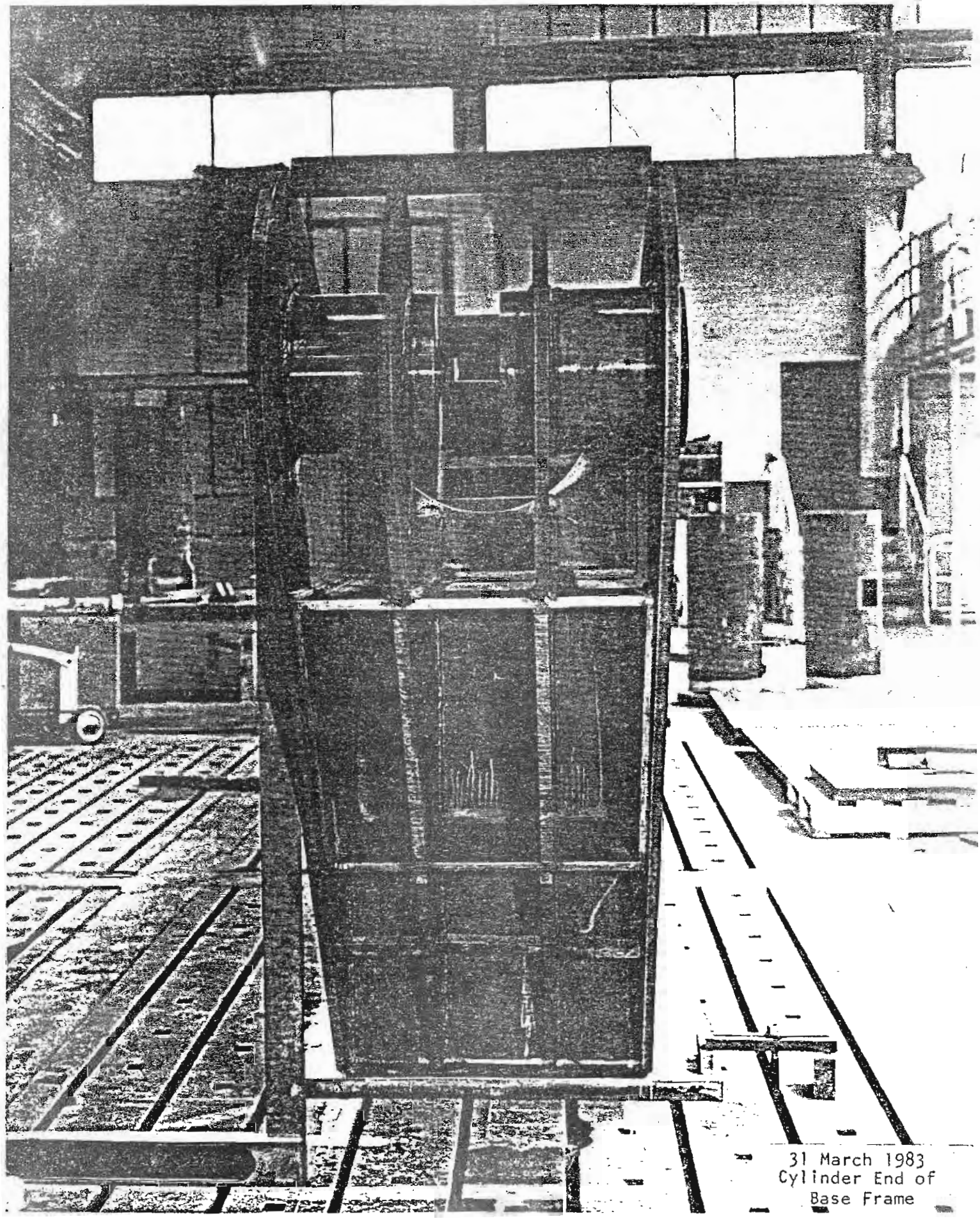
John D. Donnelly
Manager
Marine Operations

JDD:pmc
Encls.

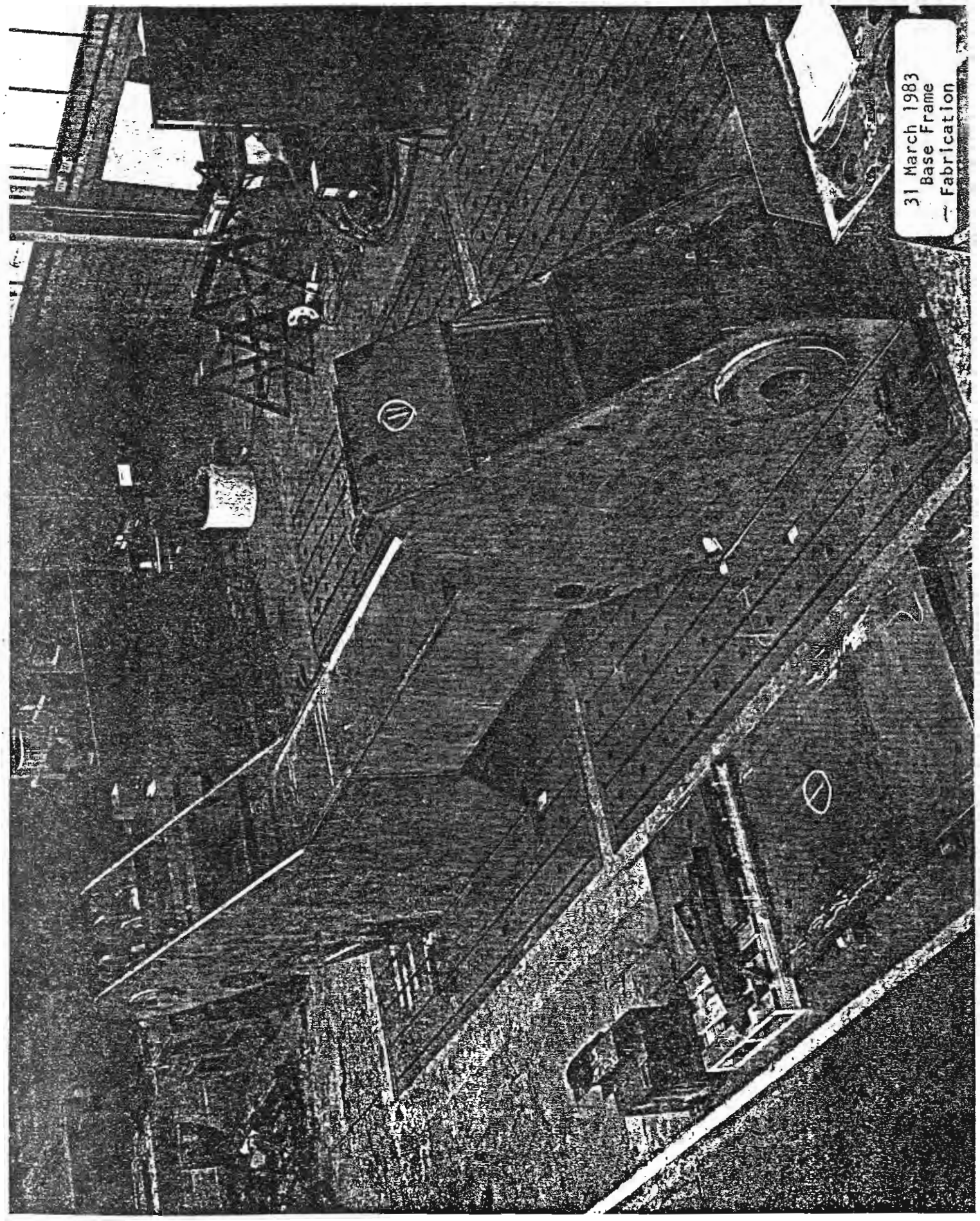

31 March 1983
A-frame Legs



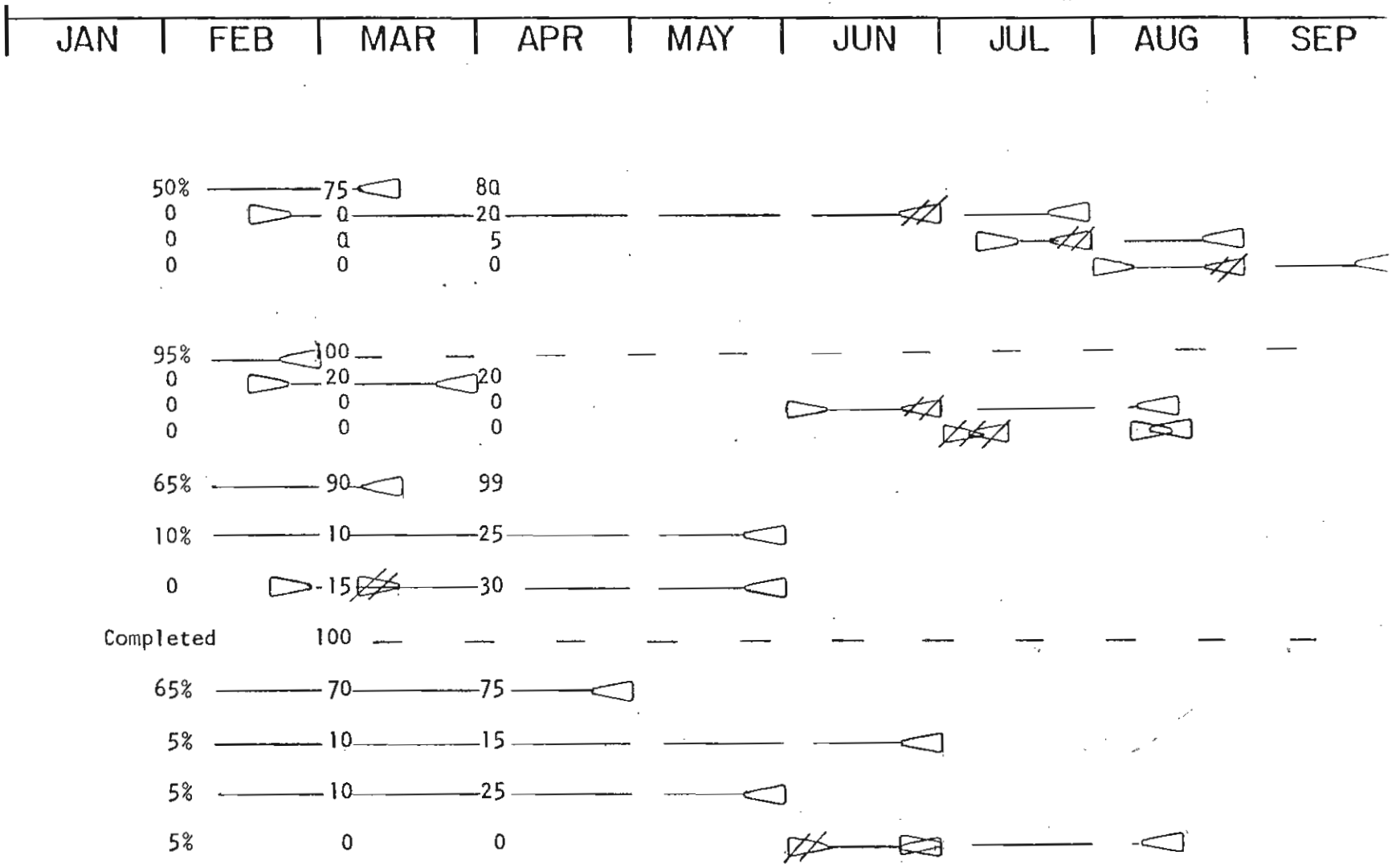
31 March 1983
A-frame Crown Piece



31 March 1983
Cylinder End of
Base Frame


31 March 1983
Base Frame
Fabrication

ALVIN - ATLANTIS II CONVERSION FLOW CHART



UNIVERSITY-NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

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

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

30 December 1982

Dear Colleague:

This letter is to provide prospective ALVIN users and others interested in the ALVIN program with information on advanced planning for the ALVIN/ATLANTIS II.

To help them in planning for ALVIN/ATLANTIS II operations in the Pacific Ocean during 1984 and early 1985, the ALVIN Review Committee held a workshop in San Francisco on December 11. The Committee members join me in thanking the prospective investigators who made presentations on their ALVIN research interests.

On the basis of their assessments of the research investigations proposed (both in presentations at the workshop and as preliminary proposals submitted to UNOLS) the Committee is recommending that the ALVIN/ATLANTIS II be committed to Pacific operations for a period of approximately eighteen months beginning in January, 1984. Approximately two-thirds of this period would be devoted to operations in the eastern Pacific; proposals from the Galapagos to the Gorda-Juan de Fuca system will be considered. One-third of the eighteen month period would be devoted to transit to and from the western Pacific and research there; proposals will be considered for the Marianas region and for such other areas as might reasonably be accommodated either along the transits or within logistic range of the Marianas region. Additionally, the Committee notes that proposals for the use of ATLANTIS II capabilities other than ALVIN should be considered for the period of this western Pacific leg.

The ALVIN Review Committee will meet in spring 1983 to review individual proposals and to set a schedule for January, 1984 - June, 1985. Proposals to be considered at that review should be submitted to the UNOLS Office by March 1, 1983, in accordance with the announcement for ALVIN research opportunities first distributed in September, 1982 and attached to this letter. At the spring meeting, individual ALVIN requests will be reviewed for the purposes of recommending individual projects to be accomplished, establishing priorities and making scheduling recommendations for the period January 1984 - June 1985. Basic criteria in the review will include scientific merit and evaluation of ALVIN suitability and utility for the work. The actual areas to

which ALVIN will be dedicated will be determined on the basis of the scientific quality of the individual proposals actually submitted and reviewed.

Prospective users are reminded that requests to UNOLS for ALVIN are for the use of the facility only, and no research or travel funding is implied. Associated research proposals should be made through usual channels to funding agencies. The ALVIN Review Committee urges that these proposals for research funding be submitted in time to allow funding decisions to be developed prior to the ALVIN review meeting.

Should you have any questions regarding ALVIN Review Committee procedures, or need additional information concerning our planning for this ALVIN program, please make inquiries to me through:

William D. Barbee
UNOLS Office, WB-15
School of Oceanography
University of Washington
Seattle, Washington 98195

Sincerely,

Robert W. Corell
Chairman, ALVIN Review Committee

Approved: Robert W. Corell

By direction,

William D. Barbee
Executive Secretary, UNOLS

WDB:gm

Attachment

MEMORANDUM

3/10/83

TO: UNOLS Advisory Council

FROM: R.W. Corell, Chairman, Subcommittee on International Restrictions to Ocean Science Research

SUBJECT: Report of Activities and Recommendations

The Subcommittee on International Restrictions to Ocean Science Research has been appointed and has commenced its work. A summary of activities follows:

(1) The subcommittee membership, as suggested at the January, 1983, A/C meetings, consists of:

Dr. Dirk Frankenburg
UNC/Chapel Hill
12-5 Venable Hall 045-A
Chapel Hill, NC 27514
919-962-1252

Dr. John A. Knauss
Dean of Graduate Oceanography
University of Rhode Island
Kingston, RI 02881
401-792-6222

Dr. David Ross
Woods Hole Oceanographic Institution
Woods Hole, MA 02543
617-548-1400, extension 2578

Dr. Warren Wooster
Institute for Marine Studies
University of Washington
HA 35
3731 University Way, NE
Seattle, WA 98195
206-543-7004

Dr. Robert W. Corell
Director, UNH Marine and Sea Grant Programs
Marine Program Building
University of New Hampshire
Durham, NH 03824
603-862-2994

(2) The subcommittee has decided to use conference calls, telemail, and regular mail as its primary means of conducting business.

(3) The subcommittee has addressed the central issues contained in H.R. 703 (a bipartisan bill authored by Representatives Studds and Pritchard to facilitate the conduct of international marine scientific research) and developed two policy recommendations for UNOLS. They are attached with the hope that the A/C will endorse them and authorize the chairman of the UNOLS committee to forward them to the appropriate individuals in both the Congress and the administration (the bill is attached).

(4) The Committee worked with Drs. Knauss and Ross who were to testify on H.R. 703 at a hearing scheduled for March 4. The hearing was postponed on March 3 to an, as yet, unscheduled date.

(5) Several items of interest related to the responsibilities of the subcommittee are attached.

(a) A letter to Secretary George Shultz, prepared by the Marine Division of the National Association of Schools and Land-Grant Colleges, with the response from the secretary

*(b) ~~Several relevant articles of interest by Drs. Wooster, Ross and Knauss~~

(c) Ross's testimony on LOS and Marine Scientific Research

(d) A fairly detailed analysis of H.R. 703 by Wooster, Miles, and Burke of the University of Washington

(e) Materials and questionnaires regarding restrictions to Marine Scientific Research which is being prepared by David Ross

*(f) ~~Materials on California requirements for Marine Scientific Research in the territorial seas~~

(6) The subcommittee recommends "The Cruise Assessment Form" be modified tc include a question(s) on restrictions imposed by foreign governments on the cruise as a means of developing a documented record of clearance experiences.

(7) The subcommittee raised the question as to the A/C expectationof effectively informing UNOLS members, beyond the report at the semi-annual meeting.

jmm
enc.
cc: Subcommittee

* Not included in Appendix X (2) for the May 27, 28, 1983 Semiannual UNOLS Meeting.

Subcommittee on International Restrictions to Ocean Science Research

The Advisory Council recommends that the Chairman of the Advisory Council and the Chairman of UNOLS jointly appoint a Subcommittee on International Restrictions to Ocean Science Research. The appointment of this Subcommittee is based on the following premise:

> Scientific inquiry and the knowledge gained therefrom is of fundamental importance to all mankind. The ocean science community potentially faces restrictions which can seriously limit access to oceanic and coastal regions critical to scientific inquiry.

The Subcommittee charge, therefore, is to serve as a Working Committee of the Advisory Council seeking to preserve the freedom of access to the world's oceans for scientific research.

It shall:

Monitor international, national and state laws, treaties and regulations affecting freedom of access to oceanic and coastal regions throughout the world,

identify and inform the Advisory Council and UNOLS membership about those issues which could limit access for the ocean science community,

make recommendations to the Advisory Council on the issues that need action and on possible UNOLS policy statements in order to help preserve freedom of access for scientific research in oceanic and coastal zones under the jurisdiction of the nation states, such as those identified by the Law of the Sea Treaty,

establish liaison where appropriate with government, academic and scientific organization or groups concerned with these issues so that coordinated responses can be developed in behalf of the ocean science community.

The Subcommittee shall submit a status report on the issues to UNOLS at each semiannual meeting.

The Advisory Council recommended that the Subcommittee be established with members:

Robert W. Corell, Chairman
Dirk Frankenberg
John A. Knauss
David A. Ross
Warren S. Wooster,

and that Dr. Corell move promptly to secure the recommended members' concurrence and establish the Subcommittee.

National Association
of State Universities
and Land-Grant Colleges

Robert L. Clodius, President

January 25, 1983

The Honorable George Shultz
Secretary of State
Washington, DC 20520

My dear Mr. Secretary:

I am writing to seek your assistance for the university research community in dealing with the effects of the marine science provisions of the Convention on Law of the Sea. We urge the United States Government to recognize the reality of other coastal nation's claims to jurisdiction over marine scientific research within 200 miles of their coasts, to initiate efforts to develop bilateral and/or regional arrangements to facilitate marine scientific research within areas 200 miles from shore claimed by other nations, and to process requests from U.S. academic institutions that wish to conduct research in these areas.

The members of the National Association of State Universities and Land-Grant Colleges have long supported the principle of open oceanic research intended for the general benefit of mankind as a vital component of the United States foreign policy; we view with concern the possible restrictions on marine scientific research which may result from the Convention on the Law of the Sea and the difficulties that such restrictions may impose specifically on the oceanographic research activities of the United States.

The sense of the above has been adopted in formal resolutions of the Senate of the National Association of State Universities and Land-Grant Colleges made up of 140 members, many of whom carry out extensive programs in the marine sciences including the operation of research ships.

The Association recognizes that the United States will not sign the U.N. Law of the Sea Convention as adopted by the Third United Nations Conference on the Law of the Sea. It appears that many, if not most coastal nations will implement the provisions of the Law of the Sea Treaty pertaining to marine scientific research. It is likely that these states will require U.S. scientists who wish to undertake research in their waters to follow the procedures contained in the treaty for the processing of research requests. The convention sets a number of conditions with which scientists must comply in order to obtain permission to conduct research in the waters of a foreign coastal nation. Furthermore, the treaty places the responsibility for compliance with its marine research provisions on the scientist's country and not on the scientist himself or on his institution.

This Association believes that it is essential for the United States to maintain a climate which encourages the growth of marine sciences in general and in coastal waters in particular. The waters over which coastal states have jurisdiction under the treaty comprise more than one-third of the entire ocean. Over 95% of marine fish are caught in these waters and approximately 20% of world oil and gas production comes from these areas. They may also hold the

One Dupont Circle, N.W Washington, D.C. 20036 202 / 293-7120

key to understanding such important problems as climatic change and global pollution. U.S. scientists have a long tradition of cooperating with foreign scientists in all areas of research and have made important scientific discoveries which affect all our citizens.

We seek your assistance; we seek your guidance; we offer our help. Please let us know what steps we might take to assure that international cooperation will continue in the development of the marine sciences.

Sincerely,

Robert L. Clodius
President

RLC/cw

United States Department of State

Washington, D.C. 20520

February 11, 1983

Mr. Robert L. Clodius
President
National Association of State
Universities and Land Grant Colleges
One Dupont Circle, N. W.
Washington, D. C.

Dear Mr. Clodius:

The Secretary has asked me to respond to your letter of January 25, 1983 in which you expressed concern that the marine science provisions of the Law of the Sea Convention would adversely affect United States marine scientific research.

The Department of State shares your concern with the marine science provisions of the recently completed LOS Convention. We are presently reviewing our policies in this area and we expect to develop procedures in the very near future that will minimize impediments to marine science. In addition, we expect actively to pursue bilateral agreements necessary to ensure that United States scientists have access to waters over which coastal states claim jurisdiction.

Thank you for writing and expressing your concern. We appreciate your interest in this vital area of oceans policy.

Sincerely,

J. Peter A. Bernhardt
Acting Director
Office of Ocean Law and Policy

PRESENTED STATEMENT OF DR. DAVID A. ROSS
WOODS HOLE OCEANOGRAPHIC INSTITUTION
WOODS HOLE, MASSACHUSETTS 02543

to the

COMMITTEE ON MERCHANT MARINE AND FISHERIES
U.S. HOUSE OF REPRESENTATIVES
ON THE LAW OF THE SEA
20 JULY, 1982

Mr. Chairman, Members of the Committee, I appreciate the opportunity to testify on the U.S. position on the Law of the Sea Treaty and its effect on marine scientific research and the oceanographic community of the United States. This is an important question that has not had much discussion.

As a general statement, let me stress that the marine scientific research articles in the Law of the Sea Treaty clearly could restrict U.S. research opportunities and activities in about 42% of the ocean. This 42% of the ocean is about equivalent in size to the present land area of this planet, and includes all inland waters, territorial seas, straits, archipelagic waters, the exclusive economic zone, and the continental shelf (in the legal sense) when it extends beyond 200 nautical miles. This 42% is also a region where over 90% of the world's fish are harvested, where most of the human input to the ocean occurs, and where almost all its present mineral resources, especially hydrocarbons, are found. Even many of the new discoveries of hydrothermal sulfide deposits fall within areas of national jurisdiction as defined by the Treaty. Simply said, the most scientifically and economically interesting and important parts of the ocean is a part which will come under coastal state control. To be denied or have restricted access to this region could be damaging to the orderly development of major areas of marine science and to obtaining answers to important questions concerning ocean use.

1) The Relative Merit of The LOS Treaty Versus No Treaty For U.S. Marine Scientific Research

I believe that most marine scientists familiar with the LOS Treaty would agree with me when I say that the marine science provisions are not beneficial for an active and aggressive U.S. marine scientific program. Let me give three quick examples - there are more in my written testimony.

(1) Within the territorial sea the coastal state has "the exclusive right to regulate, authorize and conduct marine scientific research...[which] shall be conducted only with the express consent of and under the conditions set forth by the coastal state." However, no statement at all is made in the Treaty concerning the mechanism necessary to get permission or the conditions that a coastal state can impose on a researching state or institution wanting to work in a foreign territorial sea. Similar omissions exist for straits and archipelagic waters.

(2) Within the 200-mile exclusive economic zone, which comprises about 32% of the ocean, permission of the adjacent coastal state must also be sought for research. This consent shall in normal circumstances be granted, but it can be denied for various reasons including, if the project "is of direct significance for the exploration and exploitation of natural resources, whether living or non-living." It is hard to imagine a form of marine research that cannot have some relevance for resources, and there is no mechanism for appeal if a state makes such a determination.

(3) There are a series of specific information items that must be presented six months before the start of the project as well as certain conditions that must be met to do research in foreign waters. The latter includes the right of the coastal states to participate in expeditions, secure

reports, have access to all data, and get an assessment of such data. These conditions are not completely unreasonable but they will involve additional cost and time in a project.

On a somewhat positive note, is the fact that consent is implied if the coastal state has not denied it within four months after receiving the necessary information. However, the coastal state can repeatedly ask for additional information and thereby continuously postpone a decision. This lack of predictability is one of the biggest problems in the Treaty for U.S. marine scientists.

In spite of what I have just said, it seems very evident that the Treaty, and U.S. participation in it, is clearly better for U.S. marine science interests than no Treaty. This, perhaps rather surprising conclusion, is due to the simple fact that already almost 90 countries have developed national legislation concerning marine scientific research in their waters. These laws in general include provisions similar to those in the Treaty but occasionally go even further. Without a uniform treaty and with each country having different rules, a very complex situation can exist for U.S. marine science. Implied consent, of course, is not included in foreign legislation. The Treaty, at least, presents a consistent set of rules for marine science, and they would take precedent over national legislation.

2) <u>The Risks to U.S. Marine Scientific Interests by The U.S. Position Against the Treaty</u>

The U.S. position against the Treaty creates two very real and immediate problems for U.S. marine scientists. The first problem concerns

policy and procedures presently used by the U.S. State Department to obtain permission for work in foreign waters, these are based on the 1958 Law of the Sea Convention. The U.S. essentially does not recognize any restriction over marine scientific research beyond those connected with the territorial sea and the continental shelf. Thus, the State Department will, at present, only request permission for you of another country if you want to work within that country's territorial sea - and it now recognizes a territorial sea of just three miles width. Permission would be requested out to twelve nautical miles if the research is to involve living resources. Sampling the bottom requires permission out to depths of approximately 600 meters. In the past if a U.S. researcher wanted to work within a declared 200 mile territorial sea of a foreign country he or she could only get the State Department to make a request by asking for permission to work within the 3 mile territorial sea (and doing it) as well as working within the 200 mile zone. Basically it was a fig leaf approach; we showed the foreign country a research station within 3 miles and another elsewhere and asked for permission to work in their waters. We meant that permission was being requested for the 3 mile station, they were free to assume that it was for the other station, which would constitute acceptance of their extended jurisdiction. Such diplomatic finesse will probably not work as well now, especially with the U.S. apparently intending to remain outside of the Treaty. Also critical will be the series of requirements, etc., that I mentioned earlier. For example, will the U.S. State Department accept those conditions on scientific research within the Law of the Sea Treaty that most coastal states feel they can legally impose? I doubt it very much - since to accept these conditions would be a tacit acceptance of the LOS Treaty. So U.S. marine scientists will be caught on the horns of an interesting dilemma - how to get permission to work in foreign

waters without compromising U.S policy. Indeed even writing proposals will be awkward since it will be very hard to predict the possibility of ultimate success, especially if implied consent is not applicable to countries remaining outside the Treaty. Some funding agencies have informally said that they will not give funds until permission is in hand.

We may already be seeing other effects of the LOS negotiations. For instance U.S. scientists are avoiding work in certain areas, such as off India and Trinidad and Tobago because of anticipated or past difficulties in working there. Such avoidance will make many of the problems of the Treaty come true without even a challenge.

It should also be mentioned that some countries may consider retaliation against the U.S. for not signing the Treaty. Marine science could be a likely target for several reasons including the ease of doing it (just keep on asking for additional information) and retaliation against science is a relatively passive and safe act compared to other alternatives.

The second immediate problem concerns the need for mechanisms to cover the additional costs that foreign marine science activities will incur. These costs will include additional administrative work, visits to the country for planning the research, foreign scientist participation and possibly training, sharing of data, etc.

(3) How The Risks to U.S. Marine Scientific Interests Can be Reduced

Whatever the ultimate position and actions of the United States with respect to the Law of the Sea Treaty, there is no escaping the fact that the perceptions of the coastal states as to the law of the sea and MSR in their waters have changed.

On the other hand, the instructions and guidelines on scientific research issued to oceanographic institutions by the U.S. State Department pertain to a time when there was nearly universal acceptance of the 1958 Law of the Sea Convention. These instructions are now inappropriate for initiating clearance for conducting scientific research in the waters of coastal states. It is very important that the State Department amend these instructions and policy guidelines to match the perceptual and real changes of the coastal states as to the regime governing scientific research. These changes should involve input from other government agencies such as NSF and ONR and marine scientists - not just the State Department.

Such new policy should include statements concerning coastal states' rights over marine scientific research, and U.S. acceptance of the marine scientific research conditions in the Treaty. The objective is to create a situation wherein U.S. scientists can request permission via the State Department that the State Department can carry forward with a reasonable chance of success. It should be noted that the fig leaf approach mentioned earlier was essentially a de facto recognition of a coastal states' claim to extended jurisdiction. It really should not be so hard for the United States to recognize the marine scientific research articles; afterall we did not challenge them during the final 2 years of LOS negotiations.

It would also be most useful if the U.S. could negotiate bilateral marine scientific agreements with those countries in whose waters we most commonly work - i.e., Mexico and Canada (about 50 percent of our requests go to these two countries).

An alternate possibility is for the U.S. to establish, by legislation, its own 200 mile scientific or exclusive economic zone. Such an action, perhaps driven by this Committee, could solve many of the difficulties that

various U.S. interests will face, as well as being especially useful for marine science. It should be possible by such a step to improve on marine scientific research conditions while still having an approach acceptable to other countries. I can assure you that the U.S. marine scientific community would support these interests.

In conclusion, let me emphasize the importance of reviewing and updating our policy and procedures for conducting marine scientific research in foreign waters, as soon as possible, to reflect the realities of the present world - regardless of what postition the U.S. ultimately takes on the Law of the Sea Treaty. The longer the delay, the more the erosion in our ability to work in foreign waters, and the greater the loss for U.S. marine science.

Finally, much has been learned from the ocean in recent years that bears on many interests in the United States. Opportunities concerning climate prediction and modification, innovative use of the ocean for energy, new sources of mineral deposits and safe disposal of waste are just a few examples. To successfully develop these and explore other possibilities will require an aggressive U.S. marine scientific program working in all the world's ocean. It would be a shame to lose the progress and momentum of past years because of a lack of leadership and imagination in dealing with some of the Law of the Sea problems.

Thank you.

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98105

School of Law
Condon Hall JB-20

February 10, 1983

Rep. Joel Pritchard
2263 Rayburn H.O.B.

and

Rep. Gerry E. Studds
H2-545, House Annex #2
Washington, D. C. 20515

Dear Congressmen Pritchard and Studds:

We have reviewed H. R. 703 and have no major reservations about it. If it could be adopted as it stands, it would considerably improve the prospects for the conduct by U. S. scientists of marine scientific research in many parts of the world.

We do have some comments and suggestions that you might wish to take into account should it prove desirable to elaborate further some of the provisions of the bill. These pertain mainly to Sections 2 and 4. We also attach drafts of two new sections that would be considered.

Section 2 includes the territorial sea among the areas under U. S. jurisdiction that would be open to research by foreign scientists under Section 3. We agree that this would serve U. S. interests, but we fear it might attract unnecessary opposition from those who will conjure up visions of threats to national security from near-shore research by Soviet vessels. With this possibility in mind, we suggest a new Section 6 to meet such concerns. This new section might serve other purposes as suggested below.

We have also redrafted Section 2 to exclude the territorial sea and to include a paragraph concerning archipelagic waters. These cover large ocean regions where access for research may be as much of a problem as in the 200 mile zones.

In Section 4, it would be useful to widen the avenues of negotiation by adding references to international organizations and multilateral agreements. At some stage, the U. S. may wish to arrange some cooperative research through the Intergovernmental Oceanographic Commission of Unesco or some other global or regional intergovernmental organization.

We believe it would be desirable to add a new Section 6 in order to indicate that the United States has some expectations regarding participation in research in U. S. waters and in gaining access to the results of such research. However, a more important benefit of a provision such as

Section 6, which incorporates much of Articles 248 and 249 of the 1982 LOS Convention, is the opportunity it would provide for the U. S. to express its views on the interpretation and implementation of the marine science provisions of that Convention. Finally, the new section might facilitate acceptance of the bill by those who fear foreign research in our own waters.

Section 5 is, of course, a critical provision that is essential to retain, and we have no suggestions for its improvement.

The new Section 7 seeks to take into account the use of research installations and equipment other than vessels and is proposed for the sake of completeness. It is drawn from Section 4, Part XIII of the Convention.

We support the passage of H. R. 703, as it stands, or with changes such as we have proposed. Please let us know if we can be of further help.

Sincerely,

William T. Burke
Professor of Law and
Marine Studies

Edward L. Miles
Director, Institute for
Marine Studies

Warren S. Wooster
Professor of Marine Studies
and Fisheries

DRAFT

Annex I

Section 1. The United States asserts for itself and recognizes the right of any other coastal nation, to regulate, authorize, and conduct marine scientific research in a manner consistent with generally accepted principles of international law --

(1) throughout the area whose inner boundary is the outer limit of the territorial sea and whose outer boundary is a line drawn so that every point on it is no more than 200 n.miles from the baseline for the territorial sea, provided that the territorial sea limit is consistent with the general principles of international law as recognized by the United States; and

(2) same; and

(3) throughout any other ocean areas within which an archipelagic State may exercise jurisdiction over marine science research under general principles of international law as recognized by the United States.

New Section 6

(1) Any nation whose nationals intend to conduct scientific research in the waters defined in Section 2 shall notify the U. S. Department of State of that intent.

(2) The notification shall be provided not less than 60 days in advance of the expected starting date of the project and shall include the following:

(a) the nature and objectives of the project;

(b) the method and means to be used, including name, tonnage, type and class of vessel, and a description of scientific equipment;

(c) the precise geographical areas in which the project is to be conducted;

(d) the expected date of first appearance and final departure of the research vessels, or deployment of the equipment and its removal, as appropriate;

(e) the name of the sponsoring institution, its director, and the person in charge of the project; and

(f) the extent to which it is considered that the United States should be able to participate or be represented in the project.

(3) Such notification is presumed to constitute acceptance of the following conditions that the researching State will:

(a) ensure that the United States, if it so desires, may participate or be represented in the marine scientific research project, without cost to the researching State;

(b) provide the United States, at its request, with preliminary reports, as soon as practicable, and with the final results and conclusions after completion of the research;

(c) undertake to provide access to the United States, at its request, to all data and samples derived from the research project and likewise to furnish it with data which may be copied and samples which may be divided without detriment to their scientific value;

(d) if requested, provide the United States with an assessment of such data, samples, and research results or provide assistance in their assessment or interpretation;

(e) ensure that the research results are made internationally available through appropriate national or international channels, as soon as practicable;

(f) inform the United States immediately of any major change in the research program;

(g) unless otherwise agreed, remove the scientific research installations or equipment once the research is completed.

New Section 7

(a) The deployment and use of any type of scientific research installations or equipment in areas defined in Section 2 shall be subject to the conditions of Section 6.

(b) The deployment and use of any type of scientific research installations or equipment shall not constitute an obstacle to established international shipping routes.

(c) installations or equipment referred to in this section shall bear identification markings indicating the State of registry or the international organization to which they belong and shall have adequate internationally agreed warning signals to ensure safety at sea and the safety of air navigation, taking into account rules and standards established by competent international organizations.

Woods Hole Oceanographic Institution
Woods Hole, MA 02543
Phone: (617) 548-1400
Telex: 951679

SEA GRANT OFFICE
X2398

February 14, 1983

TO: Bob Corell, Chairman
UNOLS Working Committee

FROM: Dave Ross

SUBJ: UNOLS Working Committee on International Restrictions to Ocean Science Research

In response to your memo of 1 February 1983 I enclose a copy of comments recently sent to Congressman Studds (and others) concerning H.R. 703 (Studds/Pritchard Bill).

In addition we are in the process of completing a review of the problems facing U.S. marine scientists (see questionnaire enclosed). Over 130 questionnaires have been sent out and about 70 have been received.

Concerning background material for our Committee - is there UNOLS data showing the size or characteristics of the problem? For example, can we add a year or two to Warren Wooster's study?

enc. - 2

cc: Warren S. Wooster, John A. Knauss, Dirk Frankenberg, William D. Barbee, Derek Spencer, Bruce Robison

MARINE SCIENCE QUESTIONNAIRE

Marine scientists aware of the protracted Law of the Sea negotiations and the resulting treaty know that the procedures for working in foreign waters are changing. The Law of the Sea Treaty (LOST) establishes a consent regime for marine scientific research in a 200-mile exclusive economic zone (EEZ) as well as restrictions for other areas.(The enclosed paper, recently published in Science, describes some of these problems.) About 80 countries have already enacted legislation controlling marine scientific research in their EEZ. Decisions regarding foreign water marine research under the consent regime established by LOST or by the coastal country could often be based on political rather than scientific considerations.

Arrangements for U. S. scientific research in foreign waters may be further affected by the recent U. S. decision not to sign LOST. One implication of this action is that we may not recognize boundaries, conditions, and rules that other countries will now consider part of international law. For example, the U. S. Department of State at present recognizes a three mile territorial sea for most forms of marine research, while LOST establishes a 12-mile territorial sea. There is increasing concern that such disparities will affect U. S. marine scientists in planning and conducting research in the areas of the ocean that will, or already do, fall under coastal state control (could be as much as 42% of the ocean). Difficulties in obtaining consent (ie. clearance delays or the imposition of difficult research conditions) might fundamentally affect U. S. marine scientific research in foreign waters by constraining funding, planning, and scheduling procedures.

We feel it is important to know if U. S. marine scientists are or have been affected by the consent regime or other restrictions and if so, what those effects are. It is difficult to judge the magnitude of these problems since little information exists on (1) the interest of U. S. marine scientists in conducting research in foreign waters, (2) the perceptions of U. S. marine scientists regarding the changes implicit in a consent regime, and (3) the reactions within the U.S. marine scientific community to the effects of these changes on the design, emphasis, and desirability of marine research in foreign waters.

It appears that the best way to get the necessary information is through a questionnaire. Our objective is to obtain information to see if policy changes are needed within the U.S. Department of State and the funding agencies. You have been chosen because you have had a cruise in recent years (information via UNLOS office) or because it is felt that you are interested in this subject. We would appreciate you taking the time to answer and to return the enclosed questions by December 20. Individual responses will remain confidential but to avoid sending second mailings to non-respondents, the questionnaires are numbered. The aggregated results will be available to all respondents as well as to scientific funding agencies. It may be necessary to do a follow-up questionnaire in a few years to ascertain further, if any effects. This idea has been developed with the advice of the Ocean Policy Committee of the National Academy of Sciences and discussed with representatives of NSF and the Department of State.

The information you provide will enable an evaluation of the interests and needs of U. S. marine scientists seeking research opportunities in foreign waters. Thank you for your cooperation and participation.

David A. Ross

David A. Ross
Woods Hole Oceanographic
Institution

MARINE SCIENCE QUESTIONNAIRE

1. In the last decade, have you conducted marine scientific research in waters that are or could be claimed as an economic zone or fisheries zone by a foreign nation (ie., within about 200 miles of a foreign coast)? ____ YES ____ NO

   (a) (IF YES) Off which countries was your research conducted?

   (b) (IF YES) In terms of this research: (Check those which apply)

   Did the U.S. Department of State request clearance for your research? ___

   Did you make private requests? ___

   Did you conduct the research without clearance? ___

   (c) (IF YES) Did you encounter difficulties/problems in obtaining permission from coastal countries to conduct your research? ___YES ___NO

   i. (IF YES) What is the nature of the difficulties you have encountered? With which countries?

2. If you have not conducted research in foreign coastal waters in the past decade, was it because:

   (a) Such research is of no interest to you. ____ YES ____ NO

   (b) You were by international factors (e.g., complexities of distant-water operations, increased operating costs, anticipated difficulties with clearance etc.) discouraged from pursuing such research? ____YES ____NO

i. (IF YES) What were the constraining factors?

(c) The research was precluded by domestic factors (e.g. funding limitations, unfavorable reviews etc.)?

___YES
___NO

3. Is it likely that your research interests will encourage you to work in foreign waters in the near future?

___YES
___NO

(a) (IF YES) Where would you like to work? (Check those which apply and list particular country/countries)

__Central America _____

__South America _____

__Europe _____

__Africa _____

__Middle East _____

__Other _____

(b) (IF NO) Why are you deterred from pursuing such research? (Check those which apply)

Lack funding __

Clearance problems __

Sharing data requirements __

Other __ _____

4. Do you anticipate that the LOST requirements might prohibit or discourage you from conducting such research or from obtaining necessary financial support within the U.S.?

___YES
___NO

5. Has the consent regime or any other foreign rules affected your research in any/all of the following ways?

(a) Design ___YES ___NO

i. (IF YES) How?

(b) Planning ___YES ___NO

i. (IF YES) How?

(c) Execution ___YES ___NO

i. (IF YES) How?

6. Do you expect that in the future the consent regime will either begin or continue to affect your research efforts?

___YES
___NO

(a) (IF YES) What are the effects you anticipate? (Check those which apply)

Research planning __

Ability to get clearance __

Cost __

Geographic location __

7. Do you have any recommendations that could bear on future U.S. scientific marine work in foreign waters?

8 Please add any specific comments, successes or past histories that you wish to share (such as reprints, key contacts, procedures, techniques, etc.)

9. If there are any scientists you feel we should send a questionnaire, please list their names and where we might contact them.

10. What describes your main field of interest? (Please check)

Marine Geology __ Biological Oceanography __

Marine Geophysics __ Physical Oceanography __

Chemical Oceanography __ Fisheries Science __

Ocean Engineering __ Marine Policy __

Other __ _____

11. Would you like a copy of our results? ___YES ___NO

(a) (IF YES) Please indicate name and address

WOODS HOLE OCEANOGRAPHIC INSTITUTION
Woods Hole, Massachusetts 02543
Phone (617) 548-1400

David A. Ross
Director of the Marine Policy
and Ocean Management Program

January 28, 1983

The Honorable Gerry E. Studds
H2-545 House Annex #2
Washington, D.C. 20515

Dear Congressman Studds:

Thank you for the opportunity to comment on H.R. 703. Your interest and concern for the U.S. marine scientific community is appreciated by me and by many of my colleagues. Your statement concerning H.R. 703 very precisely focuses on several of the problems that U.S. marine scientists presently face including:

- The U.S. Department of State's present reluctance to recognize jurisdictional boundaries that differ considerably from our own;

- The desire of many foreign countries to place restrictions on scientific research off their coasts; and

- The reduction in U.S. government support for marine research.

The proposed legislation, which is considerably more liberal than the marine science articles in the Law of the Sea Treaty, may well be helpful for access and specific bilateral arrangements. However, there may also be some risks in the statements as presently written. For example, U.S. assertion of control for itself over marine scientific research in its EEZ (Sec. 2) raises the spector of possible future control over marine science efforts of U.S. scientists. For instance, this could lead to a future policy wherein all mineral-related research was to be done only under the aegis of a specific Federal agency. Such turf fights already exist between government agencies and it would be most unsatisfactory if such actions were to extend to non-governmental scientists and institutions. The key question is therefore "can the U.S. establish control over foreign research in its waters without having to also 'control' U.S. research?"

Another concern involves having foreign research in our waters being tied to "compliance with otherwise applicable law" (Sec. 3). I suspect this includes things like custom regulations and the like but open-ended language like this could lead to retaliation by other countries using similarly worded foreign laws. Likewise it may suggest to others that their disagreements with non-germane aspects of U.S. policy can be applied to our marine science requests. Finally, developing bilateral and regional agreements to facilitate marine scientific research indeed will be a valuable approach. I would suggest that the costs be considered (including money, facilities and time) and that U.S.

marine scientists be involved in such negotiations. The point may seem obvious, but there have been several foreign science and technology arrangements that the U.S. academic community found hard to accept and actually participate in.

As you well know, the LOS negotiations and the present U.S. situation toward the treaty are very sensitive matters, with much polarization in individual views. Some believe that it is risky for the U.S. to accept only those parts of the treaty that suit its purposes and thus feel that to do nothing is the best policy; others favor a more aggressive approach. The pending Reagan Proclamation, although in the latter category, apparently will not mention marine scientific research. It is my understanding that comments will be made in an accompanying Ocean Policy Statement concerning the right of foreign countries to control marine scientific research. What impact such a statement (presented outside of the actual proclamation) might have with foreign countries is unclear; a similar approach by Truman in his 1945 Proclamation was less than successful. Clearly, if the President wished, he could instruct the Department of State to recognize foreign claims to research in their waters.

In a related matter, we are making a study at Woods Hole to ascertain the effects of the LOS on U.S. scientists interested in foreign water research. Over 100 questionnaires have been distributed (about 70 answered) and some preliminary data should be soon available. This information could be useful to you in reaching decisions on the final version of this legislation.

With very best wishes,

David A. Ross

David A. Ross

cc: Cong. Joel Pritchard

United States Department of State

Washington, D.C. 20520

BUREAU OF OCEANS AND INTERNATIONAL
ENVIRONMENTAL AND SCIENTIFIC AFFAIRS

April 20, 1983

Mr. Robert W. Corell
Director, UNH Marine and Sea Grant
Programs
University of New Hampshire
Durham, New Hampshire 03824

Dear Bob:

Thank you for your letter of March 30. It was a pleasure to hear from you again. I commend UNOLS for organizing a committee to focus on issues relating to the Presidential Proclamation, particularly those affecting marine scientific research.

As you are aware, an important consideration in developing the Proclamation and policy statement was to alleviate burdens on U.S. researchers. The Proclamation eliminates the need for additional research inside three miles, which had been exercised to preserve our non-recognition policy of 200-mile MSR claims. The Proclamation also ensures unrestricted research off the U.S. coast beyond 3 miles for both U.S. and foreign researchers. Foreign researchers still require our permission to conduct continental shelf research. Again, formulation of this policy was deliberate to alleviate problems faced by U.S. scientists.

Over the years, this Bureau, particularly the Office of Marine Science and Technology Affairs, has worked closely with UNOLS. The present research vessel clearance procedures were jointly developed with UNOLS in the 1970s. Major conferences have been sponsored by UNOLS, some in conjunction with the Academy of Sciences, to address the impact of LOS on U.S. research. We have participated in these, the annual UNOLS meeting, and the UNOLS Advisory Council meetings. In short, I would like to continue this close, productive relationship,

including meeting with the new policy committee. Please get in touch with me or Bill Erb to make arrangements.

I have requested that the Law of the Sea publication be provided as requested.

Sincerely,

Theodore G. Kronmiller
Deputy Assistant Secretary for
Oceans and Fisheries Affairs

Enclosure.

UNITED STATES OCEANS POLICY

On March 10, 1983 the President announced new guidelines for U.S. oceans policy and proclaimed an Exclusive Economic Zone (EEZ) for the United States.

The EEZ Proclamation confirms U.S. sovereign rights and control over the living and non-living natural resources of the seabed, subsoil and superjacent waters beyond the territorial sea but within 200 nautical miles of the United States coasts. This will include, in particular, new rights over all minerals (such as nodules and sulphide deposits) in the zone that are within 200 nautical miles.

The EEZ applies to water adjacent to the United States, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands (consistent with the Covenant and UN Trusteeship Agreement), and United States overseas territories and possessions. The total area encompassed by the EEZ has been estimated to exceed two million square nautical miles.

The President's statement makes clear that the proclamation does not change existing policies with respect to the outer continental shelf and fisheries within the U.S. zone.

Since President Truman proclaimed U.S. jurisdiction and control over the adjacent continental shelf in 1945, the U.S. has asserted sovereign rights for the purpose of exploration and exploitation of the resources of the continental shelf. Fundamental supplementary legislation, the Outer Continental Shelf Lands Act, was passed by Congress in 1953. The President's proclamation today incorporates existing jurisdiction over the continental shelf.

Since 1976 the United States has exercised management and conservation authority over fisheries resources (with the exception of highly migratory species of tuna) within 200 nautical miles of the coasts, under the Magnuson Fishery Conservation and Management Act. The U.S. neither recognizes nor asserts jurisdiction over highly migratory species of tuna.

The United States has also exercised certain other types of jurisdiction beyond the territorial sea in accordance with international law. This includes, for example, jurisdiction relating to pollution control under the Clean Water Act of 1977 and other laws.

The President has decided not to assert jurisdiction over marine scientific research in the U.S. EEZ. This is consistent with the U.S. interest in promoting maximum freedom for such research. The Department of State will take steps to facilitate access by U.S. scientists to foreign EEZ's under reasonable conditions.

The concept of the EEZ is already recognized in international law and the President's Proclamation is consistent with existing international law. Over 50 countries have proclaimed some form of EEZ; some of these are consistent with international law and others are not.

The concept of an EEZ was developed further in the recently concluded Law of the Sea negotiations and is reflected in that Convention. The EEZ is a maritime area in which the coastal state may exercise certain limited powers as recognized under international law. The EEZ is not the same as the concept of the territorial sea, and is beyond the territorial jurisdiction of any coastal state.

The President's proclamation confirms, that, without prejudice to the rights and jurisdiction of the United States in its EEZ, all nations will continue to enjoy non-resource related freedoms of the high seas beyond the U.S. territorial sea and within the U.S. EEZ. This means that the freedom of navigation and overflight and other internationally lawful uses of the sea will remain the same within the zone as they are beyond it.

The President has also established clear guidelines for United States oceans policy by stating that the United States is prepared to accept and act in accordance with international law as reflected in the results of the Law of the Sea Convention that relate to traditional use of the oceans, such as navigation and overflight. The United States is willing to respect the maritime claims of others, including economic zones, that are consistent with international law as reflected in the Convention, if U.S. rights and freedoms in such areas under international law are respected by the coastal state.

The President has not changed the breadth of the United States territorial sea. It remains at 3 nautical miles. The United States will respect only those territorial sea claims of others in excess of 3 nautical miles, to a maximum of 12 nautical miles, which accord to the U.S. its full rights under international law in the territorial sea.

Unimpeded commercial and military navigation and overflight are critical to the national interest of the United States. The United States will continue to act to ensure the retention of the necessary rights and freedoms.

In practical terms, how does this affect marine science? The major impact is that scientists are no longer required to conduct research inside the territorial sea or on the continental shelf in order to justify the State Department's processing a clearance request. As you are aware, this was the practice we followed when a research project was conducted a greater distance offshore than the U.S. recognized. Now, the researcher simply forwards a request for the actual research without bothering to add stations inside the territorial sea.

Under the old policy, researchers were sometimes able to conduct the research without permission, especially if it was quite far out at sea. If that were to happen under the new policy, the United States government would not be able to provide much in the way of a defense if the researcher was challenged by the coastal state, since we now legally recognize extended claims. The affect on research could be increased costs because more cruises will require clearance. Submission of a clearance request gives the coastal state an opportunity to place observors aboard and request data results, etc. Whenever a request is submitted, there is always the risk of being turned down or a delay.

A close reading of the new policy reveals a phrase which states that the U.S. will recognize 200-mile jurisdiction, if that jurisdiction is exercised reasonably in a manner consistent with international law? One might ask what is reasonable and what is consistent with international law. Reasonable has not been defined in the President's Proclamation. Our intention is to handle this on a case-by-case basis and in consultation with the marine science community. Reasonable will generally be judged by making a comparison to the Law of the Sea Treaty. In our view, the Treaty section on marine scientific research reflects international law and to some extent the practice of many coastal states. Examples of reasonable conditions include: sharing data, six-month lead-time on clearances, and an offer to include foreign participants in the research cruise.

The Department will not arbitrarily decide which countries have reasonable claims. If a country has a publication restriction, such as Trinidad and Tobago, the Department will forward the clearance request and make every effort to negotiate an acceptable outcome. We will process requests to countries with known unreasonable conditions in an attempt to open a dialogue for the purpose of seeking a compromise. In the case of a publication restriction, the coastal state might agree to give its permission to publish the data prior to the research cruise. It's important to repeat that we will not take a position which results in our simply refusing to process a request.

Our objective in helping to prepare the Proclamation was to make it reflect what U.S. scientists wanted. We believe the Proclamation does this. This is also true with regard to not asserting jurisdiction over marine scientific research in the U.S. EEZ. U.S. scientists that were polled indicated that they were not in favor of the U.S. asserting MSR jurisdiction. First, it would not be in concert with our traditional view of MSR as a high seas freedom, and secondly, scientists were afraid that this would lead to regulation of our own scientists in the U.S. EEZ. After asserting jurisdiction, the bureaucratic tendency would be for agencies to carve up the regulatory pie. It is still too early to determine what affect implementing legislation might have, but again, every effort will be made to ensure it reflects what the science community wants.

BILATERALS

The National Academy of Sciences convened a workshop on bilaterals in 1978, and the recommendations developed at the workshop remain valid today. The participants included scientists, Academy and federal agency representatives.

The workshop concluded that it is important to realize that bilaterals can take many different shapes and forms. Bilaterals, such as formal science and technology agreements, are used to enhance political relationships, such as the U.S.-Soviet World Oceans Agreement -- these often are scientifically unsuccessful. Other politically motivated bilaterals, such as the U.S.-French, U.S.-Japanese, and U.S.-PRC, have resulted in scientific projects of value to the United States. In addition, the U.S.-PRC Agreement provided U.S. researchers access to Chinese coastal waters, which would not have been possible

without the agreement. Even informal discussions between government officials to improve procedures can be classified as "bilaterals". Scientists often negotiate collaborative projects, and these too are bilaterals. The end product of bilateral negotiations can be a memorandum of understanding, an exchange of notes, a formal agreement, or even a simple handshake. The workshop concluded that the best bilateral is usually the simpliest and least costily.

Our office is already actively involved in many of the bilaterals of the nature I just mentioned. However, the new initiative which we are now considering is in the area of government-to-government discussions on procedures and regulations for conducting marine scientific research in foreign coastal waters. A good bilateral agreement with a country such as Canada could serve as a model in future negotiations. Undertaking a bilateral negotiation entails risks because it demonstrates to the other country the importance the U.S. places on access. A negotiating country that perceives this might increase the pressure at the negotiating table, or it might be inclined to impose restrictions on future research if the negotiations fail. With a country such as Canada, there should not be a need for incentives because both countries have capable scientists with research interest in each others' coastal areas.

Before one concludes that negotiation of a bilateral is desirable, it must be determined whether there is a real problem to be solved and whether the volume of clearances justifies taking the risks inherent in seeking a bilateral. In my view, one could seek a bilateral with Mexico on procedures, but there will be costs. Almost 1/3 of all U.S. research in foreign waters is conducted off Mexico, which makes Mexico a high priority. In other countries such as Trinidad and Tobago, one might attempt to just remove their publication restriction. These initiatives should only be taken after full consultation with the marine science community and with their participation.

Prepared for the annual UNOLS Meeting 1983, by William Erb.

United States Department of State

Washington, D.C. 20520

BUREAU OF OCEANS AND INTERNATIONAL
ENVIRONMENTAL AND SCIENTIFIC AFFAIRS

May 25, 1983

NOTICE TO RESEARCH VESSEL OPERATORS # 61 (Revision 3)

SUBJECT: Claimed Maritime Jurisdictions

The following table is designed to provide research institutions and federal agencies with guidance on maritime claims of foreign nations. The listing does not necessarily reflect acceptance or recognition by the United States Government of the claims or of the countries. Additionally, it is likely that certain countries will change or expand their claims beyond the limits contained in this list. Researchers are advised to consult with this office when any research is planned off foreign coasts.

Users of this table should recognize the limit of the application of these data. More specific information, such as claimed baselines (from which limits can be measured), negotiated or claimed boundaries with neighboring states, etc., should be obtained for precise interpretative analysis.

Extended territorial sea, fishing, or economic zones may be interpreted by the coastal state as including jurisdiction over marine scientific or fisheries research. However, unless a claim is explicitly stated in the national law of that state the claim will not appear in the table. Researchers should consult this office for guidance as necessary.

Questions or updates on these lists should be directed to:

Lee R. Stevens
Office of Marine Science
and Technology Affairs
Department of State
Washington, D.C. 20520
Telephone (202) 632-0789

CLAIMED MARITIME JURISDICTIONS

Claims listed in this table are derived from national laws. Boundary situations with neighboring states may preclude the extension of certain claims to the limits specified in those laws. This table excludes citation of jurisdictional claims over the continental shelf as well as jurisdictional claims over aircraft overflights.

Claimed Maritime Jurisdictions:
- TS - Territorial Sea
- FR - Fisheries Research
- F - Fishing
- MS - Marine Scientific Research
- EZ - Economic Zone

Lead Time:
- LT - Clearance request should be submitted to the Department of State (or country involved when diplomatic channels are not being used) the stated number of months in advance of the starting date of the research.

Official Channels:
- OC - Clearance request should generally be submitted through the Department of State.

Party to 1958 Conventions:
- HS - Convention on the High Seas
- CS - Convention on the Continental Shelf
- TS/CZ - Convention on the Territorial Sea and Contiguous Zone

Parentheses indicate that a reservation, declaration, or statement may affect the interpretation of the convention by individual states.

								Party to 1958 Conventions		
COUNTRY	TS	FR	F	MS	EZ	LT	OC	HS	CS	TS/CZ
Albania	15							(X)	X	
Algeria	12									
Angola	20	200	200							
Antigua & Barbuda	3		12							
Argentina*	200	200	200	200		7				
Australia	3		200					X	X	X
Bahamas, The	3	200	200			2				
Bahrain	3									
Bangladesh**	12		200		200					
Barbados	12	200	200	200	200	2				
Belgium	3		200					X		X
Belize (U.K.)	3	12	12							
Benin	200									

* Navigation and overflight permitted beyond 12 nautical miles.

** Bangladesh claims are delimited from a claimed 10-fathom baseline.

COUNTRY	TS	FR	F	MS	EZ	LT	OC	Party to 1958 Conventions HS	CS	TS/CZ
Brazil	200	200	200	200		7	X			
Bulgaria	12							(X)	X	(X)
Burma	12	200	200	200	200					
Cameroon	50		50							
Canada	12	200	200			2	X		(X)	
Cape Verde*	12	200	200	200	200					
Chile	3	200	200			7				
China	12									
Colombia	12	200	200	200	200	4			X	
Comoros	12		200		200					
Congo	200									
Cook Islands (NZ)	12	200	200		200					
Costa Rica	12		200		200			X	X	
Cuba	12	200	200	200	200					
Cyprus	12								X	
Denmark**	3		200					X	X	X
Djibouti	12	200	200	200	200					
Dominica	3		200		200					
Dominican Republic	6	200	200	200	200			X	X	X
Ecuador	200	200	200	200		***				
Egypt	12									
El Salvador	200									
Equatorial Guinea	12									
Ethiopia	12		12							

* Archipelagic claim.

** Danish claim includes Greenland and the Faroe Islands.

*** Lead-time for Ecuador is 3 months; Galapagos Islands require 5 months.

COUNTRY	TS	FR	F	MS	EZ	LT	OC	Party to 1958 Conventions HS	CS	TS/CZ
Federal Republic of Germany	3		200					X		
Fiji*	12		200		200			X	X	X
Finland	4		12					X	X	X
France**	12	200	200	200	200				(X)	
Gabon	100		150							
Gambia, The	50		200							
German Democratic Republic	3		200					(X)	(X)	(X)
Ghana	200									
Greece	6						X		(X)	
Grenada	12	200	200	200	200					
Guatemala	12	200	200	200	200			X	X	
Guinea	12		200		200					
Guinea-Bissau	12		200		200					
Guyana	12	200	200	200	200					
Haiti	12	200	200	200	200			X	X	X
Honduras	12	200	200	200	200					
Iceland	12	200	200	200	200	7				
India	12	200	200	200	200	7	X			
Indonesia	12	200	200	200	200	6		(X)		
Iran***	12		200							
Iraq	12									
Ireland	3		200							
Israel	6							X	X	X

* Archipelagic claim.

** French claims apply to all overseas departments and territories.

*** Iranian fishing limit extends to the median line of the Gulf of Oman.

COUNTRY	TS	FR	F	MS	EZ	LT	OC	Party to 1958 Conventions HS	CS	TS/CZ
Italy	12							X		(X)
Ivory Coast	12	200	200	200	200					
Jamaica	12							X	X	X
Japan*	12	200	200					(X)		(X)
Jordan	3		3							
Kampuchea	12		200		200			X	X	X
Kenya	12	200	200	200	200			X	X	X
Kiribati	3		200							
Korea (North)**	12		200		200					
Korea (South)***	12		200							
Kuwait	12									
Lebanon	none		6							
Liberia	200									
Libya	12									
Madagascar	50		150		150			(X)	X	(X)
Malaysia	12		200		200			X	X	X
Maldives	****	35-310	35-310	35-310	35-310					
Malta	12		25						X	X
Mauritania	70	200	200	200	200					
Mauritius	12	200	200	200	200			X	X	X
Mexico	12	200	200	200	200	4	X	(X)	X	(X)

* Japan's territorial sea is 3 nm in five "international straits."

** North Korea has also claimed a 50-mile "military boundary line" in which all foreign vessels and aircraft are banned without permission.

*** South Korea's territorial sea is 3 nm in the Korea Strait.

**** Maldives has a rectangular/polygonal claim defined by coordinates.

COUNTRY	TS	FR	F	MS	EZ	LT	OC	Party to 1958 Conventions HS	CS	TS/CZ
Monaco	12									
Morocco	12	200	200	200	200	4	X			
Mozambique	12		200		200					
Namibia	*		200							
Nauru	12	200	200							
Netherlands	3		200					X	X	X
New Zealand	12	200	200	200	200				X	
Nicaragua	200									
Nigeria	30		200		200			X	X	X
Niue (N.Z.)	12	200	200	200	200					
Norway	4	200	200	200	200				X	
Oman	12		200		200	4				
Pakistan	12	200	200	200	200					
Panama	200									
Papua New Guinea	12		200		200					
Peru	200									
Philippines**	12	200	200	200	200					
Poland	12		200					(X)	X	
Portugal	12	200	200	200	200	7		X	X	X
Qatar	3									
Romania	12							(X)	X	(X)
Saint Lucia	3		12							
Saint Vincent and the Grenadines	3		12							

* No known legislation but probably 12.

** Archipelagic claim.

COUNTRY	TS	FR	F	MS	EZ	LT	OC	Party to 1958 Conventions HS	CS	TS/CZ
Sao Tome & Principe*	12	200	200	200	200					
Saudi Arabia	12									
Senegal	150							X		
Seychelles	12	200	200	200	200					
Sierra Leone	200		200					X	X	X
Singapore	3		12							
Solomon Islands*	3	200	200							
Somalia	200									
South Africa	12		200					X	X	X
Soviet Union	12		200				X	(X)	X	(X)
Spain	12		200		200	7		(X)	(X)	(X)
Sri Lanka	12	200	200	200	200					
Sudan	12									
Suriname	12	200	200	200	200					
Sweden**	12		200						X	
Syria	35									
Tanzania	50									
Thailand	12	200	200	200	200			X	X	X
Togo	30		200		200					
Tonga***	30-150*							X	X	X
Trinidad & Tobago	12							X	X	X

* Archipelagic claim.

** Sweden's territorial sea is 9 nm at Kattegat and in the Baltic at Bornholm.

*** "Historic" Rectangular/Polygonal Claim - 12 nm for Minerva Reef.

COUNTRY	TS	FR	F	MS	EZ	LT	OC	Party to 1958 Conventions HS	CS	TS/CZ
T.T.P.I.	3		200							
Tunisia	12									
Turkey*	6		12							
Tuvalu	3	200	200							
United Arab Emirates	3**		200		200					
United Kingdom***	3		200					(X)	X	(X)
United States****	3	12	200		200			X	X	X
Uruguay*****	200									
Vanuatu	12		200		200					
Venezuela	12	200	200	200	200	5		X	(X)	(X)
Vietnam	12	200	200	200	200					
Western Samoa	12									
Yemen (Aden)	12	200	200	200	200					
Yemen (Sana)	12									
Yugoslavia	12							X	(X)	X
Zaire	12									

* Turkey's territorial sea is 12 nautical miles in the Black Sea.

** 12 nautical miles for Sharjah.

*** Includes Bermuda, British Virgin Islands, the Cayman Islands, the Turks and Caicos Islands, Pitcairn, Henderson, Ducie, Oeno Islands, St. Helene and Ascension.

**** Includes Puerto Rico, U.S. Virgin Islands, American Samoa, Guam, and other U.S. territories.

***** Navigation and overflight permitted beyond 12 nautical miles.

SUMMARY OF 1982 CLEARANCE REQUESTS

SHIP	COUNTRY(S)	RESEARCH PERIOD
THOMAS WASHINGTON	French Polynesia	February 82
DISCOVERER	Peru	March 82
OREGON II	Mexico[1]	July 82
KANA KEOKI	French Polynesia Fiji Solomon Islands	April-June 82
WESTWARD	U.K. (Bermuda)	April - May 82
CAPE FLORIDA	Haiti Dominican Republic Netherlands (Saba I.) U.K. (Montserrat, Tortola, Grand Turk)	May 82
NOAA Shore-Based Current-Measuring Radar	Spain	Sept - Nov 82
S.P. LEE	Tonga Vanuatu Solomon Islands	March - June 82
TURTLE/TRANSQUEST	Mexico[2]	May 82
GYRE	Canada	June-July 82
E.B. SCRIPPS	Mexico[3]	June - July 82
NOS Niagra River Hydrographic Surveys	Canada	May - October 82
VELERO IV	Mexico[4]	August 82
DELAWARE II	Canada	June 82
WESTWARD	U.K. (Bermuda) Canada	June - July 82
E.B. SCRIPPS	Canada	June - July 82
OREGON BEAVER	Mexico[5]	August & October 82

THOMAS WASHINGTON	Costa Rica Ecuador	August - Sept 82
ONAR	Canada	June - July 82
NEW HORIZON	Mexico[6]	November 82
CAYUSE/WECOMA	Mexico[7]	Nov - Dec 82
NEREID/SEAFARER	Canada	July-October 82
DELAWARE II	Canada	August-September 82
WESTWARD	Canada	July-September 82
LYNCH	Canada	August 82
KNORR	Venezuela	November 82
JOHN ISAACS	Canada	August-October 82
VIRGINIA KEY	Bahamas	September 82
HERO	Chile[8]	September 82
RESEARCHER	Peru	October-December 82
THOMAS WASHINGTON	Mexico[9]	January 83
BARTLETT	Spain Morocco	September-October 82
NOS Photogrammetric Surveys-St. Lawrence R.	Canada	October 82
KNORR	Barbados	November 82
TOWNSEND CROMWELL	Mexico	February-March 83
ALBATROSS IV	Canada	October-November 82
KNORR	Brazil[10]	November 82 - February 83
ALVIN/LULU	Bahamas	October-November 82
WESTWARD	Canada	September-October 82
WESTWARD	France (Martinique) St. Lucia	November 82

DELAWARE II	Canada	November-December 82
WESTWARD	St. Lucia St. Vincent	November-December 82
CONRAD	Brazil[11]	January-March 83
WECOMA	Peru Ecuador	January-March 83
NAUTILUS	Mexico[12]	May-July 83
OREGON BEAVER	Mexico	January-February 83
OCEANUS	Brazil[13]	February-May 83
COLUMBUS ISELIN	Brazil	May-July 83
DELAWARE II	Canada	January-March 83
CAPE HATTERAS	Bahamas	January 83
WESTWARD	Haiti Honduras	February-March 83
HARKNESS	Jamaica	January-March 83
KNORR	Brazil	August-September 83
THOMAS WASHINGTON	Chile	March-April 83
WECOMA	Mexico	November-December 83
RESEARCHER	Ecuador Peru	February-May 83
MARSYS RESOLUTE	Bahamas[14]	January-June 83

NOTES

1. Cruise cancelled due to change in ship's schedule.

2. Cruise cancelled due to electrical failure aboard DSV TURTLE.

3. Clearance granted by Mexico, however, chief scientist decided to conduct research off Canada instead.

4. Clearance granted after submission of extensive supplemental information requested at the last minute by the Government of Mexico.

5. Clearance for both cruises was denied by Mexico.

6. Clearance denied by Mexico.

7. Clearance granted in mid-cruise after particle interceptor traps had been deployed; research took place entirely outside Mexican waters.

8. Research cancelled by operating institution due to extended ship repair.

9. Clearance granted by Mexico; however, chief scientist decided to conduct all research outside Mexican waters in an area of greater scientific interest.

10 Brazilian clearance granted on an "exceptional" basis in waiving 6-month lead-time requirement.

11. Brazilian clearance granted on an "exceptional" basis in waiving 6-month lead-time requirement.

12. Research cancelled due to nonreceipt of funding.

13. Brazilian clearance granted on an "exceptional" basis in waiving 6-month lead-time requirement.

14. Research approved by Bahamas following submission of additional amplifying information.

TOTAL REQUESTS PER COUNTRY

1982

Canada - 16

Mexico - 12
Costa Rica - 1
Honduras - 1

Venezuela - 1
Brazil - 5
Chile - 2
Peru - 4
Ecuador - 3

Bahamas - 4
Haiti - 2
Dominican Republic - 1
St. Lucia - 2
St. Vincent - 1
Jamaica - 1
Barbados - 1

Fiji - 1
Solomon Islands - 2
Tonga - 1
Vanuatu - 1

U.K. - 3
France - 3
Spain - 2
Netherlands - 1

Morocco - 1

The Department of State submitted a total of 72 clearance requests to 25 foreign governments during 1982.

Two clearances were denied. Research was delayed in two other instances due to nonreceipt of timely clearance.

Canadian Regulations for Marine Scientific Research

May 1983

a. Research vessel clearance requests should be submitted at least 45 calendar days before research begins. The Canadian government may, however, require additional time to process requests for complex programs.

b. Requests should include

- a complete description of the proposed activities;
- name, length, beam, draft, tonnage, and radio call sign;
- names of master and chief scientist;
- number in vessel's scientific party;
- dates of arrival and departure to and from ports and/or waters under Canadian jurisdiction.

c. An exchange of scientific data is required when research is conducted in waters under Canadian jurisdiction.

d. Canada reserves the right to participate or be represented in the proposed research or investigations in waters under Canadian jurisdiction. Canada further reserves the right to negotiate the content of the proposed research or investigation.

e. When the above criterion have been met, the Canadian Department of External Affairs will consult with the appropriate Canadian authorities and in due course notify the requesting state that permission has been granted or refused.

f. After the Canadian authorities have authorized a vessel's activities in waters under Canadian jurisdiction, there may arise an unanticipated requirement for an alteration to the vessel's planned port or date of arrival because of inclement weather, mechanical difficulties, operational problems related to the research programme or additional port calls. In these cases, the Canadian government must be notified through diplomatic channels forty-eight (48) hours (excluding Saturdays, Sundays and holidays) prior to any change in plans. Canada will attempt to accommodate the request but cannot guarantee approval at such short notice.

g. A fishing license is required in all cases of fishing, sampling and other ichthyo-research related activities. The license must be aboard the vessel before fishing, sampling or conducting other ichthyo-research related activities.

h. All vessels entering ports and/or waters under Canadian jurisdiction must obey Canadian maritime regulations and as appropriate must report to the Canadian Coast Guard and the Department of Fisheries and Oceans.

Additional Information to be Submitted in Clearance Requests for Mexico

Brief statements should be supplied concerning the following matters:

a. The type of research results which the sponsor believes it will acquire on the particular cruise, including what utility this data will have. Please specify approximate dates on which data will be available for review and at what location it will be available for review, as well as the approximate date the final cruise report will be published;

b. The location where research data will be stored, including format in which data will be stored (i.e. magnetic tapes, films, etc.);

c. The location where research data will be analyzed and evaluated;

d. The source of funding for the particular research project;

e. A brief description of the type of marine research equipment which will be utilized during a cruise;

f. If additional cruises are planned for this project, the approximate dates for those cruises, including geographic coordinates where research will take place. If no further cruises are anticipated in support of this project, please so state; and

g. One copy of a curriculum vitae for each of the senior scientists who will participate in the cruise.

UNIVERSITY-NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

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

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

June 8, 1983

To: East Coast Ship Scheduling Group
West Coast Ship Scheduling Group
UNOLS Members
UNOLS Associate Members
Federal Agency Representatives

From: William D. Barbee
Executive Secretary, UNOLS

Subject: Report of the Joint Meeting of the East and West Coast Ship Scheduling Groups, May 25, 1983.

This distributes the Report of the separate and joint meetings of the East and West Coast Ship Scheduling Groups held May 25, 1983. The results of this meeting maintain the projections of February, 1983 for heavy ship use in 1983 and 1984.

This Report will be appended to the Minutes of the May 26, 27, 1983 UNOLS Semi Annual Meeting.

cc: Advisory Council (old and new members)

EAST COAST SHIP SCHEDULING GROUP
WEST COAST SHIP SCHEDULING GROUP
REPORT OF JOINT MEETING
May 25, 1983

The East and West Coast Ship Scheduling Groups met separately and jointly at the National Science Foundation, Washington, D.C. on May 25, 1983. Attendees are shown on Attachment 1.

The meeting was called to order in joint session by East Coast Chairman, Robertson P. Dinsmore at 9:00 a.m. Objectives of the meeting were set: to produce estimates of 1983 operating costs and to project 1984 operating costs and ship schedules (Attachment 2). The meeting was then split into East Coast and West Coast sessions to work on regional sets of funding and schedule projections under Chairmen Dinsmore and John Martin (West).

1983 Schedules and Funding: Institutions reviewed their 1983 schedules and estimated operating costs. Except as noted below, schedules and funding projections have not changed substantially since February, 1983. (A new summary is not provided.)

Changes in 1983 projections include:

Funded projects for the ALPHA HELIX have fallen significantly short of expectations. The result is an extremely light year for the ALPHA HELIX.

A considerable portion of the potential use for the VELERO IV could be met more effectively with a more able vessel.

Other funding has materialized or is in negotiation, resulting in more efficient schedules for a number of vessels (eg., CAYUSE, CAPE HENLOPEN, KANA KEOKI).

The THOMPSON will have completed her midlife refit by the end of May, on schedule and under budget.

The WASHINGTON enters midlife refit.

The ATLANTIS II will complete modification and be operational about 1 October, (in support of ALVIN).

The University of Texas provided cost and schedule information for the FRED J. MOORE.

1984 Funding and Schedule Projections: Projected ship use for 1984 is approximately 20% above that for 1983. Further, schedules appear to be better defined (i.e., larger percentage supported by funded science projects) than at this time in some previous years.

Factors increasing the projected use are: generally heavy schedules for all ships, full seasons for the ATLANTIS II, THOMPSON and WASHINGTON, and inclusion of the MOORE in the summaries.

Ship use and funding by other Federal agencies (e.g. USGS, NOAA, DOE) and by states, universities and others have increased modestly. At their present stage projections show level ONR use and funding.

In comparing ship time requests and schedules for individual institutions, a number (less than a dozen) unfilled requests were noted. At the same time, new information on projected funding eliminated a few tentative projects from consideration. Some schedules were adjusted (e.g. THOMPSON) to accommodate these changes. There remain a small number of projects not yet accommodated either because they are logistically isolated or a suitable vessel has not been found. These projects will be considered as funding and schedules are refined.

Provisional time line schedules for UNOLS ships are shown in Attachment 3.

Estimates of 1984 operating costs are shown in Attachment 4.

At 1:30 p.m. the two Scheduling Groups met jointly to develop combining cost and schedule projections. A summary of 1984 cost projections follows:

		$M			May 25, 1983
1984	NSF	ONR	OTHER	TOTAL	
West	12.535	1.847	2.506	16.888	
East	16.142	2.097	4.344	22.583	
TOTAL	28.677	3.944	6.580	39.471	

Similar projections made in February, 1983:

West	13.926	1.934	1.992	17.852
East	14.184	2.560	4.224	20.968
TOTAL	28.110	4.494	6.216	38.820

Note that in these projections NSF costs include Division of Polar Programs and Scientific Ocean Drilling projects. (See Attachment 4 for details.)

Federal Agency funding for 1984: Mr. Ron La Count, NSF, provided the following information on NSF funding:

	$M			
Budget Category	Year 1981	1982	1983	1984 (est)
5410 (Ship Operations)	20.21	20.46	22.18	23.4
5420 (Constr., Conversion)	1.97	1.25	1.09	1.3
5430 (Instr., Equip.)	2.01	4.07	3.98	4.2
5440 (ALVIN, techs, etc.)	2.58	3.12	3.75	4.5
	26.77	28.89	31.0	33.4

Mr. Keith Kaulum noted that ONR funding for ship operations in 1984 would not change drastically from that in 1983, although special focus programs might result in changes in kinds and areas of investigation.

Uniform Costs and Proposals: A short discussion was held concerning uniform cost projections and proposals. It was suggested that the need for uniform methods be addressed through the Research Vessel Operator's Council or by special workshops.

The meeting was adjourned at 3:30 p.m.

Attachment 1

East and West Coast Ship Scheduling Group
May 25, 1983
Attendees

Thomas C. Aldrich, U.S. Geological Survey
William Barbee, UNOLS Office
J. F. Bash, University of Rhode Island
Douglas Caldwell, Oregon State University
Frisbee Campbell, University of Hawaii
Larry Clark, National Science Foundation
Bruce K. Cornwall, Johns Hopkins University, CBI
Thomas A. Davies, University of Texas at Austin
E. R. (Dolly) Dieter, University of Alaska
J. D. Donnelly, Woods Hole Oceanographic Institution
Peter W. Hackor, National Science Foundation
Lawrence W. Harding, Jr., Johns Hopkins University, CBI
Donald F. Heinrich, National Science Foundation
Tom Johnson, Duke/University of North Carolina
Keith Kaulum, Office of Naval Research
Henry Kennedy, Lamont-Doherty Geological Observatory
Ronald La Count, National Science Foundation
Brian Lewis, University of Washington
Bruce Malfait, National Science Foundation
John Martin, Moss Landing Marine Laboratories
John G. McMillan, National Science Foundation
Isabel Miles, Johns Hopkins University, CBI
William H. Mitchell, University of Texas at Austin
John Morrison, National Science Foundation
Wadsworth Owen, University of Delaware
Tom Royer, University of Alaska
Alexander Shor, Lamont-Doherty Geological Observatory
George Shor, Scripps Institution of Oceanography
Mitchell Stebens, UNOLS Office
T. K. Treadwell, Texas A&M University
Joe Ustach, Duke/University of North Carolina
John C. Van Leer, University of Miami

Robert Wall, National Science Foundation
Don Walsh, University of Southern California
Boyce Watkins, University of Washington
Richard West, National Science Foundation

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of university oceanographic facilities

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

May 9, 1983

To: East Coast Scheduling Group
West Coast Scheduling Group

From: William D. Barbee
Executive Secretary, UNOLS

Subject: Meetings, May 25, 1983

The Summer Meetings for the East Coast and West Coast Ship Scheduling Groups together with a joint meeting of the two groups are scheduled for Wednesday, May 25, 1983. The meetings will be in Rooms 628 and 643 at the National Science Foundation, 1800 G Street NW, Washington, D.C.

May 25, 1983, 9:00 A.M., NSF

AGENDA

1. Quick review of 1983 ship schedules and related support in order to identify any problem areas or recent changes.

2. Review and discussion of projected 1984 ship schedules and operating data. Compare with ship request inventories to identify duplications, omissions or schedule problems.

3. Compare projected costs with anticipated funding.

4. Make recommendations to address any schedule problems or funding shortfalls noted.

February, 1983 Scheduling Meetings

Operations cost estimates for 1983 and projections for 1984 (as developed at the February meetings) are summarized in Attachment 1. Details of those estimates are shown in:

Attachment	Contents
2	1983 Cost Summary, East Coast Ships
3	1984 Cost Projection, East Coast Ships
4	1983 Cost Summary, West Coast Ships
5	1984 Cost Projection, West Coast Ships (revised February 23, 1983).

Materials for May 25 Meeting

In order that the meetings can progress effectively, each UNOLS institution is requested to provide to the UNOLS Office by May 20, 1983, and bring to the meetings the following updated information:

1. A simple time-line schedule for 1984 operations of each ship operated. Forms (and an example) are provided. These schedules will be provisional, but will, nevertheless, be the best available information.

2. Update of 1983 Cost and Operating estimates. Please fill out entries for your institution on the forms provided, furnish them to the UNOLS Office and bring copies to the meeting.

3. Update of 1984 Cost and Operating Projections. Again, fill out the forms provided and furnish them to the UNOLS Office and bring copies with you.

The UNOLS Office will summarize the schedule and cost information received from institutions and provide those updated summaries at the meeting.

WDB:gm
Attachments:

1984

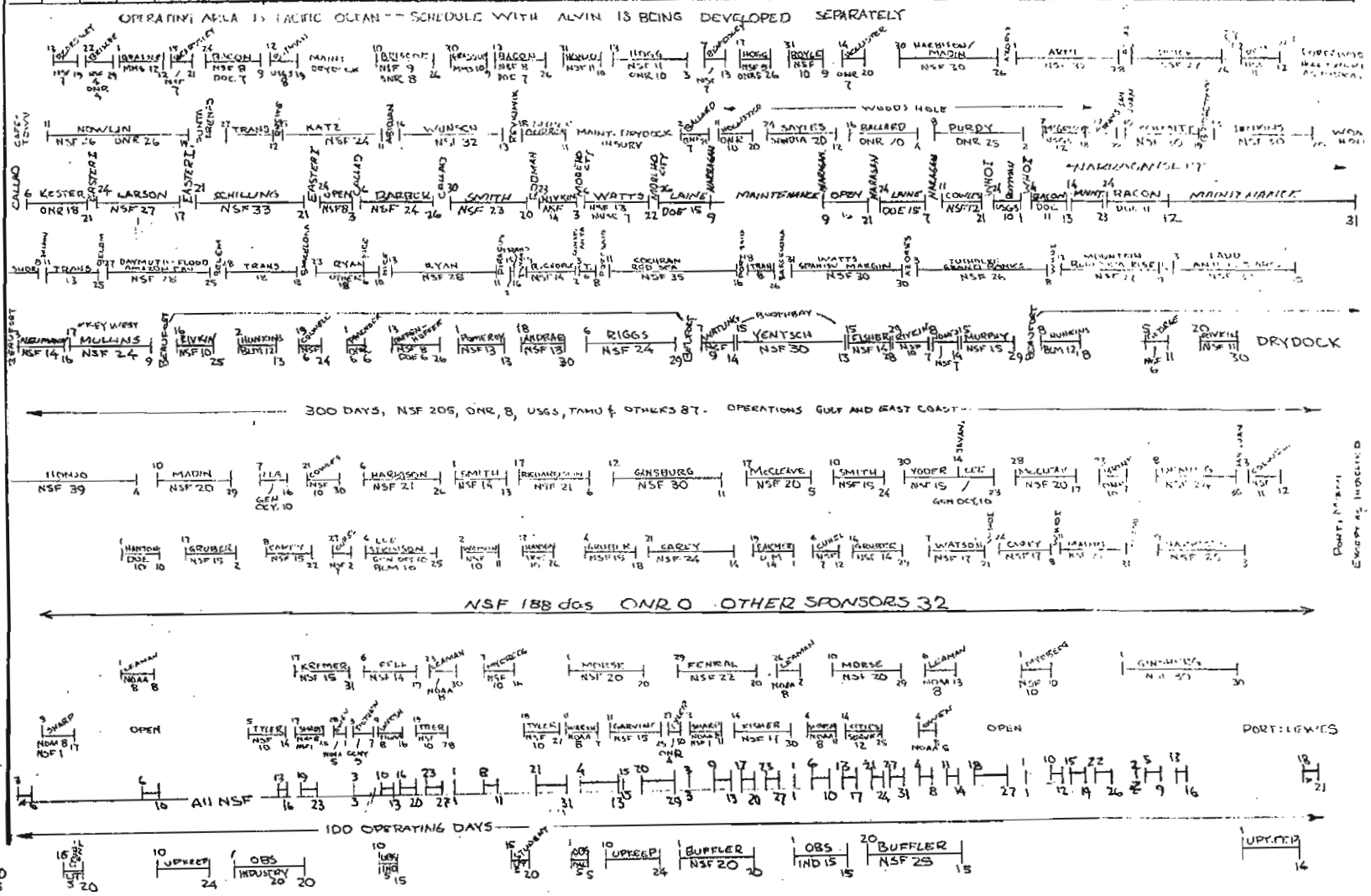
UNOLS

Proposed East Coast Ship Schedules

MAY 1983

1984

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC



ATLANTIS II

OCEANUS NSF 147 D.C. 14 ONR 34 MMS 22 USGS 8 TOT 265

KNORR NSF 176 ONR 88 SANDIA 20 USGS 12 TOT 296

ENDEAVOR NSF 174 ONR 18 DOE 41 NUSC 7 USGS 10 OPEN 13 TOT. 263

CONRAD NSF 340

CAPE HATTERAS NSF 214 RUM 24 ONR 6 DOE 6 TOT 250

GYRE NSF 205 ONR 8 OTHER 87 TOT. 300

C. ISELIN NSF 260 ONR 10 GEN OCY. 20 TOT 290

CAPE FLORIDA NSF 187 DOE 20 G.O. 10 RUM 10 CIM 14 TOT 241

BLUE FIN NSF 188 ONR 0 OTHER 32

CALANUS NSF 141 NOAA 32 TOT 173

CAPE HENLOPEN NSF 66 NOAA 58 ONR 4 OTHER 17 145

R. WARFIELD NSF 160

LONGHORN

MOORE NSF 45 UT 10 INDUSTRY 45

Ports, Marks Except as Indicated

1984

UNOLS

PROPOSED WEST COAST SHIP SCHEDULES

MAY, 1983

APPENDIX XIII (10)

1984

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

ALPHA HELIX NSF 227, ONR 10, OTH 11 — 248

T. THOMPSON NSF 201, ONR 60 — 261

WECOMA NSF 219, DOE 5, TBS* 31 — 255

CAYUSE NSF 104, OTHER 31, MMS 61, MLML 18, TOT. 214

VELERO IV NSF 194, NASA 12 — 206

* MELVILLE NSF 119, SAUDIA 22, DPP 84, ONR 20, TOT. 245

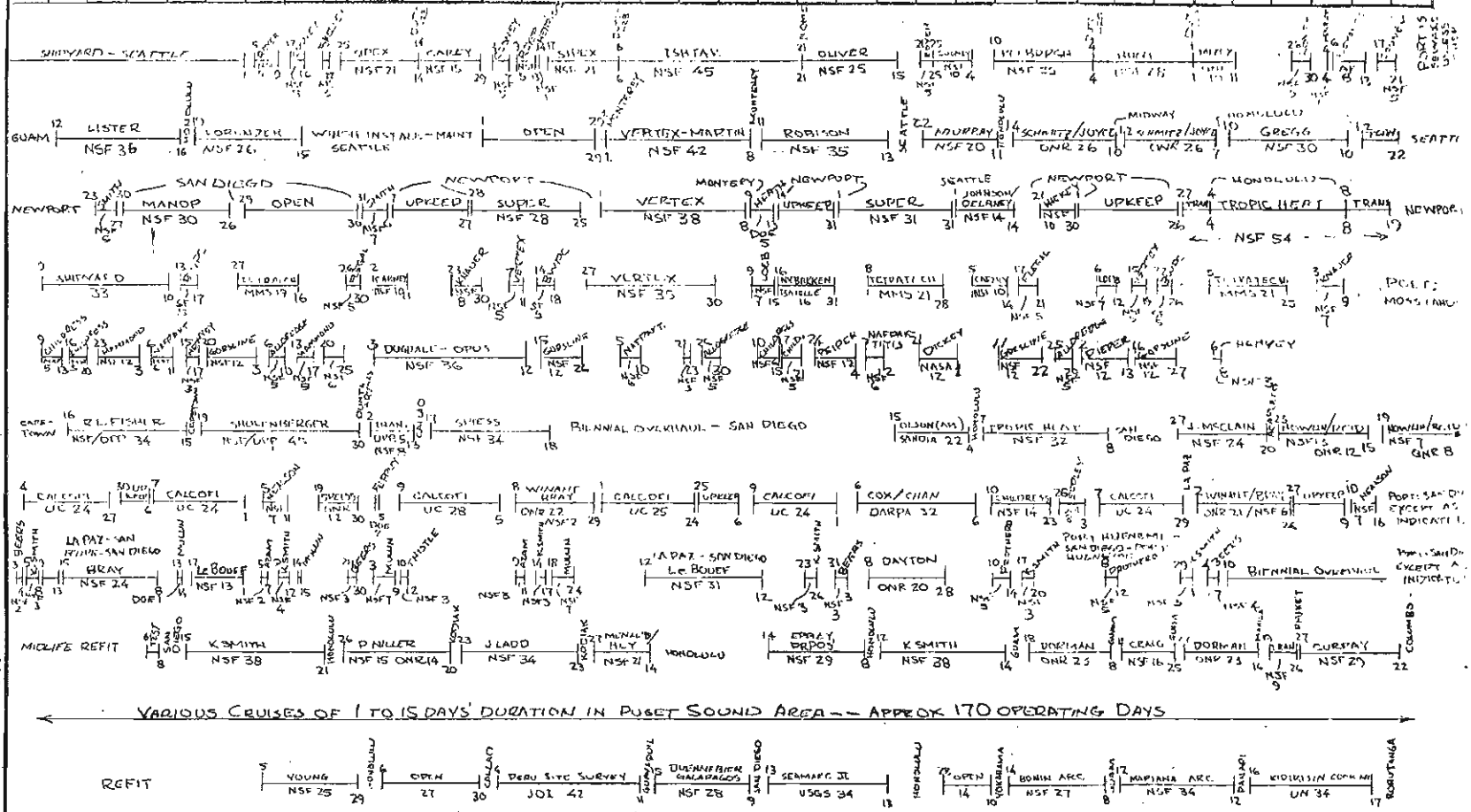
NEW HORIZON DARPA 32, DOE 149, NSF 36, ONR 55, DOE 10, TOT 282

E.B. SCRIPPS NSF 136, ONR 10, DOE 2 — 148

* T. WASHINGTON NSF 229, ONR 60 — 289

BARNES NSF 140, OTHER 30

MOANA WAVE



TBS* - To be scheduled. * Alternate MELVILLE, WASHINGTON SCHEDS, NEXT PAGE

1984

ALTERNATE UNUSED

PROPOSED WEST COAST SHIP SCHEDULES

MAY, 1983

APPENDIX XIII (11)

1984

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

ALPHA HELIX

T. THOMPSON

WECOMA

CAYUSE

VELERO IV

ALTERNATE
MELVILLE NSF/DPP 84
NSF/OFS 130
ONR 20
SANDIA 22
256

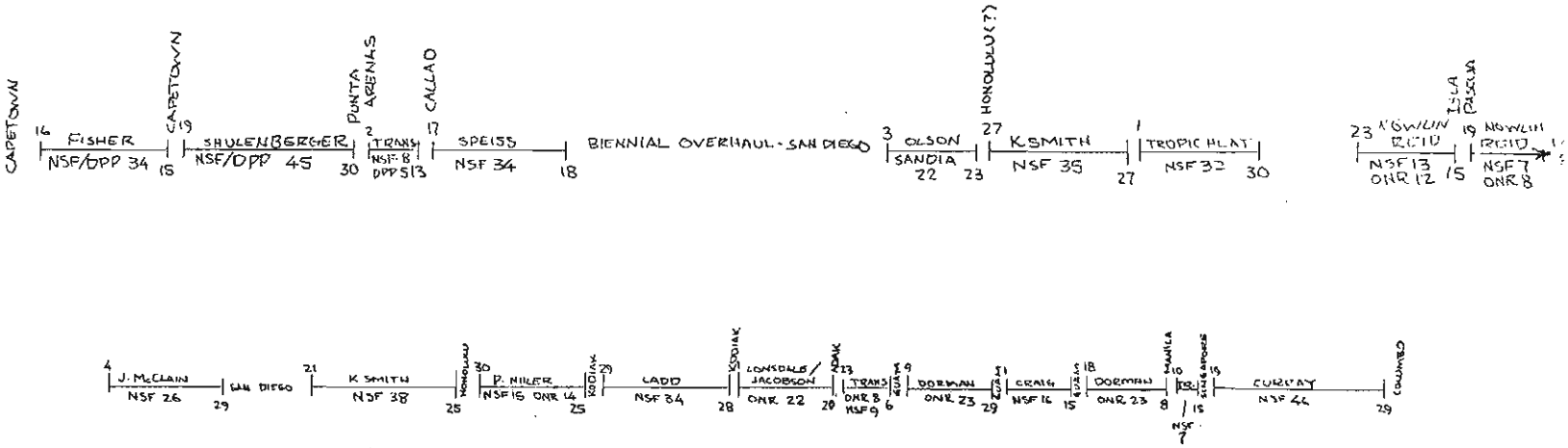
NEW HORIZON

E.B. SCRIPPS

ALTERNATE
T. WASHINGTON NSF 191
ONR 90
TOT 281

BARNES

MOANA WAVE



May 25, 1983

EAST COAST SHIP FUNDING PROJECTIONS

1984 PROJECTIONS

SHIP	OP DAYS	NSF $K	ONR $K	OTHER $K	OTHER $K	OTHER $K	TOTAL $K
ATLANTIS II	300	1,600	530	NOAA 530	UNSPEC 530		3,190
KNORR	296	2,022	1,012	SANDIA 230	USGS 138		3,402
CONRAD	340	2,980	0				2,980
ENDEAVOR	275	1,389	134	DOE 306	USGS 75	52 NUSC 98 UNSPEC	2,054
OCEANUS	265	1,412	257	USGS 60	DOE 105	MMS 166	2,000
ISELIN	290	1,690	65	GenO 130			1,885
GYRE	300	1,300	50	USGS 500	TAMU 50		1,900
CAPE HATTERAS	250	1,168	33	BLM 131	DOE 33		1,365
CAPE FLORIDA	241	946	0	101 DOE 71 UofM	GenO 51	BLM 51	1,220
CAPE HENLOPEN	145	270	16	NOAA 190	UNSPEC 74	UDel 50	600
RIDGELY WARFIELD	190	650	0				650
LONGHORN	100	0	0	UNSPEC 110			110
BLUE FIN	230	150	0	DOE 26			176
CALANUS	173	205	0	NOAA 46			251
MOORE	100	360	0	INDUSTRY 360	STATE 80		800
TOTAL	3,495	16,142	2,097		*4,344		22,583

*OTHER FUNDING

NOAA	766	INDUSTRY	541	UNIV/STATE	251	
USGS	773	MMS/BLM	348	SANDIA	230	4,344
DOE	571	NUSC	52	UNSPEC	812	

May 25, 1983

WEST COAST SHIP FUNDING PROJECTIONS

1984 PROJECTIONS

SHIP	OP DAYS	NSF $K	ONR $K	OTHER $K	OTHER $K	OTHER $K	TOTAL $K
MELVILLE	245	996 DPP 1,411 OFS	237	DOE 261			2,905
WASHINGTON	289	2,399	629				3,028
NEW HORIZON	282	225	343	DOE 62	UC 930	DARPA 200	1,760
E.B. SCRIPPS	148	420	31	DOE 6			457
VELERO IV	206	778		NASA 48			826
CAYUSE	160	343	---	MLML 65	MMS 65	SanFr 49	522
WECOMA	255	1,533		DOE 35	217		1,785
THOMPSON	261	1,781	532				2,313
BARNES	220	136		20			156
ALPHA HELIX	210	1,416	75			82	1,573
KANA KEOKI	---	---	---	---	---	---	---
MOANA WAVE	265	295 JOI 802				GS&UN 466	1,563
TOTAL	2,541	12,535	1,847		*2,506		16,888

*OTHER FUNDING

DOE	364	MLML	65	
DARPA	200	City San Fran	49	
UC	930	MMS	65	2,506
NASA	48	GS&UN	466	
		Unspecified	319	

East and West Coast Ship Funding Projections for 1984

	OP DAYS	NSF	ONR	OTHER	TOTAL
ATLANTIS II	300	1,600	530	1,060	3,190
MELVILLE	245	2,407	237	261	2,905
KNORR	296	2,022	1,012	368	3,402
THOMPSON	261	1,781	532	0	2,313
WASHINGTON	289	2,399	629	0	3,028
CONRAD	340	2,980	0	0	2,980
MOANA WAVE	265	1,097	0	466	1,563
ENDEAVOR	275	1,389	134	531	2,054
OCEANUS	265	1,412	257	331	2,000
WECOMA	255	1,533	0	252	1,785
ISELIN	290	1,690	65	130	1,885
NEW HORIZON	282	225	343	1,192	1,760
GYRE	300	1,300	50	550	1,900
ALPHA HELIX	210	1,416	75	82	1,573
CAPE HATTERAS	250	1,168	33	164	1,365
CAPE FLORIDA	241	946	0	274	1,220
CAPE HENLOPEN	145	270	16	314	600
VELERO IV	206	778	0	48	826
RIDGELY WARFIELD	190	650	0	0	650
CAYUSE	160	343	0	179	522
E.B. SCRIPPS	148	420	31	6	457
LONGHORN	100	0	0	110	110
BLUE FIN	230	150	0	26	176
BARNES	200	136	0	20	156
CALANUS	173	205	0	46	251
(MOORE)	100	360	0	440	800
TOTAL	6,036	28,677	3,944	6,850	39,471

UNIVERSITY-NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

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

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

Dear Colleague:

The enclosed document describes a UNOLS initiative that is proposed to assist in the planning of major expeditions on UNOLS vessels.

The essence of the proposal is to put the planning of major expeditions to an earlier date relative to the ship operating year. It should be emphasized that this earlier planning does not, and should not, apply to the whole UNOLS fleet or even the total available time on large and intermediate vessels. It is important that some flexibility be maintained to meet urgent local and regional needs on shorter time scales.

It is also important to recognize that this proposal is an experiment and that the procedures that are now envisaged may have to evolve to meet the broad scientific needs of the academic community. The success of this venture depends upon the full cooperation of scientists, operating institutions and agencies and I hope that we can work together to assure that our opportunities for global ocean studies are maximized.

I look forward to discussions of this process and its adoption at the coming Semiannual Meeting.

Yours sincerely,

for Derek W. Spencer
Chairman

UNOLS NATIONAL EXPEDITIONARY PLANNING PROGRAM (UNEPP)

The science of oceanography has many global applications and requirements which have demanded, and will continue to demand, extended expeditions for the acquisition of new data and for the conduct of major ocean experiments. Such expeditions, particularly those that involve voyages to remote locations or those that are logistically complex, are becoming increasingly difficult to undertake for reasons that are largely independent of the scientific needs but are significantly affected by the economic and political realities that influence the conduct of modern science.

The decrease in the total UNOLS global fleet capabilities, the devolvement of agency funding from expeditions to individual legs, the decreased probability of funding of individual proposals together with the almost complete dependence of oceanography on federal support have been major factors contributing to the problems of both planning and operating expeditionary cruises on the time scales to which we have been accustomed. These factors, however, have not removed either the scientific need for or investigator interest in programs that demand extended expeditions.

Further, recent developments and acquisitions of equipment such as Seabeam, multichannel seismic and the ALVIN/ATLANTIS II combination together with special time dependent needs of several future programs and the site survey requirements of future ocean drilling operations indicate an urgent need for more extensive pre-planning of academic ocean expeditions.

UNOLS has established a National Expeditionary Planning Program with four objectives:

1. To provide for and assure global ocean research investigations by assisting scientists, institutions, and agencies in the planning of major expeditions that require extended blocks of ship time and special facilities.

2. To increase communications between scientists, operating institutions and agencies and to alert all, on a timely basis, to potential ocean science opportunities, to facilities requirements of these opportunities and to funding requirements.

3. To coordinate the expeditionary requirements with the overall ship scheduling process and maximize the efficient use of all UNOLS vessels.

4. To alert institutions and agencies to the need for special facilities demands that do not currently exist.

OPERATION OF UNEPP

The National Expeditionary Planning Program will function through a permanent UNOLS committee, the UNOLS National Expeditionary Planning Committee (UNEPC) which will be responsible for the preliminary identification and scheduling of major expeditionary operations.

Scientists with plans for programs that involve operations in remote areas, multiple large or intermediate vessels, extended multiple leg voyages, with special instrumentation or submersible needs or with other logistically complex operations will be invited to submit letters of intent to the committee. The letters of intent should briefly describe the objectives of the program and give preliminary indications of the ship(s) characteristics and time required, the area(s) of operations and any special facilities needs. The solicitation of the letters of intent will include the current procedures used by the Alvin Review Committee.

The committee after examination of these letters will identify possible major expeditionary cruises, suggest tentative assignments of vessels and facilities, identify possible conflicts and gaps, identify possible accessory science opportunities and produce a preliminary planning report to be distributed to the scientists, institutions and agencies.

In order that scientists may have adequate time for the development of research proposals a preliminary planning report will be distributed about thirty months prior to the actual operating year. The report will be based upon information contained in letters of intent that were solicited thirty-six months before the operating year.

Following the distribution of the report scientists will be encouraged to submit proposals to funding agencies for participation in the cruises. In the case of major extended expeditions, UNOLS can conduct planning workshops, probably in association with national scientific meetings, that will allow increased opportunities for communication between interested scientific participants, operating institutions and agencies.

It is a goal of this program to achieve science funding decisions for about 70% of the major expeditionary work twelve months prior to the ship operating year. Such a decision schedule is critical to effective planning of expeditions which may, from time to time, occupy significant and even major fractions of the total available time on large and intermediate vessels. To achieve that schedule, UNOLS will strongly encourage that science proposals be submitted to meet the June target dates (eighteen months prior to the ship operating year) so that agencies can complete reviews and make funding decisions before expedition plans reach a final stage.

The benefits of such a planning and decision schedule are numerous and include:

1. Scientists will have greater assurance of vessel availability at times and locations most suitable for their needs.

2. Ancillary science opportunities will be enhanced by earlier identification of principal programs.

3. Opportunities for vessel exchanges, with foreign countries will be increased by earlier planning which, in turn, will provide more flexible opportunities for U.S. scientists.

4. Adequate time will be available for processing foreign clearance requests and for identification of clearance problems before they impact adversely on vessel operations.

5. Agency future planning and budgeting will be aided by earlier indications of scientific program needs and facilities.

6. More efficient scheduling and operation of the UNOLS fleet will be possible. In particular, years of possible reduced use of large vessels may be identified early and plans for cost effective temporary layups can be started. Further, extensive proposed distant-water operations coincident with heavy regional ship use can be identified and plans can be implemented to provide ship time, as needed, on vessels of other fleets.

7. Commmunity-wide communication of research interests will provide increased opportunities for cooperation and stimulate more scientifically effective use of major expeditionary time.

UNOLS NATIONAL EXPEDITIONARY PLANNING
Notification of Intent

Submit to: Chairman, UNEPC, UNOLS Office, WB-15
School of Oceanography
University of Washington
Seattle, Washington 98195

Principal Investigator:
Name — Institution
Title — Names of Other Co-investigators
Address
Telephone No.

Principal Program Objectives:(use additional sheets as necessary)

Areas of Proposed Operations:

Expected Years of Operations (for multi-year programs):

Anticipated Foreign Clearances:(for work within 200 nm of coastal states)

Names and Affiliations of Foreign Collaborators (if any):

Approximate Dates of Proposed Work:

Suitable Alternate Dates:

Vessel Requirements (Nos.,large, intermediate):

Anticipated Size of Scientific Party:

Special Facilities Needs:

Special Constraints (time, radio isotope clean ship, etc):

Proposed Funding Sources:

Signature:_____ Date:_____

A POSSIBLE OPERATING SCHEDULE FOR UNEPP

The actual operation of the UNEPP scheduling process needs to be evolved by the committee working with the community and agencies. The following is a suggested set of procedures and time scale.

TIME PRIOR TO JANUARY 1 OF OPERATING YEAR (IN MONTHS)	OPERATIONS AND ACTION
-36	*UNEPC solicits community and institutions and agencies for information on expedition planning for 36 months and beyond the current date.*
	Notifications of intent delivered by principal investigators to the UNOLS Executive Secretary for distribution to the UNEPC (and the Alvin Review Committee where appropriate).
-30	*UNEPC meets to assess information; to outline possible major cruise areas, dates, conflicts; to assess the need for other supporting programs and special facilities requirements; to establish tentative vessel assignments for major expeditions; to estabish need for and possibility of foreign exchanges and clearances.*
-30 to -27	*UNEPC issues preliminary expedition report to community, institutions and agencies.*
-27 to -16	*UNEPC, with agency assistance tracks proposal response and adjusts outlook for operations; communicates adjustments at UNOLS semi-annual meetings.*
-16 to -12	Submission of proposals and agency funding actions for expeditionary work.
	UNEPC meets to establish defined operating areas and requirements for major expeditions based upon reasonably firm funding and proposals; identifies possible reduced operating schedules and recommends, if necessary, plans for temporary layups.
-11	*UNEPC issues final report to UNOLS Regional Scheduling Committees and agencies for inclusion in the regular regional scheduling process.*
-11 to -6	UNOLS Regional Scheduling committees establish final schedules.
-6 to -3	Final operating schedules issued for all UNOLS vessels.

THE UNOLS NATIONAL EXPEDITIONARY PLANNING COMMITTEE
A STANDING COMMITTEE OF UNOLS

CHARGE

The UNOLS National Expeditionary Planning Committee (UNEPC) shall provide communications between scientists, operating institutions and funding agencies that will allow the timely and effective planning of major expeditionary operations by UNOLS Member Institutions.

The UNEPC shall establish such communications mechanisms as are desirable and necessary to provide community-wide information on probably and possible future vessel operations pertaining to extended or logistically complex voyages and shall provide preliminary schedules for these voyages. The UNEPC, together with the ALVIN Review Committee and appropriate operating institutions, shall coordinate the planned use of special facilities such as Seabeam, Multichannel Seismic, submersible operations and others as may be deemed necessary with the expeditionary voyage schedules.

The UNEPC shall deliver an annual report to the UNOLS regional scheduling committees no later than eleven months prior to the year of vessel operations.

The chairman of the UNEPC will report on the planning progress at the regular UNOLS semi-annual meetings.

The UNEPC shall consist of:

1. Chairman: elected by UNOLS members from the community at large. To serve a three year renewable term.

   One member appointed by each of UNOLS member institutions operating Class A, B, or C vessels. These include:

2. University of Washington
3. Oregon State University
4. Scripps Institution of Oceanography
5. University of Hawaii
6. Texas A&M University
7. University of Miami
8. Lamont-Doherty Geological Observatory
9. University of Rhode Island
10. Woods Hole Oceanographic Institution

11. A member of the UNOLS Advisory Council appointed by the Chairman of the Advisory Council.

12. The Chairman of the Alvin Review Committee.

13. The UNOLS Executive Secretary (staff)

The chairman of UNEPC shall appoint two of the above members (2) to (10) to act in a liaison capacity with the East and West Coast Regional Scheduling Committees.

UNIVERSITY - NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

MAY 1983

UNOLS NOMINATION COMMITTEE

The Nomination Committee has assembled the following slate of candidates for UNOLS and Advisory Council positions to be filled at the May, 1983 Semiannual Meeting.

The Slate

For Chairman, UNOLS:

Dirk Frankenberg	UNC/Duke University Consortium
Ferris Webster	University of Delaware

For Vice-Chairman

Joseph Curray	UCSD - Scripps
J. R. Schubel	SUNY - Stony Brook

For Advisory Council - Member Representation (Elect Two)

Robertson P. Dinsmore	W.H.O.I.
Brian Lewis	University of Washington
Charles Miller (Incumbent)	Oregon State University
Martha Scott	TAMU

For Advisory Council - Associate Member Representation

Robert A. Ragotskie	University of Wisconsin - Madison
Harris B. Stewart, Jr.	Old Dominion University

VITAE

Name/Discipline
Present Occupational Status
Title
Research Interest

Dr. Dirk Frankenberg, Biological Oceanography
Professor of Marine Sciences, Univ. of N.C. at Chapel Hill
Director of Marine Sciences Program
Biological Oceanography, Ecology of Macro-benthos, Oxygen Phenomena in Estuaries

Dr. Ferris Webster, Physical Oceanography
Professor of Oceanography, University of Delaware
Currents and Circulation; Tides and Waves

Dr. Joseph R. Curray, Marine Geology
Professor of Oceanography and Research Geologist
Scripps Institution of Oceanography
Sediments; Structures; History of Continental Margin

Dr. Jerry R. Schubel, Marine Geology
Director, Marine Science Research Center
State University of New York - Stony Brook
Sedimentology, Hydrology, Coastal Zone Management;
Environmental Engineering, Geophysical Exploration

Captain Robertson P. Dinsmore, Oceanography
Consultant for Marine Operations, Woods Hole Oceanographic Institution
Marine Operations, Ocean Policy, Program Administration

Dr. Brian T. R. Lewis, Geological Oceanography
Associate Professor of Oceanography, University of Washington
Associate Director for Research, School of Oceanography
Seismology; Geophysics

Dr. Charles Miller, Biological Oceanography (Incumbent)
Professor, Oregon State University
Zooplankton; Crustacea

Dr. Martha Richter Scott, Marine Geochemistry
Assistant Professor of Oceanography
Texas A & M University
Interaction of Land-derived Materials With Sea Water

Dr. Robert A. Ragotzkie, Meteorology and Oceanography
Director, Sea Grant Institute
University of Wisconsin - Madison
Currents and Circulation; Zooplankton, Air-sea Interaction;
Limnology, Meteorology

Dr. Harris B. Stewart, Jr., Geological Oceanography
Director, Center for Marine Studies
Old Dominion University
Geomorphology, Sedimentology