

EAST COAST SHIP SCHEDULING GROUP
WEST COAST SHIP SCHEDULING GROUP
Report of Joint Meeting
October 27, 1988

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



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East and West Regional Ship Scheduling Groups met at 1 p.m. October 27, 1988 in the Board Room, American Institute of Architects, Washington, D.C. The meeting was called and chaired by George Shor, West Coast Scheduling Group. All eighteen operating institutions were represented.

Notification of the meeting, agenda and requests for scheduling, operating and cost information were by UNOLS Office letter dated October 13, 1988 (Appendix I) and a series of telemail requests for costs and schedules addressed to SCHEDULERS.WEST and SCHEDULERS.EAST.GULF. The objectives of the meeting were: to reach firm, effective schedules for 1989, to assure that all funded science was accommodated and to budget total fleet operations within agency estimates of total funds available. Most of the work of verifying science funding for scheduled projects, resolving scheduling conflicts, accommodating the few funded science projects not scheduled and resolving double bookings was completed by telephone/telemail prior to the meeting or in informal session just prior to the regular meeting.

Despite a strong effort to assemble cost and scheduling information prior to the meeting and cooperation from operating institutions, information from some institutions was submitted as late as October 25, and some was revised even during the October 27 meeting. Late submissions were in consequence of generally low funding levels for 1989 and lingering uncertainty concerning the funding status of a few science projects. Uncertainties notwithstanding, information on science project funding status and on funds available for 1989 ship operatives was better organized and more effectively disseminated than in most years.

Summaries by ship of days of operation and projected costs for 1988 and 1989 had been prepared and were distributed at the meeting. The versions herein (Appendix II), dated November 15, reflect changes agreed to at or shortly after the meeting.

Before hearing schedule presentations from individual institutions, Don Heinrichs was introduced to report on recent personnel changes in Ocean Sciences Division, NSF. Don Heinrichs is Director, Ocean Sciences Division (replacing Grant Gross, who is on sabbatical). Don

introduced Bruce Malfait, Acting Head, OCFS; Al Sutherland, Associate Program Director, Ocean Drilling; Larry Clark, Acting Program Manager, Operations (in addition to his regular duties as Program Manager, Oceanographic Technology); Dick West, Program Manager, Oceanographic Facilities and Lisa Lynch, Oceanographic Facilities Specialist working mainly on ship operations. Tom Forham, DPP and Tom Spence, OSRS were also introduced. Don Heinrichs reported that hiring a permanent Program Manager, Ship Operations was in process, with an end-of-year target.

Fleet schedules and costs for 1989. Brief presentations were made by individual institutions. Science funding decisions have been made for all schedules presented here.

Alpha Helix. Scheduled for 186 days, mostly in the Bering Sea. After shipyard inspection and maintenance (January-March) the season is mainly in the Bering Sea (Ice Edge, ISHTAR, marine mammals) together with GARS in Gulf of Alaska. Two DPP funding decisions were still pending. No likely-to-be-funded projects remain unscheduled.

ATLANTIS II. Scheduled for 202 days, beginning with North Atlantic JGOFS sections and buoy deployment (March-June), ALVIN refit trials and certification (July), then ALVIN investigations on MAR and northeast continental margin (August, September). Biannual shipyard overhaul October, November. Minimal ALVIN operations because of very modest request pressure and general science funding strictures.

BARNES. Scheduled for 140 days operation, all in Puget Sound or nearshore Washington, Oregon. Short-duration projects may be fit in as they arise throughout the year.

BLUE FIN. Scheduled to operate primarily as a day boat, off the southeast coast. The 1989 schedule is for 130 days (NSF 75, DOE 55) with the decision still pending on 7 NSF days.

CALANUS. Scheduled for 205 days, January-December, all in Caribbean Islands, Florida Strait and off Jacksonville. Funding not secure for 30 of 116 NSF days.

CAPE HATTERAS. Scheduled for about 190 days, Carolina Shelf to Sargasso Sea and Gulf of Maine. Funded by NSF 95% and state 5%. Open periods January-March and December.

CAPE HENLOPEN. Scheduled for 156 days, in Delaware Bay, off mid-Atlantic coast, Chesapeake Bay and Gulf of Maine. Open period in April. Funding uncertain for 2 projects within NSF's 102 days.

CONRAD. Scheduled for 103 days, in equatorial and north Atlantic, on SEA BEAM, MCS and dredging. Funding 57% NSF, 40% NRL. (CONRAD schedule was abbreviated for April return

to L-DGO for lay-up after preliminary decision to acquire BERNIER.)

ENDEAVOR. Scheduled for 254 days, in western Atlantic, Greenland Sea, near the Azores, equatorial Atlantic and through the northwest Atlantic. Funding NSF 193 days, ONR 40, DOE 21. The very full high-latitude weather window makes schedule timing critical.

GYRE. Scheduled for 121 days, funded by NSF and state. General oceanography in Gulf of Mexico, Caribbean and western Atlantic. Openings throughout year.

ISELIN. Schedule is based on 232 days funded by NSF (180) and ONR (52). Work is in the Caribbean and Sargasso (February-July), project AMASED (July-September) and Caribbean, Sargasso and Gulf of Mexico (September-December).

KNORR. Will be in shipyard renovation at least through September. No science operations scheduled.

LAURENTIAN. Scheduled for 70 days (April-September), funded by NSF (50) and state (20), mostly in Lake Michigan.

MELVILLE. Scheduled for 172 days, January-June, funded by NSF (155), ONR (16) and JOI (1). Work begins in south Atlantic (SAVE) and ends near Bermuda prior to shipyard renovation.

MOANA WAVE. Scheduled for 269 days, all NSF. After maintenance and transit to western Pacific, physical transect at 10N (January-May), Sea Marc in Caribbean (June-August), then in south central Pacific (September-October). Regional work after return to Hawaii.

FRED H. MOORE. Operable but out of service in 1989.

NEW HORIZON. Schedule has been refined to 215 days, NSF 84, ONR 31, NOAA 31, state 69. Work is California-regional except for RUM vehicle work in north central Pacific (May).

OCEANUS. Scheduled for a strong 262-day schedule, beginning in the tropical Atlantic (January-March) northward to north Atlantic and Newfoundland Basin (April-June), Sargasso Sea, regional projects and SYNOP (July-September). After overhaul (September-October) projects near Bermuda and Sargasso Sea (October-November). December open. NSF 221 days, ONR 41 days.

OSPREY. Has funding to finish conversion in 1989. Scheduled 30 days operation/operational shakedown in northeast Pacific.

POINT SUR. Scheduled for 162 funded days: NPS 71 days, NSF 53 days, ONR 17 days, MLML 15 days and MBARI 6 days. General oceanography in California region. Overhaul in July.

ROBERT G. SPROUL. Scheduled for 144 days regional general oceanography. Funding from NSF 86, UC 15, ONR 13 and JPL 10. Open for additional regional projects.

THOMAS G. THOMPSON. Will be retired from the UNOLS fleet in late 1988.

RIDGELY WARFIELD. Scheduled for 135 days, (NSF 134) in Chesapeake Bay and (1 project) New York Harbor. Shipyard in September.

THOMAS WASHINGTON. Scheduled for 248 days, beginning with seismic and Sea Beam surveys in the west equatorial Pacific and central Pacific and general oceanography (January-May). After shipyard overhaul (May-July), geology and geophysics in the eastern equatorial Pacific.

WECOMA. Scheduled for a solid 246 days (NSF 194, ONR 52). General oceanography in northeast Pacific.

Additionally, NSF has indicated that **WEATHERBIRD** will be funded for GOFS/JGOFS station and regional survey work near Bermuda.

Summary of 1989 Fleet Costs and Operations. At the July, 1988 Ship Scheduling Meeting, NSF representatives had indicated that their 1989 ship operations funding would be not more than \$26.8 million (see July 11, 1988 Ship Scheduling Meeting Report). The July, 1988 summary of UNOLS institutions projections for NSF ship operations was \$29.6 million. Projections in October, 1988 (see Appendix II) for NSF projects are \$26.2 million. Further refinement may still be necessary, to accommodate refinements to the NSF appropriation (see below), final 1988 expenditures and NSF's outlook for 1990. ONR/Navy funding in 1989 will be for about 486 days and \$3.7 million. This is an increase of about \$650,000 over July, 1988 projections but still falls short of the \$4.3 million level hoped for in July, of the \$6.5-8.5 million that could be available or of the \$6.0 million the Navy spent for 1988 operations. In discussing ONR funding, institution representatives were concerned that the total was so low (even lower than in recent years prior to the availability of \$5.5 million exclusively for academic fleet operations) and wondered if there was a trend toward an even lower level of ONR ship operation funds. ONR representatives noted only that there were "no more science proposals for 1989" and no unfilled requests for academic ship time.

George Shor discussed cost projections, noting that operators had done well in limiting daily costs, even though many ships will have less-than-full schedules. He pointed out, however, that NSF-funded ship operations were reduced to the \$24-26 million target level mainly because of low science demand: NSF-funded (and required) science days in 1989 are about 3,333, a reduction of about 6% from 1988. Further, projects are being supported on smaller ships than in 1988:

Comparison of NSF Expenditures, 1988-1989

	1988			1989			Percent Change Total Cost
	Days	\$/m	Daily Cost	Days	\$/m	Daily Cost	
Class II	1,630	17.588	10,790	931	12.109	13,006	(31%)
Class III	782	6.283	8,035	999	8.214	8,222	31%
Class IV	624	3.861	6,188	744	4.722	6,347	22%
<Class IV	503	995	1,978	659	1.126	1,709	13%
Totals	3,539	28.727	8,118	3,333	26.171	7,862	9%

Total fleet days and costs were reduced from 4,731 days at \$39.007 million to 4,207 days at \$32.654 million, reductions of 11% of days and 16% of costs.

Almost all of the dollar reductions were within the large ships. Only one of the Class II's, MOANA WAVE, has a full schedule. The THOMPSON is retired from the fleet, MELVILLE, KNORR and CONRAD are out of operation for much (or all) of the year, ATLANTIS II is scheduled well below capacity and WASHINGTON could accommodate additional work.

Schedules for intermediate ships include about 5% more total days, at a cost increase of about 8%.

Small (Class IV) ships have 6% more days at a cost increase of about 8%. Ships smaller than Class IV have 43% more days at a cost increase of 26%.

George Shor noted that, in light of indications that the BERNIER would be acquired in 1989 together with uncertainties in CONRAD's schedule for the last half of 1989, the CONRAD should return to home port in about April, 1989. L-DGO representatives agreed that, with acquisition of BERNIER, CONRAD should be retired early in 1989. Thus, there were no Scheduling Chair's recommended layups.

There were no definitely-funded projects not accommodated within 1989 schedules.

Information from Funding Agencies. Larry Clark presented NSF budget projections for 1989 (see following table):

ESTIMATED SHIP OPS FY1989		
NSF, \$M		
	FY 88	FY 89
OFS, OPS	\$25.8	\$26.5
ODP	+ 1.3	+ 1.5
	-----	-----
	27.1	28.0
89 FUNDS USED IN 88	+ 4.0	- 4.0
	-----	-----
TOTAL AVAIL.	31.1	24.0

PROVIDES DEFICIT CANCELATION

Note that July, 1988 estimates of NSF ship operations funds available in 1989 were about \$26.8 million. (Differences are that in July it was anticipated that only \$3.3 million in 1989 funds would be used for 1988 operations, and in the October, 1988 recapitulation, no 1990 funds are explicitly made available for 1989.)

NSF representatives indicated that the fleet estimate for 1989 ship operations supported by NSF were workable. (Further negotiation can be expected, however.)

Larry Clark alerted ship schedulers that language in NSF's appropriation for 1989 protected ocean sciences (for which there are both advantages and disadvantages) and also prescribed ocean engineering in the Pacific Basin. The NSF/OCE brochure on Current Ocean Science and Technology provides a basis for a Pacific Basin project.

The group was also advised that the National Science Board had approved an award of \$5.4 million over three years to WHOI for an accelerator mass spectrometer center.

Profiles of funding cycles for 1988 and 1989 ship operations costs are Appendix III.

A calendar for scheduling meetings to be held in 1989 was discussed. It was agreed that, given NSF's expected schedule for review panels (only two panels in 1989), scheduling meetings should be held in late June, early July and in the first half of October. (Date for the October meeting should be coordinated with other UNOLS meetings; the June-July meeting is independent. Definite dates will be set

and announced soon. Preliminary regional scheduling meetings are encouraged.

The Ship Scheduling Meeting was adjourned at 4:30 p.m.

UNIVERSITY-NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

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


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To: East Coast Scheduling Group
West Coast Scheduling Group

From: William D. Barbee
Executive Secretary, UNOLS

Subject: Scheduling Meeting, October 27, 1988

October 13, 1988



A meeting of the UNOLS Ship Scheduling Groups has been called:

Board Room
American Institute of Architects
1735 New York Ave. N.W.
Washington, D.C.
October 27, 1988.

The Group meeting will be called at 1 p.m., and is expected to be concluded by 5 p.m. The Board room will, however, be available beginning at 8:30 a.m. for individual or small group meetings to resolve scheduling conflicts, check funding status of individual projects.

The objectives of the meeting are: to reach firm, effective schedules (the schedules to be used for Ship Ops Proposals due November 1), to assure that funded investigators are accommodated, and to match totals of estimated operations costs with agency funding levels. If the fleet schedule or the schedule of individual ships must be significantly adjusted to satisfy operational or funding constraints, the Chairmen will work with the Group to develop recommendations to be presented to UNOLS on October 28.

Materials for meeting:

1. **Ship Schedules for 1988 and 1989.** All institutions should have submitted up-to-date schedules to SCHEDULERS.WEST.EAST.GULF, and they should be on bulletin boards. Bring copies of what you want, for your own use, including vu-graphs for your 89 presentation.
2. **Cost information for 1988 and 1989.** Summaries of 1988 and 1989 costs dated July 29, 1988 are attached to this letter. Up-to-date summaries based on your responses to October 4, 1988 teletext will be furnished at the meeting. Just bring your own cost information, especially if you have not responded to the October 4, 1988 request.
3. **Summary of Unfilled 1989 Ship Time Requests.** There shouldn't be any, but list any valid request that you don't know positively is scheduled. (10 copies please.)
4. **Table and Budgets from 1989 Ship Operations Proposals.** The October 4, 1988 teletext from UNOLS Office requested copies of Table 1C, Ship Time Costs per Project and Section 12, Detailed 4 year Budgets from your 1989 Ship Ops Proposals. If you have not yet furnished these, please bring at least 10 copies.

UNIVERSITY - NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

AGENDA

East and West Coast Ship Scheduling Meeting
Board Room

American Institute of Architects
1735 New York Avenue N.W.
Washington, D.C.

1 p.m.

Thursday, October 27, 1988

The Scheduling Group will be called into session by Chairman Shor and Rawson at 1 p.m. (The Board Room, American Institute of Architects will be available to Ship Schedulers beginning at 8:30 a.m., for those who may need small group meetings to refine schedules, check on science funding decisions, etc.) Emphasis during the afternoon meeting will be on projecting agency funding, matching with cost estimates and refining ship schedules/requirements for 1989.

Fleet Schedules for 1989 - Individual presentations by institution of their operating schedules for 1989. (These schedules should be as furnished to SCHEDULERS.WEST or EAST.GULF, and as you plan for use in Ship Operations Proposals.) Identify schedule problems for individual ships, gaps, long transits, too many/too few days, requests not accommodated, double bookings.

Institution representatives need not bring multiple copies of their schedules (or cost information) so long as they have already responded to October 4 telemail request for information. They may want to bring vu-graphs to help their presentations.

Summary of 1989 Fleet Costs - Chairman Shor, Rawson will present a summary of institution estimates of fleet costs (based on estimates submitted in response to UNOLS Office telemail request of October 4, 1988).

1989 Schedule Refinement - Chairmen Rawson and Shor will moderate discussion and negotiation to improve schedules. Address schedule problems identified earlier, accommodate all users, improve schedule efficiency. Based first on fleet schedule effectiveness, also on cost-funding match, as necessary.

Information from Funding Agency Representatives - From NSF, ONR and others as desired, on funding available for 1989 Ship Operations, funding decisions on individual science projects, overall funding balance and fleet management.

Chairmen's Summary - Characterization of fleet schedule for 1989, to include any schedule refinements necessary to accommodate funded projects, improve effectiveness, meet funding level. The Chairmen will develop with the Group those scheduling recommendations to be presented to UNOLS membership at their October 28 meeting.

Scheduling Meetings in 1989 - Fix the 1989 calendar of scheduling meetings best suited to UNOLS institution needs, science panel schedules and ship ops proposal deadlines.



Year: 1988

PROPOSED FUNDING

SHIP/CLASS

SHIP/CLASS	NSF		ONR		OTHER		TOTAL	
	Days	Dollars	Days	Dollars	Days	Dollars	Days	Dollars
MELVILLE	147	1,798	52	636	10	122	209	2,556
KNORR	279	2,878	23	237	0	0	302	3,115
ATLANTIS II	259	2,885	50	557	37	412	346	3,854
CONRAD	274	3,508	73	935	4	51	351	4,494
T.G. THOMPSON	121	1,546	7	92	0	0	128	1,638
T. WASHINGTON	269	2,673	59	586	3	30	331	3,289
MOANA WAVE	281	2,300	0	0	19	155	300	2,455
CLASS II TOTAL	1,630	17,588	264	3,043	73	770	1,967	21,401
AVE: (7)	233	2,512	38	435	10	110	281	3,057
ENDEAVOR	143	1,200	30	221	49	360	222	1,781
OCEANUS	149	994	85	567	0	0	234	1,561
GYRE	10	60	0	99	124	546	134	705
ISELIN	164	1,408	62	532	1	9	227	1,949
NEW HORIZON	106	774	16	117	98	716	220	1,607
FRED MOORE	32	150	0	0	0	163	32	313
OSPREY	0	200	0	0	0	750	0	950
WECOMA	178	1,497	57	479	0	0	235	1,976
CLASS III TOTAL	782	6,283	250	2,015	272	2,544	1,304	10,842
AVE: (7)	112	898	36	288	39	363	186	1,549
POINT SUR	42	273	84 ^a	546 ^a	15	97	141	916
CAPE HATTERAS	137	900	44	289	21	138	202	1,327
ALPHA HELIX	195	1,436 ^c	0	0	4	29	199	1,465
R. SPROUL	121	476	25	98	15	59	161	633
CAPE HENLOPEN	19	224	0	0	37	437	56	661
R. WARFIELD	110	552	0	0	4	20	114	572
CLASS IV TOTAL	624	3,861	153	933	96	780	873	5,574
AVE: (6)	104	644	26	156	16	130	146	929
BLUE FIN	56	115	0	0	34	70	90	185
LAURENTIAN	40	160	0	0	10	40	50	200
BARNES	49	139	1	1	18	33	68	173
GALANUS	108	261	16	39	5	12	129	312
WEATHERBIRD	250	320	0	0	0	0	250	320
< CLASS IV TOTAL	503	995	17	40	67	155	587	1,190
AVE: (5)	101	199	3	8	13	31	117	238
FLEET TOTAL:	3,539	28,727	684	6,031	508	4,249	4,731	39,007

a. Includes 69 days, \$449K for NPS (CNOC).
b. From 70 July 88 Summary

Year: 1989

November 15, 1988

SHIP/CLASS

PROPOSED FUNDING

SHIP/CLASS	NSF		ONR		OTHER		TOTAL	
	Days	Dollars	Days	Dollars	Days	Dollars	Days	Dollars
MELVILLE	155	1,872	16	193	1	12	172	2,078
KNORR	0	286	0	0	0	0	0	286
ATLANTIS II	184	3,634	3	60	15	296	202	3,990
CONRAD	87	1,067	43	528	3	37	133	1,632
T.C. THOMPSON	0	0	0	0	0	0	0	0 ^b
T. WASHINGTON	236	2,790	10	118	2	24	248	2,932
MOANA WAVE	269	2,460	0	0	0	0	269	2,460
CLASS II TOTAL	931	12,109	72	899	21	369	1,024	13,378
AVE: (5)	186	2,422	14	180	4	74	205	2,676
ENDEAVOR	209	1,621	40	310	21	163	270	2,095
OCEANUS	221	1,778	41	330	0	0	262	2,108
CYRE	81	450	0	0	40	224	121	674
ISELIN	180	1,558	52	450	0	0	232	2,008
NEW HORIZON	84	680	31	251	100	810	215	1,742
FRED MOORE	0	0	0	0	0	0	0	0
OSPREY	30	485	0	0	0	580 ^d	30	1,065
WECOMA	194	1,642	52	440	0	0	246	2,082
CLASS III TOTAL	999	8,214	216	1,781	161	1,777	1,376	11,774
AVE: (7)	143	1,173	31	254	23	254	197	1,682
POINT SUR	53	329	88 ^a	546 ^a	21	130	162	1,004
CAPE HATTERAS	179	1,267	0	0	11	78	190	1,344
ALPHA HELIX	185	1,494	0	0	1	8	186	1,502
R. SPROUL	91	379	25	104	25	104	141	587
CAPE HENLOPEN	102	573	49	275	5	28	156	877
R. WARFIELD	134	680	0	0	1	5	135	685
CLASS IV TOTAL	744	4,722	162	925	64	353	970	5,999
AVE: (6)	124	787	27	154	11	59	162	1,000
BLUE FIN	73	124	0	0	55	93	128	217
LAURENTIAN	50	192	0	0	20	77	70	269
BARNES	170	253	2	2	12	22	184	277
CALANUS	116	237	34	70	55	113	205	420
WEATHERBIRD	250	320	0	0	0	0	250	320 ^c
CLASS IV TOTAL	659	1,126	36	72	142	305	837	1,503
AVE: (5)	132	225	7	14	28	61	167	301
FLEET TOTALS	3,333	26,171	486	3,677	388	2,804	4,207	32,654

a. Includes 71 days/440K NPS (CNOC)

b. TGT out of service in 1989.

PROFILES OF FUNDING CYCLES \$ MILLION
1988 Ship Operations

	OP DAYS	NSF	ONR	OTHER	TOTAL	SHORT FALL.
1986	4,259	25.7	4.4	3.4	33.5	
1987	4,763	28.0	5.7	4.0	37.8	
1988 Cost Projections						
July 1987 (anticipated)	5,540	35.6 (30.4)	5.4 (8.5)	2.9 (2.9)	43.9 (41.4)	(1.6)
October 1987 (anticipated)	5,406	32.3 28.4	5.2 5.2	4.5 4.5	41.9 38.1	(3.8)
January 1988 (anticipated)	5,015	29.1 (28.4)	4.7 (4.7)	4.0 (4.0)	37.9 (36.7)	(1.2)
July 1988 (anticipated)	4,902	29.1 (30.4)	6.1 (6.1)	4.2 (4.2)	39.4 (40.7)	
October 1988 (anticipated)	4,731	28.7 (28.7)	6.0 (6.0)	4.2 (4.2)	39.0 (39.0)	

SHIP OPERATIONS
SUMMARY OF 1989 PROJECTIONS
\$ MILLION

	NSF		ONR		OTHER		TOTAL	
	Days	\$	Days	\$	Days	\$	Days	\$
July 1988 (Anticipated)	3,798	29.55	426	3.44	358	1.90	4,582	34.89
Projected Shortfall		26.8 (2.7)		4.3 0.9		1.9 -		33.4 (1.8)
October 1988 (Anticipated)	3,333	26.17	486	3.68	388	2.80	4,207	32.65
Projected shortfall		24.0-26.0 ?		3.68 (-)		2.80 (-)		32.65 (-)