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## UNIVERSITY - NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

East Coast Ship Scheduling Group  
West Coast Ship Scheduling Group  
Report of Joint Meeting  
June 3, 1986  
Board Room and Conference Room B  
American Institute of Architects  
1735 New York Avenue NW  
Washington, DC

The East and West Regional Ship Scheduling Groups met separately (8:30 a.m.) and jointly (12:40 p.m.) at the American Institute of Architects, Washington, D.C. The separate meetings were chaired by Robertson P. Dinsmore (East) and Brian Lewis (West). They co-chaired the joint meeting, and arrived at recommendations to be made to UNOLS and to the Federal Funding agencies. *Chairmen reminded the Scheduling Groups of the notification by NSF and the UNOLS Advisory Council (ltr. of 10 February 1986, distributed at March meetings) that anticipated funding will not permit full operations in 1987; lay-ups of some ships are inevitable. Recommendations to allow orderly lay-up planning must be ready at the close of these June meetings.* All UNOLS Member Institutions, together with interested Associate Member Institutions, were represented at the separate and joint meetings. Agency recommendations from ONR, MMS and NSF (OCFS, OSRS, ODP, DPP) provided information on science project funding status and funding projections for 1987 ship and facility operations.



## WEST COAST MEETING

*1986 Schedules and Costs.* Schedules and cost information for 1986 were collected but not discussed. WECOMA continues in lay-up status for the entire year. OSPREY will continue in refit status through the end of 1986. (No new problems had arisen since the March 1986 meeting and report.) The 1986 schedule and cost information is summarized below in the table PROFILE OF FUNDING CYCLES, 1986 COST PROJECTIONS, and in the 1986 ESTIMATES (attached).

*1987 Ship Use Requests, Tentative Schedules and Cost Projections.* Summaries of 1987 Ship Use Requests were exchanged among all West Coast Institutions. NSF and ONR representatives provided information on the current status of science funding for projects corresponding to the Ship Use Requests held by the West Coast Institutions.

*Tentative 1987 Schedules were reviewed by individual institutions and ship:*

### *Scripps*

Several alternative schedules were advanced for the MELVILLE. Selection of the appropriate alternative would be made in concert with the selection of options for the MOANA WAVE schedules. (e.g., Riser/Rosby work on one ship, Betzer (project ADIOS) on the other.) MELVILLE'S schedule would be for not more than 90-170 days if Wedell Sea Work or South Atlantic ventilation work are not forthcoming.

The WASHINGTON schedule includes ONR projects, work for U.K. scientists under NSF's cooperative exchange arrangement and then contemplates regional investigation work for ODP. Science funding decisions for the later have not been made. Most of the 1987 season would be in the Western Pacific, and the season would end in the Southwest Pacific.

The NEW HORIZON advances a fairly solid schedule that includes substantial funding from ONR, other Federal agencies (DOE and NASA) CALCOFI and University of California.

The R. G. SPROUL advanced alternative schedules based in large part on science projects for which funding decisions had not yet been made. (Usual situation for schedule based mainly on short-duration regional projects.)

### *University of Hawaii*

Three schedule options were advanced for the MOANA WAVE, based almost entirely on funded science projects. The probable schedule would concentrate on the Eastern Pacific. The match between MOANA WAVE and MELVILLE is still being developed.

### *University of Alaska*

A schedule of about 215 days, mostly for funded science, was advanced for the ALPHA HELIX. If the ISHTAR project is funded for major 1987 ship time, most would go on the THOMPSON.

University of Washington

Of alternatives under consideration, the most likely THOMPSON schedule centers around ISHTAR work in the Bering and Chukchi Seas. THOMPSON schedules are largely predicated on science projects for which funding decisions have not yet been made (e.g., ISHTAR, SUPER, TROPIC HEAT, physical oceanography).

The BARNES would work in Puget Sound on projects for which funding decision have not yet been reached.

Oregon State University

The WECOMA schedule appears solid, based on funded NSF and ONR science projects.

Moss Landing Marine Laboratories

The POINT SUR schedule is based almost entirely on funded science project, roughly half from NSF and half from ONR, CNOC and others.

University of Southern California

A modest schedule was advanced for OSPREY based mainly on funded science projects. Some of the funded projects considered on OSPREY were also considered on other ship schedules.

Summaries of days scheduled and cost estimates are shown below in the table SUMMARY OF 1987 COST PROJECTIONS and in 1987 ESTIMATES (attached).

Information held by institutions together with that provided by agency representatives indicated that of the 2,545 days tentatively scheduled by the West Coast Group, about 65% represented funded science projects:

NSF	1135 days
ONR	212 days
Other	<u>270 days</u>
TOTAL	1617 days

Cost estimates for 1987 were modestly reduced from those made in March, 1987; but the NSF portion was still well above funds anticipated. The sense of the group was that West Coast ships might reasonably expect NSF funds at the same level as provided in 1986 plus about \$1.2M for ODP projects that would likely be conducted on West Coast Ships. In Summary:

	NSF only
West Coast Tentative Schedules (already funded)	1135
Funded in 1986	<u>1478</u>
Additional days anticipated	343
Anticipated through NSF/ODP	<u>120</u>
Additional Days That Can Be Expected	463

Since the tentative schedules submitted by West Coast Institutions included about 2030 days to be funded by NSF, the sense of the Group was that there was a likely problem of about 400 ship days and perhaps \$3-4M shortfall.

The Chairman of the West Coast Ship Scheduling Group suggested and the West Coast Group concurred that three ships, MELVILLE, OSPREY and THOMPSON submitted schedules of such brevity or uncertainty that they must be scrutinized as potentials for lay-up. Further, the sense of the Group was that since science funding decisions had not yet been made for a substantial portion (400-500 days) of 1987 West Coast Ship time, more explicit recommendations on lay-ups should not yet be made.

#### EAST COAST MEETING

*1986 Schedules and Costs.* Schedules and costs for 1986 were quickly reviewed. No outstanding or new problems were reported. The KNORR will enter lay-up status in September through the end of the year. The FRED MOORE will be laid up for most of the second half of the year. Schedule and Cost information is summarized below in PROFILE OF FUNDING CYCLES, 1986 COST PROJECTIONS, and in the 1986 COST ESTIMATES (attached).

*1987 Ship Use Requests, Tentative Schedules and Costs.* Reviews for 1987 occupied the major portion of the meetings. Chairmen reminded the Groups of the notification by NSF and the Advisory Council (Ltr. of 10 Feb. 1986, distributed at the March Meeting) that anticipated 1987 funding will not permit full operations in 1987; that lay-ups of some ships are inevitable; and that recommendations to allow orderly lay-up planning must be ready at the close of the June meeting.

Scheduling reviews proceeded in normal fashion with each representative presenting a summary of proposed 1987 operations and operating data.

Schedule reviews identified several duplications in ship assignments and a list of unscheduled projects was compiled. Most of these, if and when funded, will be able to be accommodated, but several requests, particularly those in the Indian Ocean will, by virtue of ship availability, be deferred.

Regarding these situations, John McMillan (NSF) reported that successful "informed exchanges" of ship time with other nations have been accomplished with France - CNEXO (1985) and U.K. - NERC (1986). This is proving to be a good way of accomplishing distant cruises for which no UNOLS vessel is available, without losing the ship time within UNOLS.

Several 1987 schedules were rearranged between vessels in order to eliminate transits and to provide the most appropriate ship. The extent of funded programs was of special concern. Using information currently available from NSF, about 10% of proposed schedules were noted as declines. For East Coast Ships, 59% of proposed schedule were reported to represent funded science projects. As a result, about 30% of proposed schedules depend on future funding decisions by sponsoring

agencies. The most noteworthy case is the R/V/ KNORR which showed a proposed 336 day schedule of which 214 days is committed to a Black Sea Expedition and associated projects. This is the first of the UNEP declared expeditions and has been two years in planning, but as yet has almost no funded commitments.

Schedule weaknesses were noted for the following East Coast ships:

KNORR (cited above)  
MOORE  
CAPE HENLOPEN  
LAURENTIAN

In the case of the MOORE, CAPE HENLOPEN and LAURENTIAN, these are chronic situations around which the operators have developed operating/lay-up contingencies to insure the continuation of the vessels. The viability of the KNORR schedule depends solely on funding decisions yet to be made for the Black Sea Program.

All intermediate ships (with exception of the MOORE) report relatively strong schedules. The meeting recommended that two Eq. South Atlantic Cruises (ENDEAVOR) be reassigned to CONRAD, and one W. Caribbean Cruise be reassigned to ISELIN. This will reduce unproductive transit time. It was noted that the work proposed for the four East Coast ships (ENDEAVOR, GYRE, ISELIN and OCEANUS) probably could be accomplished by three ships. This was the case on the East coast in 1985 when ISELIN was laid up; and West Coast in 1986 when WECOMA is laid up.

JOINT MEETING

Profiles of statistics through 1986 (based on the attached 1986 ESTIMATES) are summarized below.

PROFILE OF FUNDING CYCLES						
\$Million						
	OP DAYS	NSF	ONR	OTHER	TOTAL	SHORT FALL
1984	4816	23.1	4.0	7.0	34.6	-
1985	4766	25.9	4.1	6.0	36.0	-

1986 COST PROJECTIONS						
	OP DAYS	NSF	ONR	OTHER	TOTAL	SHORT FALL
March 1985	5700	32.0	5.4	3.8	41.2	-
May 1985 (Anticipated)	5757	32.2 (26.0)	5.8 (4.2)	4.8 (3.8)	42.8 (34.6)	- (8.2)
October 1985 (Anticipated)	5310	31.2 (25.5)	4.8 (4.8)	5.8 (5.8)	41.8 (36.1)	- (5.7)
March 1986 (Anticipated)	4502	26.6 (25.0)	5.0 (5.0)	3.3 (3.3)	34.9 (33.3)	- (1.6)
June 1986 (Anticipated)	4370	26.4 (25.0)	4.3 (4.3)	3.3 (3.3)	33.8 (32.6)	- (1.2)

The estimate of 1986 operating days is now 4370, contrasted with the 4502 days reported in March, 1986. Fleet cost projections (\$33.8M) continue to converge with the estimate of funds available. The remaining shortfall is the subject of continuing negotiations between NSF/OCFS and individual UNOLS institutions.

Update schedules for individual ships appear on UNOLS Bulletin Board: SHIP.SCHED86.

1987 Schedules and Costs. Tentative schedules and costs are summarized in the following table.

SUMMARY OF 1987 COST PROJECTIONS  
\$Millions

	OP DAYS	COSTS			TOTAL
		NSF	ONR	OTHER	
JUNE, 1986 PROJECTIONS					
East	3211	18.532	2.469	1.473	22.473
West	2545	16.443	1.081	1.620	19.144
Total	5756	34.975	3.550	3.093	41.617
(Anticipated)		25.9*	3.6	3.1	32.6
Projected Shortfall		9.1	-	-	9.1
MARCH, 1986 PROJECTIONS					
East	3203	18.474	2.927	1.677	23.078
West	2589	17.461	1.270	1.427	20.159
Total	5792	35.935	4.197	3.104	43.237
(Anticipated)		26.2**	4.2	3.1	33.5
Projected Shortfall		9.7	-	-	9.7

\*Funds anticipated (June, 1986) from NSF are estimated on the basis of information provided by NSF officials: OCFS (worst case) \$24.7M, Ocean Drilling Program, \$1.2M.

\*\*Funds anticipated (March, 1986) from NSF included most optimistic OCFS projection: \$26.2M.

The total operating days projected for 1987 is 5,756 days. This is strikingly similar to the '86 projection made this time last year (5,757 days). This is about the full capacity of the fleet but is 32% more than is being carried out in 1986. Total costs of the proposed schedules are about 28% above overall anticipated funding, and project a \$9.1M shortfall.

A subject of concern - almost alarm - is the continuing reduction of seagoing work sponsored by Federal Agencies other than NSF. For 1987, ONR is at its lowest point in recent years. Furthermore, the "other" category bears serious concern. In 1984 and 1985 "other" Agency sponsorship was \$7.0 and \$6.3 respectively. In 1986 it appears to be \$3.6 and for 1987 it is projected to be \$3.1. In particular, USGS and

DOE are greatly diminished. In 1987 the Geological Survey will use no UNOLS ships at all, finding it more economical to use foreign charters. *The future role of "other" Federal agency sponsorship and its potential impact on the UNOLS fleet should be the subject of a study, probably by the Advisory Council.*

*Recommendations.* The Chairmen of the Joint Scheduling Group made the following recommendations:

1. R/V KNORR has a proposed 1987 schedule which depends almost totally on science funding decisions to be made relating to proposed Black Sea Projects. It is unfortunate that these decisions have not been made for an expedition which has been the initial focus of UNEP and several years in the planning. Nevertheless, unless science project funding assures a viable Black Sea and Mediterranean Cruise, KNORR should be considered for lay-up during all or most of 1987.
2. Based on scheduling and funding information available June 3, 1986, three West Coast ships, The MELVILLE, OSPREY and THOMPSON should be scrutinized as potential candidates for lay-up in 1987. More explicit recommendations should await science funding decisions still pending.
3. R/V's ENDEAVOR, GYRE, ISELIN and OCEANUS show proposed schedules which could reasonably be accomplished on three ships operating with one ship laid up for all or part of 1987. Of the 142 cruise days shown by the GYRE schedule, 94 are in the Gulf of Maine. This deployment could be reassigned to other ships, leaving the GYRE schedule sufficiently flexible for consideration of a full or partial lay-up in 1987.
4. The recent and drastic cutbacks by "other" Federal Sponsoring Agencies, particularly by USGS and DOE gives cause for alarm. It is recommended that the work of the UNOLS Advisory Council include a study of the future roles of those Agencies and the potential impact on the UNOLS Fleet.

Captain Thurman K. Treadwell, UNOLS representative from Texas A & M University, took exception to Recommendation #3 above, stating that it did not represent the views or vote of the East Coast Meeting, nor was it discussed. He specifically objected to singling out the GYRE from among the four ships as a candidate for lay-up. The Chairman of the East Coast Scheduling Group agreed that recommendations did not arise from a vote of the Group but were recommendations of the Chairman taking into account information presented at the meetings.



Date 03 June 1986

## 1986 ESTIMATES

	1985 OP DAYS	1985 COSTS	1986					TOTAL \$K
			OPS DAYS	NSF \$K	ONR \$K	OTHER \$K		
MELVILLE	271	2,988	245	2,447	104	DOE 254 UC 23	2,828	
WASHINGTON	241	2,608	199	2,413	0	UC 50	2,462	
NEW HORIZON	195	1,479	239	1,062	158	DOE 158 UC 337	1,716	
ROBT. G. SPROUL	128	562	126	477	35	DOE 31 UC 9	551	
VELERO IV/OSPREY	85	383	0	150	0	0	150	
CAYUSE/POINT SUR 1985 1986	111	450	151	253	78	CNOC 397 OTH 52	780	
WECOMA	213	1,666	0	Caretaker Costs?				
THOMPSON	272	2,594	246	2,192	328	0	2,520	
BARNES	153	206	145	201	0	20	221	
ALPHA HELIX	149	1,528	190	188 DA 1,484	0	2 DA 13	1,292*	
MOANA WAVE	301	2,248	274	1,476	246	321	2,043	
TOTAL	2,119	16,712	1,815	12,155	949	1,665	14,563	

\*Approx. 200k carry forward

Date 03 June 1986

## 1986 ESTIMATES

	1985 OP DAYS	1985 COSTS	1986				TOTAL \$K
			OPS DAYS	NSF \$K	ONR \$K	OTHER \$K	
ATLANTIS II	287	3,226	218	1,798	548	NOAA 370 KAPL 434	3,150
KNORR	185	2,423	159	962	1,105	-	2,067
CONRAD	359	3,372	294	2,758	593	-	3,351
OCEANUS	223	1,515	237	1,019	581	-	1,600
ENDEAVOR	240	1,679	235	1,449	220	NUSC 35	1,705
GYRE	259	1,850	286	1,762	20	STATE 78	1,860
ISELIN	LAI UP 4	616	190	1,507	129	-	1,636
CAPE HENLOPEN	161	764	163	582	83	UNIV 53 INDUST78	796
CAPE HATTERAS	233	1,396	236	1,142	0	MMS 161 STATE 58	1,361
CAPE FLORIDA	218	944	33	214	0	0	*(RSMS Part) 214
WARFIELD	132	506	125	571	-	-	571
BLUE FIN	130	203	136	80	0	DOE 95	175
LAURENTIAN	24	163	70	177	-	17	194
CALANUS	148	222	155	237	43	0	280
MOORE	44	387	18	0	0	STATE 276	276
TOTAL	2,647	19,320	2,555	14,258	3,322	1,655	19,236
WEST COAST	2,119	16,712	1,815	12,155	949	1,665	14,563
FLEET TOTAL	4,766	36,032	4,370	26,413	4,271	3,320	33,799

DATE 03 June 1986

## 1987 ESTIMATES

	1986 COSTS NSF	1986 COSTS	1986 OP DAYS	1987 OP DAYS	PROJECTED 1987 COSTS				TOTAL
					NSF	ONR	OTHER		
MELVILLE	2,447	2,828	245	176	2,024	0	0	2,024	
WASHINGTON	2,413	2,462	199	321	3,200	386	UC 52	3,643	
NEW HORIZON	1,062	1,716	239	270	1,176	127	DOE 187 UC 301 NASA 13	1,804	
ROBERT G. SPROUL	477	551	126	203	598	84	DOE 28 UC 4	714	
OSPREY	150	150	0	148	1,262	0	0	1,262	
POINT SUR	253	780	151	221	578	53	CNOC 428 OTH 123	1,182	
WECOMA	-	-	-	276	1,398	396	0	1,794	
THOMPSON	2,192	2,520	246	240	2,655	0	0	2,655	
BARNES	201	221	145	160	212	0	23	238	
ALPHA HELIX	188 DA 1,484	1,292*	190	213	211 DA 1,398	-	13	1,411	
MOANA WAVE	1,476	2,043	274	317	1,942	35	448	2,425	
TOTAL	12,155	14,563	1,815	2,545	16,443	1,081	1,620	19,144	

\*Approx. 200K carry forward

DATE 03 June 1986

## 1987 COST PROJECTIONS

	PROJECTED 1987 COSTS							
	1986 COSTS NSF	1986 COSTS	1986 OP DAYS	1987 OP DAYS	NSF	ONR	OTHER	TOTAL
ATLANTIS II	1,798	3,150	218	331	3,445	55	-	3,500
KNORR	962	2,067	159	336	3,310	210	-	3,520
CONRAD	2,758	3,351	294	335	2,459	1,061	-	3,520
OCEANUS	1,019	1,600	237	219	1,170	393	-	1,563
ENDEAVOR	1,449	1,705	235	273	1,443	413	DOE 72 NUSC 51	1,979
GYRE	1,762	1,860	286	270	1,770	-	STATE 150	1,920
ISELIN CAPE FLORIDA	1,507 214	1,636 214	190 33	183 CAPE FLORIDA	1,246 TO W. COAST	305	DOE 90 STATE SPRING 86	1,641
CAPE HENLOPEN	582	796	163	132	524	-	INDUST 189	713
CAPE HATTERAS	1,142	1,361	236	250	1,144	-	MMS 120 STATE 60 DOE 126 NIH 48	1,497
WARFIELD	571	571	125	156	593	-	-	593
BLUE FIN	80	175	136	190	100	-	DOE 90	190
LAURENTIAN	177	194	70	149	288	-	NOAA 85	373
CALANUS	237	280	155	256	384	32	-	416
MOORE	0	276	18	131	656	-	INDUS 272 STATE 120	1,048
TOTAL	14,258	19,236	2,555	3,211	18,532	2,469	1,473	22,473
WEST COAST	12,155	14,563	1,815	2,545	16,443	1,081	1,620	19,144
FLEET TOTAL	26,413	33,799	4,370	5,756	34,975	3,550	3,093	41,617