

UNIVERSITY - NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM



### EAST COAST SHIP SCHEDULING GROUP WEST COAST SHIP SCHEDULING GROUP Report of Joint Meeting July 14, 1987

Board Room American Institute of Architects 1735 New York Avenue Washington, D.C.



East Coast Ship Scheduling Group West Coast Ship Scheduling Group Report of Joint Meeting Board Room American Institute of Architects 1735 New York Avenue Washington, D.C.

East and West Regional Ship Scheduling Groups met at 8:30 a.m., July 14, 1987 in the Board Room, American Institute of Architects, Washington, D.C. The meeting was co-chaired by Michael Rawson, L-DGO, East Group chairman and George Shor, Jr., Scripps, West Group chairman.

Notification of the meeting, agenda and request for scheduling/operating information were distributed by UNOLS Office letter dated June 26, 1987 (Appendix I). The main objective in the meeting was to reach workable, effective schedules for the UNOLS fleet in 1988. Efforts were made to assure that all valid (funded) ship time requests were accommodated and to eliminate double bookings.

George Shor called the meeting to order and then introduced Stuart J. White and Frank Verdon, Natural Environment Research Council, United Kingdom.

Ship Schedules and Operating Costs for 1988. Individual presentations were made outlining tentative schedules for 1988, funding status of projects scheduled, estimated costs and days operated and listing any ship-time requests that were not accommodated in their tentative schedules by ship and institution.

The 1988 schedules are characterized for each ship in the UNOLS fleet. (These remarks are on schedules still tentative; funding decisions could result in significant changes.)

ALPHA HELIX. Strong schedule beginning in March in Gulf of Alaska, southeast Alaska, Bering Sea, Prince William Sound and, ending in December, Gulf of Alaska. About 90% funded.

ATLANTIS II. Strong schedule, all in support of ALVIN dive projects. All work in eastern Pacific, from California Basins, Guaymas, EPR/Galapagos, Gorda-Juan de Fuca and continental slope off Oregon, more California Basins and, finally, eastern Pacific seamounts. November transit to Woods Hole for AII and ALVIN maintenance, overhaul and upgrade. Virtually all work funded under tri-agency agreement.

BARNES. Numerous short trips in Puget Sound. Could accommodate additional Puget Sound work during most months.

BLUE FIN. Short trips in coastal waters off southeastern United States. Could accommodate additional short cruises in the area.

CALANUS. Relatively heavy schedule in Straits of Florida and Caribbean Islands. About 50% already funded.

CAPE HATTERAS. Moderate schedule in Bahamas, mid-Atlantic shelf and western Atlantic, Caribbean, Blake Plateau and mid-Atlantic shelf and slope. Based about 60% in newly-submitted science projects.

CAPE HENLOPEN. Relatively open schedule in Delaware Bay, mid-Atlantic coast, Georgia Embayment and Long Island Sound. Could accommodate additional projects in most months, especially September and after. About 90% of present schedule is funded.

CAYUSE. Not in service. Awaiting reassignment, transfer.

**CONRAD.** Schedule highly dependent on pending science decisions. Projects in Caribbean, Chile Triple Junction, mid-Atlantic Ridge, eastern north Atlantic, Mediterranean and North Sea.

ENDEAVOR. Heavy schedule beginning in northwest Atlantic, cross Atlantic to Canary Basin, work in Arctic and end season in northwest Atlantic. A few double booked projects. About 50% funded.

**GYRE.** Schedule begins in Gulf of Mexico, then Barbados equatorial Atlantic transect, Canary Basin, Gulf of Cadiz, off Amazon, equatorial transects and ends in Gulf of Mexico. Schedule includes some double-booked projects; most science projects pending.

**ISELIN.** Strong schedule begins Bermuda Rise, then Caribbean, off Amazon, equatorial Atlantic, Bahamas, off Amazon, Caribbean, Amazon, equatorial Atlantic and Sargasso. Schedule includes some double-booked projects. About 80% funded.

**KNORR.** Schedule begins in south Atlantic, then to Mediterranean and Black Sea (March through October) and return to Woods Hole. Schedule mostly funded. Schedule not extended beyond October pending decision on order of AGOR-14, 15 renovation.

LAURENTIAN. Schedule for May through November in Lake Michigan except for July-August project in Erie and Ontario.

MELVILLE. Schedule begins in transit from Easter Island, then along California coast, to Galapagos, then Gorda-Juan de Fuca, and projects off California through September. Schedule for October and later tentative pending AGOR-14, 15 decisions.

MOANA WAVE. Heavy schedule beginning in transit to Guam, then Indonesian Sea, China/Sulu Sea, western Pacific, Phillipines, Marshall Islands and (tentatively) Java Plateau and Havre Trough (southern Ocean). About 75% funded.

FRED H. MOORE. Tentative schedule withdrawn. Most projects on other ships, most not yet funded.

NEW HORIZON. Heavy schedule begins off California, to northwest coast (May) and return to California coast. About 60% funded.

OCEANUS. Heavy schedule begins northwest Atlantic, crosses Atlantic to Azores and via North Sea, return to northwest Atlantic, then Bermuda and mid-Atlantic, ending in Bridgetown. Few double bookings. About 60% funded.

**OSPREY.** Schedule for May through August, off Peru, then Santa Barbara Bight, central California coast. Most funding decisions pending. Rest of year to complete conversion and install equipment.

**POINT SUR.** Schedule begins with VERTEX to 139W, then off central California, Monterey, Bodega and San Francisco Bays, repeat VERTEX and finish with projects off west coast, California to Washington. Over 90% funded.

**ROBERT G. SPROUL.** Relatively heavy schedule, mostly off California, one project Gulf of California. Open periods March, November, December. About 65% funded.

THOMAS G. THOMPSON. Three-project schedule, off Hawaii, Gulf of Alaska, Bering Sea. Most funded.

**RIDGELY WARFIELD.** Modest schedule, all Chesapeake Bay. Current schedule could accommodate additional projects in region throughout the year.

**THOMAS WASHINGTON.** Heavy schedule begins on EPR, then to Hawaiian Islands, California coast, Aleutians, western Pacific, Java Plateau, Lau Basin. Alternate schedules still being considered. About 60% funded.

WECOMA. Heavy schedule starts with VERTEX, then central Pacific and off northwest U.S. coast. About 75% funded.

Following the individual presentations, appropriate small groups of operators convened to address double bookings and refine schedules among ships. (This process was not completed during the meeting, but critical duplications were all identified and will be addressed. See the Chairmen's summary later in this report.)

Summaries of estimated operating costs and days of operation are compared with anticipated agency funding in the following tables. The same costs are shown by individual ship in tables appended to this report.

### PROFILES OF FUNDING CYCLES \$ Million

	OP DAYS	NSF	ONR	OTHER	TOTAL	SHORT FALL
1985	4769	25.9	4.1	5.8	35.8	
1986	4259	25.7	4.4	3.4	33.5	
		1987	Cost Proje	ctions		
March	5792	35.9	4.2	3.1	43.2	
1986 (anticip	ated)	(26.2)	(4.2)	(3.1)	(33.5)	(9.7)
June 1986	5756	35.0	3.6	3.1	41.7	
(anticip	ated)	(25.9)	(3.6)	(3.1)	(32.6)	(9.1)
October 1986	4937	29.8	5.4	3.8	39.0	
(anticip	ated)	(27.7)	(5.4)	(3.8)	(36.9)	(2.1)
July 1987	4843	28.2	5.7	3.6	37.5	
(anticip	ated)	(27.7)	(5.7)	(3.6)	(37.0)	(0.5)

### SUMMARY OF 1988 PROJECTIONS \$ Millions

			Course Course (course)	Costs	
	OP DAYS	NSF	ONR	OTHER	TOTAL
July 1987 J	Projections				
East	3,047	18.72	3.46	1.44	23.63
West	2,493	16.91	1.93	1.42	20.27
Total	5,540	35.63	5.39	2.87	43.90
(Anticipate	ed)	(30.4)	(8.5)	(2.9)	(41.8)
Projected S	Shortfall	(5.2)	3.1		(2.1)

Robert Corell, Assistant Director for Geosciences, National Science Foundation and Marvin Moss, Technical Director, Office of Naval Research, made a joint presentation on ONR-NSF research fleet policy. (Copies of their illustrative slides are appended.) The presentation was of a very positive approach to fleet management. NSF and ONR are the key federal agencies in supporting and managing the academic research fleet. A modern, efficient academic research fleet is essential to national progress in oceanography, especially to emerging global ocean programs. A unified approach to scheduling and support is required.

ONR and NSF are working to establish a framework and guidelines for effective coordination of their research fleet support activities. UNOLS is a keystone to that effective management, and no change in the UNOLS role is anticipated. The agencies will work with UNOLS and standing committees such as the Advisory Council, Scheduling Groups, Fleet Improvement Committee and ALVIN Review Committee on appropriate issues.

The agencies have established working teams, at the Corell-Moss level for policy, Heinrichs-Silva for facilities and Reeve-Hartwig for science issues.

Marvin Moss reported that he has had substantive recent contact with the academic community on fleet management issues. He had been disturbed by the perception that recent steps by ONR were aimed at separating ONR fleet management from NSF's. On the contrary, the Navy's recent actions (AGOR-23 and AGOR-X acquisition, AGOR-14, 15 renovation, an additional \$5 million/year for research vessel operations) are all positive steps to strengthen and improve the U.S. academic research fleet--the UNOLS fleet. The conditions on the use of the \$5 million announced by the Chief of Naval Research (first use on Navy-owned ships, a formula for costsharing with ONR program funds) constitute a mechanism to emphasize ONR program priorities.

Alan Thomas, Deputy Assistant Administrator for Oceanic and Atmospheric Research, National Oceanic and Atmospheric Administration reported on major NOAA ocean research interests and on NOAA fleet allocation for FY-1987 (appended). He emphasized the equatorial Pacific transects for the TOGA Program (OCEANOGRAPHER and RESEARCHER, April-July, 1987) and noted that NOAA interest in WOCE is focusing on climate research, and would likely be mainly in the equatorial Pacific and  $CO_2$  research in the Pacific. NOAA is receptive to researchers who wish to conduct compatible investigations on their ships.

Stuart J. White, NERC, United Kingdom, with Frank Virden, discussed schedules and the scheduling process for the three principal ships under NERC control. CHALLENGER, DISCOVERY and DARWIN. Schedules were provided for April 1988 - March 1989. NERC is particularly interested in their program with NSF to exchange ship time. He noted that they have two scientist slots open on the DARWIN out of Singapore in March 1988, out of Suva in August 1988 and one on the DISCOVERY out of Gibralter in March 1989.

Don Heinrichs, NSF/OCFS reported on their 1987 marine operations budget and outlook for 1988.

	FY 1987	FY 1988	Percent 1988/1987
OSRS (science)	66.4	74.3	11.8%
OFS (facilities)	37.2	43.9	18.0%
ODP (ocean drilling)	30.1	31.3	4.2%
OCE (ocean science)	133.7	149.5	11.8%

In 1987, the Ocean Drilling Program funded about \$1.4 million for ship operations (mostly site surveys by FRED MOORE). About the same is expected in 1988. In 1988, NSF anticipates about \$30 million for ship operations (including ODP and other NSF funds). So far, the NSF submission remains on track in the budget process.

The Ocean Science Division's Long Range Plan, now in its final stages includes increases in facilities support and ship construction. (See budget implications, p. 30 and

Appendix F.) Ship construction in the first period, 1990-1994 would be for two large and one smaller (icestrengthened) vessels. Construction/outfitting costs would total about \$100M, 1989-1994.

NSF is pleased with their ship-time exchange program with other countries. So far, there have been several successful exchanges with the United Kingdom and one with the French. Canada and Australia have also expressed interest.

There is a major problem coming: adequate and appropriate ship-time for WOCE. The problem could begin to manifest itself this fall.

Guidelines for shipboard technician programs are being updated. Peer review will not be required for those proposals wherein management structure remains unchanged and the level is generally constant. Operators should see the new guidelines.

Keith Kaulum, ONR, noted that the earlier presentation by Robert Corell and Marvin Moss, among other things, was evidence of ONR's renewed emphasis on facilities support. One swaying factor has been written communications from the UNOLS community denoting community need for the increased support and constituency interest.

The addition of \$5 million in operational support more than doubles the \$3-4 million that had been provided through ONR's science programs. That \$3-4 million should still be forthcoming, and will be used to match the \$5 million in a 45%-55% ratio. ONR and their facility support managers will try hard to spend the \$5 million, insofar as possible in support of ships in the UNOLS fleet. If Navy-owned ships are appropriately scheduled, the matching funds will be available for NSF and other ships. The matching will also be available to support NORDA, NRL and other Navy programs on UNOLS ships.

The Navy's research ship acquisition program proceeds. The process for selection of an institution to operate AGOR-23 is underway. Responses are due August 31, 1987. A UNOLS representative will be on the selection committee which will be chaired by Eric Hartwig.

A planning meeting on the AGOR-14, 15 renovation project was to be held July 15 and 16.

The AGOR-23 construction program is moving (although the schedule has been stretched). The AGOR-X will be a SWATH. The second one, to be assigned to the UNOLS fleet,

should begin construction in 1990. Preliminary design is about to begin; conceptually, they now visualize ships of about 5,000 tons. For this and other reasons the design may not be suitable for UNOLS R/V use. ONR is asking UNOLS (FIC) for support in negotiating with NAVSEA.

In answer to a question, Keith Kaulum responded that his division had some flexibility in the 55%-45% ship support formula, but would try to be consistent within a year.

George Shor provided a Chairman's summary of results of the meeting:

Total fleet costs would be up about 17% (\$43.9M over \$37.5M), 1988 over 1987. This is for an estimated increase in days' operation of about 15% (5,540 days over 4,843 in 1987). The number of estimated days operation will doubtless decline since some of the science will not be funded.

The projected shortfall for 1988 is about \$2.1 million. This is much less than has been projected on mid-year estimates in any recent year--very encouraging. It reflects increased support from both ONR and NSF. Such a shortfall (about 5% of estimated funding) can be made up by a general refinement of proposals or by the reduction of days operated due to science funding declinations.

The small, manageable shortfall is, however, dependent on using full \$8.5-9.0 million support from ONR (and much less than now projected from NSF).

Based on criteria that an individual ship schedule should total at least 80% of the standard schedule for that class ship and that at this stage perhaps only about 33% of pending funding decisions will be favorable, several ships bear scrutiny:

The CONRAD and the ISELIN both have schedules critically dependent on pending funding decisions.

The FRED MOORE and the GYRE both have weak schedules because of duplicate bookings and because they are largely based on pending funding decisions.

The OSPREY proposes to operate for only a part of 1988. However, that part schedule is centered around a still-unfunded project.

The CAPE HENLOPEN could accommodate additional work during several periods in 1988.

The problems noted have been identified among the concerned operators. They are being addressed through communication and coordination within the appropriate groups and with the P.I.'s concerned.

The Scheduling Groups see no funded science left on the dock.

William Barbee, Executive Secretary, was asked to address some issues on the scheduling process.

In the first year in which early spring scheduling meetings were not held and instead tentative schedules, ship-time requests and summaries of requests were by electronic mail (and mail), the scheduling process worked reasonably well.

However, the input of tentative schedules and summaries of requests was not sufficiently timely or consistent to provide all necessary information to all operators, agency managers and potential investigators. The UNOLS Office did not get all the information in time to prepare and distribute summaries to support the scheduling meeting.

process the scheduling worked consortium NECOR The detailed and meetings NECOR through intensely, problem and Coordination was better communications. identification was more timely there than generally through UNOLS. However, information did not flow effectively to the rest of UNOLS.

On the West Coast, George Shor led an effective coordination effort based on telephone and telemail exchanges. Coordination to find a home for all requests, to avoid duplicate bookings and to arrange efficient schedules was effective. But again, communication to the rest of UNOLS needs to be more consistent and timely.

UNOLS Office efforts to implement a register of ship-time requests for 1988 were not successful. The Office needs to put more effort there. A schedule and format for submitting requests should be developed for all UNOLS operators.

The UNOLS Office should make better presentations of request summaries and tentative schedules. This will require a level of effort and level of support beyond the current ones.

John McMillan, NSF/OCFS, announced that NSF would sponsor a study on insurance costs and coverage for ships in the UNOLS fleet. E.R. Dolly Dieter will conduct the study. Dolly Dieter reported that she will do the work at and from the University of Rhode Island during 1987-1988.

There being no further business, the meeting was adjourned.

1987 ESTIMATES

Date 14 July 1987

		1		1987			
	1986	1986	OPS	NSF	ONR	OTHER	TOTAL
	OP DAYS	COSTS	DAYS	\$K	\$K	\$K	\$K
ATLANTIS II	215	2,921	308	3,164	311	361	3,836
KNORR	161	1,943	150	1,054	828	0	1,882
CONRAD	287	3,255	290	1,977	1,171	200	3,348
OCEANUS	217	1,242	251	1,168	635	7	1,810
ENDEAVOR	235	1,705	219	1,023	637	0	1,660
GYRE	285	1,820	111	355*	344**	381	1,080
ISELIN	177	1,610	188	1,305	126	152	1,583
CAPE HENLOPEN	150	735	137	395	120	170	685
CAPE HATTERAS	225	1,279	157	991	0	State 73 Carry fwd 29	1,093
CAPE FLORIDA (RSMAS part 1986)	33	221	-	-	-	-	-
WARFIELD	125	571	69	409	0	0	409
BLUE FIN	136	175	173	106	0	DOE 95	201
LAURENTIAN	70	194	71	174	0	UM, EPA 32	206
CALANUS	143	316	210	325	16	0	341
MOORE	16	115	270	1,770	0	State 48 USAC 32	1,850
TOTAL	2,475	18,102	2,604	14,216	4,188	1,580	19,984

\*includes 170K 1986 carryover

\*\* lay-up funds

Date 14 July 1987

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		- 1		1	987		
	1986 OP	1986	OPS	NSF	ONR	OTHER	TOTAL
	DAYS	COSTS	DAYS	\$K	\$K	\$K	<u>\$K</u>
MELVILLE	241	2,648	238	2,418	407	UC 38	2,863
WASHINGTON	200	2,333	233	2,153	410	UC 95 SSI 69	2,727
NEW HORIZON	236	1,666	230	1,017	135	DOE 210 UC 357 NASA 14	1,733
ROBT. G. SPROUL	149	587	150	217	43	DOE 23 MMS 119 UC 191	593
VELERO IV/OSPREY	0	350	0	350	0	0	350
POINT SUR	156	846	192	611	28	ST 61 CNOC 366	1,066
CAYUSE LAY-UP 1986	0	119	-	-	-	-	-
WECOMA	0	867	244	1,307	279	0	1,586
THOMPSON	247	2,346	256	2,533	0	0	2,533
BARNES	138	220	139	225	0	20	245
ALPHA HELIX	188	1,330	221	1,302*	0	6	1,308**
MOANA WAVE	261	2,065	336	1,897	243	AID 395 HIG 15	2,550
TOTAL	1,816	15,377	2,239	14,030	1,545	1,979	17,554
East Coast	2,475	18,102	2,604	14,216	4,188	1,580	19,984
FLEET TOTAL	4,291	; 33,479	4,843	28,246	; 5,733	; 3,559	37,538

DATE 14 July, 1987

1988	COST	PROJECTIONS	
1,00	CODT	THOOLOTTOND	

			PROJECTED 1988 COSTS						
	1987 COSTS NSF	1987 COSTS	1987 OP DAYS	1988 OP DAYS	NSF	ONR	OTHER	TOTAL	
ATLANTIS II	3,164	3,836	308	326	3,080	560	360	4,000	
KNORR	1,054	1,882	150	293	3,561	139	0	3,700	
CONRAD	1,977	3,348	290	290	2,606	909	0	3,515	
OCEANUS	1,168	1,810	251	277	1,177	823	0	2,000	
ENDEAVOR	1,023	1,660	219	270	1,208	448	DOE 395	2,051	
GYRE	355	1,080	111	270	1,503	199	213	1,915	
ISELIN	1,305	1,583	188	252	1,775	240	0	2,015	
CAPE HENLOPEN	395	685	137	133	426	109	156	691	
CAPE HATTERAS	991	1,093	157	247	1,384	0	58	- 1,442	
WARFIELD	409	409	69	135	570	9	0	579	
BLUE FIN	106	201	173	173	106	0	DOE 95	201	
LAURENTIAN	174	206	71	60	178	0	45	223	
CALANUS	325	341	210	205	340	27	0	367	
MOORE	1,770	1,850	270	116	808	0	State & Ind. 120	928	
TOTAL	14,216	19,984	2,604	3,047	18,722	3,463	1,442	23,627	

DATE 14 July 1987

1988 COST PROJECTIONS

				PROJECTED 1988 COSTS						
	1987 COSTS NSF	1987 COSTS	1987 OP DAYS	1988 OP DAYS	NSF	ONR	OTHER	TOTAL		
MELVILLE	2,418	2,863	238	281	2,546	557	91	3,194		
WASHINGTON	2,153	2,727	233	339	3,061	754	0	3,815		
NEW HORIZON	1,017	1,733	230	279	1,221	151	UC 453 DOE 180	2,005		
ROBERT G. SPROUL	217	593	150	155	468	46	133	647		
OSPREY	350	350	0	98	988	0	0	988		
POINT SUR	611	1,066	192	183	383	94	State 56 CNOC 483	1,016		
WECOMA	1,307	1,586	244	251	1,300	332	0	1,632		
THOMPSON	2,533	2,533	256	251	2,686	0	0	2,686		
BARNES	225	245	139	140	225	0	20	245		
ALPHA HELIX	1,302	1,308	221	219	1,686	0	8	1,694		
MOANA WAVE	1,897	2,550	336	297	2,348	0	0	2,348		
TOTAL	14,030	17,554	2,239	2,493	16,912	1,934	1,424	20,270 (155		
East Coast	14,216	19,984	2,604	3,047	18,722	3,463	1,442	23,627 (185		
TOTAL	28,246	37,538	4,843	5,540	35,634	5,397	2,866	43,897		

Percent Change (1988/1987)

+14% +26%

-20%

+17%

-6%

%

### BACKGROUND

- THE NATIONAL SCIENCE FOUNDATION AND THE OFFICE OF NAVAL RESEARCH ARE THE KEY FEDERAL AGENCIES SUPPORTING SHIP OPERATIONS, MODERNIZATION OF EXISTING RESEARCH SHIPS, AND NEW SHIP CONSTRUCTION.
- A MODERN, EFFICIENT AND EFFECTIVE ACADEMIC FLEET IS ESSENTIAL FOR PRODUCTIVE FIELD PROGRAMS IN THE OCEAN SCIENCES. BOTH NSF AND ONR MAINTAIN GLOBAL RESEARCH PROGRAMS THAT REQUIRE EXTENDED OPERATIONAL AND SCIENTIFIC CAPABILITIES.
- A UNIFIED APPROACH TO SCHEDULING, OPERATIONS, MAINTENANCE, MODERNIZATION AND REPLACEMENT OF THE ACADEMIC RESEARCH SHIPS IS REQUIRED TO MEET THE EMERGING NATIONAL NEEDS FOR SEA-GOING OCEAN SCIENCE RESEARCH.

## PURPOSE

THE PURPOSE OF THE DISCUSSION IS TO ESTABLISH A FRAMEWORK AND SET OF GUIDELINES FOR THE EFFECTIVE COORDINATION OF THE NSF AND ONR RESEARCH FLEET-SUPPORT ACTIVITIES.

### GOAL

ESTABLISH A SET OF GUIDELINES AND IMPLEMENTATION PROCEDURES. CANDIDATE TOPICS:

- PLANNING AND FUNDING OF RESEARCH VESSEL OPERATIONS INCLUDING SCHEDULING, SCIENTIFIC OUTFITTING, SHORE-BASED SUPPORT AND MARINE TECHNICIAN SERVICES.
- PLANNING AND FUNDING OF RESEARCH VESSEL LAYUPS, IF REQUIRED.
- PLANNING AND ESTABLISHMENT OF OVERALL SIZE OF ACADEMIC RESEARCH FLEET AND ASSIGNMENTS (AND REASSIGNMENTS) OF VESSELS.
- PLANNING AND FUNDING OF CONSTRUCTION, MODIFICATION AND/OR OVERHAUL OF MAJOR RESEARCH VESSELS.
- PLANNING AND FUNDING OF SPECIAL NEEDS IN ACADEMIC RESEARCH FLEET, SUCH AS ARCTIC RESEARCH VESSEL, <u>ALVIN</u>, RESEARCH AIRCRAFT, ETC.

## INITIAL THOUGHTS

- THE "ACADEMIC RESEARCH FLEET" WILL BE DEFINED TO INCLUDE UNOLS AND OTHER VESSELS AS THE SCIENCE REQUIRES. SMALL CRAFT/"MOTOR BOATS" WILL NOT BE INCLUDED IN THIS DEFINITION.
- ONR AND NSF WILL CONTINUE TO DEAL WITH NEW CONSTRUCTION AND CONVERSTIONS JOINTLY FOR OPTIMUM RENEWAL OF THE RESOURCES OF THE ACADEMIC FLEET.
- ONR AND NSF HAVE AGREED TO ARRIVE AT CONSISTENT GUIDELINES FOR DEALING WITH DEADHEAD SHIP TRANSIT TIME COSTS AND ANY LAYUPS.
- <u>ALVIN</u> IS A SUCCESSFUL MODEL FOR MANAGEMENT OF SPECIAL FACILITIES. IT WILL BE USED AS A POINT OF DEPARTURE FOR MANAGEMENT OF ANY OTHER UNIQUE FACILITIES CONSIDERED BY THE AGENCIES.

## BASIC PRECEPTS

- ONR AND NSF ARE COMMITTED TO A JOINT AGENCY AND UNIFIED APPROACH. THIS IS THE CENTRAL POINT OF THESE DISCUSSIONS.
- UNOLS IS A KEYSTONE TO AN EFFECTIVE AND PRODUCTIVE ACADEMIC RESEARCH. NO CHANGE IN UNOLS ROLE IS ANTICIPATED.

WORKING TEAM:

FACILITIES -- HEINRICHS (NSF); SILVA (ONR)

SCIENCE -- REEVE (NSF); HARTWIG (ONR)

\* \* \* \* \* \* \* \* \*

## INITIAL DRAFT:

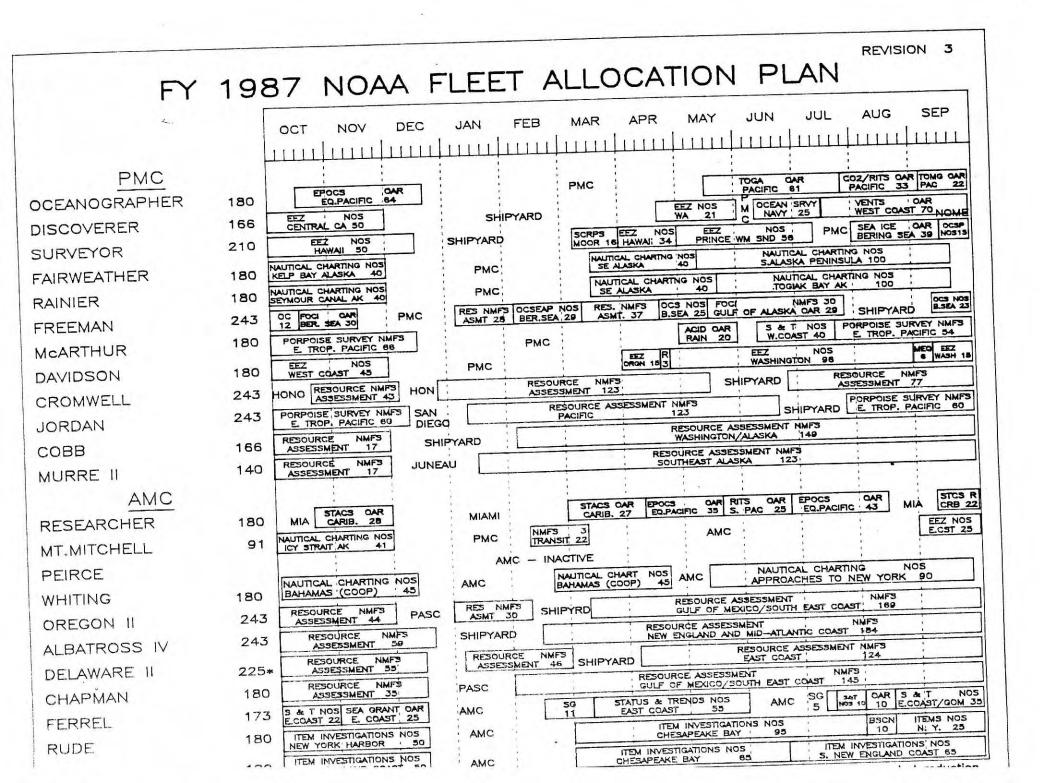
WORKING PAPERS BY 15 AUGUST

## MAJOR NOAA RESEARCH AREAS

- O TOGA/EPOCS
- o Ocean Circulation
  - STACS - Tracers
- o Ocean Chemistry
  - CO<sub>2</sub> RITS

#### Sea Floor Processes 0

- VENT
- Mid-Atlantic Ridge
- o Sea Ice
  - Bering/Beaufort Seas
- Fisheries Oceanography 0
  - FOCI
- Coastal Oceanography 0
  - Sea Grant
  - Status and Trends



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The Advisory Council, in January 1987, noted that the most critical charter modification pending was to revise ANNEX I, A Procedure for Coordinating Ship Schedules. The Executive Secretary was directed to draft a revision. Here it is, together with a copy of the existing ANNEX I.

In the revision (changes in bold), an attempt has been made to describe the way the (idealized) system is organized and works now. At the same time, recent (October 1986) and pending suggestions to centralize and automate ship request files and publication of schedules is accommodated.

I may have gotten carried away with process. In reviewing the draft, you might consider whether or not all the process stuff (mostly 4-7) is appropriate or necessary.

#### ANNEX I TO THE CHARTER

## A Procedure for Coordinating Ship Schedules

- 1. An important facet of the UNOLS' activities is the provision of a mechanism to coordinate the use of available facilities. The coordination of ship schedules is the most obvious area where immediate benefit might be gained. An underlying principle of UNOLS is that control of facility operations and scheduling remain the responsibility of the operating institution, with the understanding that UNOLS and member operating institutions will make efforts to assure that ships and facilities are fully available to all federally-funded users. To assure that ships and facilities are broadly available and that their use is effectively scheduled and coordinated, it is critically important that records of proposed ship use and tentative schedules be broadly disseminated in a timely fashion. It will be a responsibility of the UNOLS Advisory Council to assess and report on the effectiveness of facility utilization.
- 2. East Coast and West Coast Ship Scheduling Groups shall be established in UNOLS. The purpose of the Groups is to serve as a mechanism for the development and coordination of ship schedules in order to assure the most effective, efficient and economic utilization of ships and associated The Ship Scheduling Groups shall have their own terms of facilities. reference. Membership of the East Coast Group shall comprise authorized representatives from each UNOLS institution on the East Coast, Gulf Coast and Great Lakes, and of the West Coast Group authorized representatives from each UNOLS institution on the West Coast, Alaska and Hawaii. Each Group will include a member appointed from the Advisory Council, drawn from the Associate Membership in the respective regions. Representatives of NSF, ONR and other sponsoring agencies shall be included regularly as Eash Ship Scheduling Group shall elect its own Chairman, by observers. and from the members.
- 3. The East and West Coast Ship Scheduling Groups, supported by the UNOLS Office shall pursue an annual process of schedule development. The process will be executed so as to assure effective ship and facility support to federally-funded investigators, efficient and economic operating schedules for individual ships and the UNOLS fleet and to provide timely information for fleet management to funding agencies, UNOLS ship operators and the research vessel user community. Procedures for schedule development will include:
  - collection of ship-time requests at operating institutions at the UNOLS Office or both,
  - exchange of ship-time requests and summaries among all UNOLS institutions and the UNOLS Office,

- development of tentative ship schedules by operating institutions and dissemination among all institutions and the UNOLS Office,
- meetings to consolidate knowledge of science project funding status, to compile institution estimates of operating costs, to coordinate schedules and to make recommendations concerning fleet management.
- 4. Ship-time requests will ordinarily be solicited and collected by individual operating institutions. Institutions encourage submission of ship-time requests as early as practical, hopefully in January or February, although experience is that some requests will not be received until those science proposals meeting June deadlines are submitted. Shiptime requests may also be submitted to the UNOLS Office; these requests will be sent to qualified operating institutions without delay. UNOLS will maintain a central file of ship-time requests for each year, through the UNOLS Office. The file should be interactive, to allow operators, program managers and ship users ease and flexibility of use. Successful implementation of a central ship-time request file requires that all operating institutions submit all of their ship-time requests promptly, that electronic communications be used and that a computer database system be employed. The central file of ship-time requests will be the principal mechanism for the exchange of ship-time requests.
- 5. Tentative schedules will be generated by each UNOLS institution for ships to be operated. Tentative schedules should be generated as soon as operators have a basis in credible ship-time requests (routinely in March, April). Tentative schedules will be exchanged with support from the UNOLS Office among operating institutions, program managers and the user community. The exchange of tentative schedules is to provide information and to prompt negotiations to eliminate double bookings, assure accommodation of all funded science, enhance effectiveness of facility support and to improve the efficiency and economy of the overall fleet schedule. These negotiations are a critical part of the UNOLS scheduling process.
- 6. Joint and separate meetings of the Ship Scheduling Groups will be held as necessary at least annually. Joint meetings are equivalent to UNOLS ship scheduling meetings. The number and dates for meetings may be influenced by institutions' efficiency in developing and exchanging ship-time requests and tentative schedules. Practically, the timing for meetings is dictated by the flow of ship-time requests and of their science funding decisions and by the submission date for Ship Operations Proposals (now (A mid-summer meeting should be scheduled after most ship-October 1). time requests have been compiled, many funding decisions have been announced, tentative schedules have achieved reasonable credibility but still early enough to refine tentative schedules thereby forming a basis for Ship Operations Proposals and for other aspects of fleet management. A fall meeting is necessary to finalize ship operating schedules and to accommodate fleet operating costs to the total funding available and to the needs of sponsored science projects). Additional scheduling meetings as necessary are encouraged among regional groups and consortia of

operators. These regional meetings are to prompt exchange of information on ship-time requests and tentative schedules and to promote negotiation among operators and users.

7. East Coast and West Coast Ship Scheduling Groups, separately and jointly, may make recommendations based on criteria for ship scheduling, the ship needs of sponsored science programs and other aspects of ship management. Recommendations could include the need for additions to or deletions from the UNOLS fleet, temporary periods out of service for individual ships, or modification to schedules for individual ships or groups of ships. Recommendations should be reached through an open process, and transmitted to UNOLS and the Advisory Council. Those bodies should review scheduling recommendations promptly and, as endorsed, transmit them to the funding agencies.

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## A Procedure for Coordinating Ship Schedules

- 1. An important facet of the UNOLS' activities is the provision of a mechanism to coordinate the use of available facilities. The coordination of ship schedules is the most obvious area where immediate benefit might be gained. An underlying principle of UNOLS is that control of facility operations and scheduling remain the responsibility of the operating institution with the understanding that reasonable efforts will be made to provide services to scheduled users. It will be a responsibility of the UNOLS Advisory Council to assess and report on the effectiveness of facility utilization. Within this framework, the following procedures shall apply for the coordination of ship schedules.
- 2. As an initial step each UNOLS institution responsible for the operation of one or more ships will develop a tentative schedule for its ships. This tentative schedule should incorporate as broad an input as possible, both from within and without the operating institution. Further, the schedule at this state must be considered as tentative; it is recognized that factors such as funding, logistics, weather, geography and research programs will provide many constraints. This tentative schedule should be forwarded to the UNOLS Office no later than 1 March. The UNOLS Office will collate the various tentative schedules and distribute these to UNOLS institutions and widely to other interested institutions and scientists having Federally funded oceanographic research programs.
- 3. A scheduled coordination meeting shall be convened each year by the UNOLS Chairman. This meeting shall ordinarily be held in conjunction with the annual UNOLS meeting generally no later than mid-May. The objective of the meeting is to compare the various schedules, to modify them as desirable in order to achieve more effective use of ships and to incorporate as many as possible of the requirements that could not be integrated into earlier schedules. Other scientists, and non-UNOLS institutions who have indicated their requirements for work at sea in the area under discussion may also attend and discuss their interest at the meeting if they so elect.
- 4. Subsequent to the coordination meeting, each UNOLS institution will develop a ship schedule for the following year. (Again, it must be recognized that this schedule will have to be revised continually to accommodate vagaries in ship's operating problems as well as changes in scientific programs. These changes will be the responsibility of the operating institution, but will be made in context with the previously agreed upon schedule.) The schedules should be forwarded to the UNOLS Office by 1 July. The UNOLS Office will furnish funding agencies with copies.

Further, the UNOLS Office will circulate the final schedules to all interested parties. Schedule revisions will be submitted promptly to the UNOLS Office, which will develop an appropriate calendar for ANNEX I - cont.

revision and distribution of fleet schedules based on the advice of the UNOLS Advisory Council, membership and the principal funding agencies.

5. Requests by scientists for use of ships not at their institutions should be via channels established between institutions or scientists for this purpose or by a request to the UNOLS Office which shall transmit the request to appropriate ship operator(s).

Requests for "primary" ship use (i.e., of the chief scientist) should be in the January-February period so as to be included in the procedures outlined in (2) above. Requests for "ancillary" ship use should be made between March-July when the tentative schedules are under examination.

Originally adopted: Amended and readopted: Amended and readopted: Readopted: Readopted:

Sept. 22, 1971, Palisades, NY May 16, 1974, Washington, DC May 13, 1977, Washington, DC Oct. 21, 1981, Washington, DC May 25, 1984, Washington, DC