

Ship Scheduling Review

Room 340
National Science Foundation
Arlington, Virginia
September 20, 2000

Appendices

1. [List of Attendees](#)
2. [Cruise Tracks](#)
3. [Estimate of Costs](#)

The Ship Scheduling Review meeting was called to order at 0830 by UNOLS Scheduling Committee Chair, Joe Ustach. Because there were many unresolved issues remaining, many of the UNOLS ship schedulers were in attendance and Rose Dufour from Scripps was included in the deliberations by telephone. A list of attendees is included as appendix I. Posted schedules or Letters of Intent were reviewed one at a time, starting with small, regional and intermediate class vessels. Class I vessels were handled as a group. Comments regarding each ships proposed schedule follow. This meeting was schedule to last for one half day, however during the morning session, ONR announced some changes to the requested dates for the LWAD programs which impacted several of the large ship schedules. This coupled with other scheduling conflicts, primarily affecting Class I vessels operating in the Pacific, made it necessary to conduct a scheduling session in the afternoon in an attempt to sort through the various options. Several contacts with affected PI's were made, however it soon became clear that more work would be needed to resolve these schedules. For this reason the results of those follow on actions are reported as part of this meeting. The meeting was adjourned at 5 pm.

ALPHA HELIX

Schedule looks good; GLOBEC cruises still in funding flux, as usual; there is the potential of one extra day to the Weingartner cruises.

BLUE HERON

Some question about Kerfoot 6 is it a 7 or 14-day cruise? Cruises should be split between BLUE HERON and LAURENT IAN.

CAPE HENLOPEN

Put OCE numbers on schedule! Double booking of J. Barnhard with CAPE HATTERAS should be decided.

CAPE HATTERAS

Hwang is funded by Navy. Double booking with CAPE HENLOPEN should be decided.

EDWIN LINK

Potential Lay-up; Navy may have some time, however.

ENDEAVOR

Sohn needs to determine if cruises will continue. Balch double booked with OCEANUS, probably will go on ENDEAVOR in November. Balch still needs a summer cruise; on SEWARD JOHNSON? Cabel Davis to go on OCEANUS in September.

OCEANUS

Balch cruise worked out with ENDEAVOR; Balch still needs summer cruise, on SEWARD JOHNSON? McCartney and Plueddemann cruises ok together.

GYRE

LWAD cruise may go later in year and for more days 6 14 Feb to 10 March with transits and mobilizations. Santchi cruise is funded (OCE 9906823). Need to identify AUV cruise in April. May be double booked with one on NEW HORIZON. If so, cruise will go on NEW HORIZON.

NEW HORIZON

Bishop is NOPP instead of Navy; put NOPP 99 in proposal number slot. Last NAVO cruise should be Phys. Ocean. instead of SCORE; can move to Jan 02 if need be. Rudnick cruise needs to be synchronized with Fairall cruise on BROWN. Childress cruise needs to be synchronized with ATLANTIS.

LONGHORN

NAVO cruise ok.

POINT SUR

Schedule ok.

SEA DIVER

Phinney and Miller funded.

SEWARD JOHNSON

Joe Pawlik not scheduled; perhaps on WALTON SMITH? Needs 14-16 days in May, June, July and room for 25 in science party. Can fit Balch in sometime between 26 Feb and 16 April. Find out if timing is ok or too early. Need to check on Williams NOPP to see if he should be going to sea.

SPROUL

Is Pineda one or more cruises? Can SPROUL be used to help unsnarl the Pacific tangle?

BARNES

MacCready won't go in 2001; if funded will go in 2002, at the earliest. Devol still pending, proposal number is OPP 0085162.

BLUE FIN

Jahnke, Paffenhofer, and Hollibaugh all funded.

PELICAN

Walsh and Paul cruises go on WALTON SMITH. Ruttenberg needs to be considered. Powell NSF number should be OCE 0000351. Rabelais still may have fewer days. Hwang cruise should be checked into.

LAURENTIAN

Potentially weak schedule ó maybe less than 50 days. Cuhel still pending. Moore cruise may not be compatible with ship. Eadie has only 24 days. Kerfoot should be scheduled for 7 or 14 days ó see BLUE HERON comments.

URRACA

Need to submit a schedule! Need to participate in scheduling process ó at least electronically. Fourteen NSF days.

WALTON SMITH

Paul Grant number is OCE 9811319. The NAVO cruise should be Mayport instead Of Florida Straits. Some NAVO scheduling problems need to be straightened out.

ATLANTIS

Transit times for Smith and LWAD cruises may be shortened. NSF may need an additional 15 dives for Lutz in Bermuda. Engineering dives may only be one day for each agency. Can NAVO Hawaii cruise fit in here?

EWING

Fisher cruise ok on EWING if equipment problems can be worked out. Gaherty has instrumentation problems and may have to go later in year. Might affect Fisher cruise. Johns prefers later date; may not be practical.

BROWN

Fairall cruise needs coordination with Rudnick on NEW HORIZON. Depending on funding, more ship days may happen in July ó August time.

KOK

166 days scheduled - mostly NSF/NOAA time HOTS. Malahoff, NSF cruise not scheduled ó up to 10 days ship time.

KNORR

Simard schedule ok. NAVO looking at gravity survey off Puerto Rico after Simard; may take priority over Hawaii multi-beam.

Others ó No closure done on big ships in Pacific. Alternative schedules being worked on to see what gets left off. At end of the meeting the tangle included:

ROV Problems: Coffin has no vehicle and no ship as yet. Johnson will get heat transfer cruise done. For his LEXEN initiative there were three possibilities: 1.) Postpone until 2002; 2.) Go immediately after heat transfer dive; 3.) Go in September if a vehicle can be found that is available.

Honolulu Problems: Chave cruise is hanging. May be able to go on WECOMA after Anderson, but Chave is balking at this option because of vessel capabilities. Sansone cruise has to go in June/July; is also left hanging. NAVO wants a ship near Honolulu for up to 45 days (but see comments at KNORR). Can be done in one, two, or three separate cruises, but prefer one cruise. Will attempt to find an alternative schedule that can allow Chave, Sansone, Coffin, and NAVO(?) to go in summer in Honolulu. Coffin also needs an ROV ó see above.

WECOMA, THOMPSON, REVELLE Problems: Wheeler and Barth cruises must coincide. They can miss each other by 4-5 days at most. Wheeler's earliest time is a mid-May start and second cruise has to end in August. Whichever ship Wheeler's first cruise has, must be used for her second cruise.

LWAD Problems:

LWAD 01 Gulf of Mexico ó All is ok

LWAD 02 Far East ó missing one large ship

LWAD 03 Southern California ó missing one large ship.

POST-MEETING SCHEDULING PROCESS

Due to the number of outstanding issues, in particular with large ship in the Pacific, a number of conference calls and email correspondence took

place to arrive at the best possible solutions. The following is a summary of the outcome of the follow on deliberations.

Here is a summary of the results of the conference calls and work on the 2001 Schedules in the Pacific for REVELLE, MELVILLE, THOMPSON, EWING, ATLANTIS, WECOMA and KOK:

1. The schedules that are being proposed as the "final solution" are theThompson_2 LOI, Revelle_3 (email format only from Rose Dufour Monday, October 2, 2000 1:07 PM) and Melville's posted schedule all dated Oct. 2, 2000. They are included at the bottom of this message.
2. There is no set of solutions that we have been able to develop that do not leave some work on the beach altogether or defers work to 2002.
3. Some of the work being scheduled in 2001 has already been deferred from 2000 or earlier. These are the cruises for Becker, Chadwell, Silver, Van Dover, Fryer and Levin.
4. Some of the work being scheduled in 2001 are follow on cruises to work already started where deployed equipment could not be recovered or time series values would be disrupted. These include: Levin, Johnson, Home Projects, Spiess and ASIA-Ex.
5. For many of the cruises being scheduled there have been serious constraints due to the availability of ROV's, weather windows, coastal processes, multiple ship operations and coordination with larger operations or exercises.
6. ROV availability and shipping time requirements result in the ROV JASON being scheduled for Van Dover, Johnson, Silver and Schouten. JASON is not available for Levin, who will use a smaller leased vehicle; Coffin, who is pursuing other options, and Johnson's Lexen Cruise which is being deferred to 2002.
7. Solutions using the R/V RONALD BROWN have not been possible at this point in time due to the uncertainty of their funding status and the level of support needed for the NOAA work. BROWN would not be available for LWAD- 02 due to conflict with other work.
8. Fisher will be scheduled on EWING in order to free up time on REVELLE schedule. This should be acceptable to the PI.
9. The following cruises are not scheduled, are deferred or in less than desired time slots under this proposed set of schedules.
 - a. Hildebrand is being deferred until 2002 due to the inability to have a ship in Hawaii at the right time for a long enough period. PI is aware of this and although not particularly happy about it, has accepted it. This is supposed to be an annual measurement. SIO needs to send note to NSF ship ops program manager or PI needs to inform his program manager.
 - b. Worcester/Chave - First Deployment cruise not in optimal window, they are at the earliest possible weather window for deployments in order to utilize available ship (REVELLE) and still get their gear in the water before the rest of the HOME project cruises later in the year. Chave cannot go much earlier due to availability of equipment.
 - c. Chadwell- already delayed two years and scheduled later than desired in 2001 due to need for specific ship in a location off South America.
 - d. Becker- already delayed two years and later in 2001 due to specific ship/equipment needs in remote area.
 - e. Lisa Levin - already delayed six months later and required to complete second cruise in a different year using a different ROV than originally requested due to conflicts in ROV schedule.
 - f. Rick Coffin - Not scheduled with either a ship or ROV due to conflicts with other projects for use of ROV (Johnson and Silver) and Ship (LWAD and COAST). PI and Program manager are aware and looking for alternatives.
 - g. Paul Johnson (LEXEN) This cruise is deferred until 2002 due to conflicts with ROV schedule and COAST project. PI is aware of this and it is acceptable to him.
 - h. LWAD - 02 (Japan) - Only one of the two ships requested is provided (MELVILLE). The change to later dates creates a hole in the MELVILLE schedule between ASIA-EX and LWAD up to a month long, depending on how much time ASIA EX actually uses. This hole is not long enough to pick-up any work in Hawaii or the South Pacific. These LWAD dates also mean that MELVILLE cannot get to Hawaii in time to carry out the Worcester mooring turn-around cruise before Flip gets underway for HOME project. The second possible ship for LWAD-02 is the THOMPSON, however having THOMPSON steam to Japan for LWAD would adversely impact the NSF COAST project in the Pacific Northwest and would not allow the THOMPSON to conduct the Worcester turnaround cruise for HOME. The COAST project is a two-ship operation that must be coordinated with WECOMA and must include two separate field expeditions that fall within a fairly narrow upwelling season, all within the same year. Failing to do part of this project would put at risk the entire project, which would affect four cruises on WECOMA (Barth & Levine) and two cruises on THOMPSON (Wheeler). Providing THOMPSON for LWAD - 02 would require that they make a deadhead transit from Seattle to Japan and then back again for the two-week LWAD project. REVELLE is not available at the requested time because they are deployed to South America to conduct cruises that have already been deferred for one or more years. For these reasons we are proposing to only provide one UNOLS ship for LWAD - 02 (MELVILLE).
 - i. LWAD - 03 (Southern California) - One large ship (THOMPSON) and one intermediate (WECOMA) are scheduled for this cruise. REVELLE and MELVILLE are deployed to the South Pacific for long standing cruises. Three ships had been tentatively scheduled for this exercise prior to the change of dates to November. One of the requested large ships cannot be provided without completely changing plans for REVELLE and MELVILLE that extend into 2002.
 - j. Voight and Garcia requests for Alvin and/or ROV are deferred because ATLANTIS will not go to the Pacific Northwest or Hawaii in 2001. ATLANTIS/ALVIN have a shorter operating year than normal due to ALVIN overhaul.
 - k. A very late request from Weingart at JHU/APL for a large, acoustically quiet vessel in the summer of 2001 in the Pacific Northwest is not scheduled due to conflicts with previously scheduled or requested work.
 - l. Sansone will be scheduled on KOK, which is acceptable to the PI in order to get the proper time frame, which is critical.

RESULTING SCHEDULES:

REVELLE:

POC: Rose Dufour/Elizabeth Brenner LAST UPDATED: 29 September 2000
 SIO Ship Schedulers
 Scripps Institution of Oceanography
 University of California, San Diego
 9500 Gilman Drive
 La Jolla, CA 92093-0210
 Tel: 858-534-2841
 Fax: 858-535-1817
 Email: shipsked@ucsd.edu

R/V Roger_Revelle 2001

CRUISE DATES	MAP INDEX/AREA/ PURPOSE	P. I./INSTITUTION/ PROPOSAL NO.	PORTS	DAYS/AGENCY/ STATUS/ CLEARANCE
30 JAN 02 FEB	NP13/Southern Pacific/ Multibeam testing	deMoustier, C./ SIO/General Funds	San Diego San Diego	4/STATE/F
17 FEB 24 FEB	SP3A/Southern E. Pacific/transit NP12/to Hawaii/ transit	transit/na/ na Taylor/NAVO/ na	San Diego Hilo	3/NSF/P 5/NAVY/F
25 FEB 25 Mar 26	NP12/Off Hilo/ bathymetry survey	Taylor, P./NAVO/ N00 Honolulu	Hilo	30/NAVY/F
27 28 Mar 10 APR 11	NP12/Off Hawaii/ HOME	Chave, A./WHOI/ OCE98-20759	Honolulu Honolulu	16/NSF/F
12,13 14 APR 27 Apr 28	NP12/off Hawaii/ deployment	Worcester/SIO/ na	Honolulu Honolulu	17/NSF/F
29 Apr 07 May	SP3A/transit/	transit/na/ OCE	Honolulu San Diego	9/NSF/F
10 May 16 May	NP9/Off San Diego/ ATV testing/	Spiess F./SIO	San Diego San Diego	7/STATE/P
18 May 06 Jun	NP9/44 N 130W/ Marine Geophysics	Spiess F./SIO/ OCE99-07247	San Diego San Diego	20/NSF/F
10 JUN 21 JUL 22,23	NP13/8.5N 105-85W/ SeaSoar	Kennan, S./NOVA/ OCE	San Diego Pto. Calder Costa Rica	44/NSF/F
24 Jul 13 Aug 14	NP13/Eastern Pacific 1 N 84/Borehole Instrum.	Becker K./RSMAS/ OCE98-19316	Pto. Caldera Guayaquil	22/NSF/F
15,16 17 Aug 19 Aug	SP3A/transit/ personnel transfer	Kurz, M./WHOI/ OCE00-02461	Guayaquil Pto. Ayora	05/NSF/P Ecuador
20 Aug 15 Sep	NP13/Galapagos Hotspot/towed camera	Kurz M./WHOI/ OCE00-02461	Pto. Ayora Pto. Ayora	27/NSF/F Ecuador
16 Sep 20 Sep 21,22 23,24	NP9/Transit/	Kurz, M./WHOI/ OCE00-02461	Pto. Ayora Guayaquil or Guayquil	05/NSF/P
25 Sep 31 OCT 1,2 3,4,5	SP3A/Nazca S.A. Plate/ Marine Geophysics	Chadwell, D./SIO/ OCE98-20026	Guayaquil Valparaiso	40/NSF/F Peru
06 NOV 13 DEC 14	SP3A/Off Chile - 18-2/ gravity, mags. dredging	Naar, D./USF/ OCE00-02313	Valparaiso Easter Island	42/NSF/F Chile
15 DEC 30 DEC	SA3/transit/ transit	Coale, K./MLML/ OCE	Easter Island Lyttleton	15/NSF/P Chile, New Zealand

(Cross date line, lose a day)

Agency	Funded	Proposed	TOTAL
NAVY	35	0	35
NSF	237	28	265
STATE	4	7	11
TOTAL	276	35	311

MELVILLE:

POC: Rose Dufour/Elizabeth Brenner LAST UPDATED: 2 October 2000
 SIO Ship Schedulers
 Scripps Institution of Oceanography
 University of California, San Diego
 9500 Gilman Drive
 La Jolla, CA 92093-0210
 Tel: 858-534-2841
 Fax: 858-535-1817
 Email: shipsked@ucsd.edu

R/V Melville 2001

CRUISE DATES	MAP INDEX/AREA/PURPOSE	P.I./INSTITUTION/PROPOSAL NO.	PORTS	DAYS/AGENCY/STATUS/CLEARANCE
25,26				
27 DEC	SP2/Tonga Trench/	Yayanos, A./SIO/	Apia	26/NSF/F
25 JAN	LEXEN	OCE99-07651	Noumea	
26,27	[Cross date-line loss]			
	to Thompson			
?? JAN	NP12/Off Hawaii/	Worcester, P./SIO/	Honolulu	0/NSF/F
?? ???	HOME Fairfled	OCE98-19525	Honolulu	
28 JAN	SP1//	n.a./n.a./	Noumea	10/NSF/P
06 FEB	transit to Guam	n.a.	Guam	
7,8,9				
10 FEB	NP10/Mariana Forearch/	Fryer, P./SOEST/	Guam	23/NSF/F
01 MAR	Hawaii MR1, dredging	OCE99-07063	Guam	
2,3				
04 MAR	NP10//	Bloomer S./OSU/	Guam	39/NSF/F
12 APR	Hawaii MR-1,dredging	OCE001876	Guam	
	/Mariana forear/	Fryer, P./SOEST/		5/NSF/F
	Hawaii MR-1	OCE99-07063		
13,14				
15 APR	/transit/	transit//	Guam	6/NAVY/F
20 APR			Naha	
20,21,22,23,24,25				
26 APR	NP7/East China Sea/	Dahl, P/APL-UW/	Naha	29/NAVY/F
27 MAY	ASIAEX	N0000-xxxxxxx	Naha	PRC,
28,29				Taiwan,
				Japan,
				Korea
30 MAY	NP7/East Sea/	Watts, R./URI/	Naha	3/NAVY/F
01 JUN	transit	N00014-98-1-0200	Pusan	
2				
03 JUN	NP7/East Sea/	Watts, R./URI/	Pusan	16/NAVY/F
17 JUN	Mooring Recovery	N00014-98-1-0200	Pusan	
18 JUN	/LWAD 01-2/	Burdette, J./Naval	Pusan	3/NAVY/F
20 JUN	transit	Air Warfare/N.A.	Naha	
21 JUN	/Off Korea & Japan/	Burdette, J./Naval	Naha	0/NAVY/P
14 JUL	non-op	Air Warfare/N.A.	Naha	
15,16				
17 JUL	/Off Korea & Japan/	Burdette, J./Naval	Naha	23/NAVY/F
05 AUG	LWAD 01-2	Air Warfare/N.A.	Naha	
6				
07 AUG	NP12//	transit//	Naha	10/NAVY/P
16 AUG			Lae	
17,18				
19 AUG	SP1/Papua New Guinea/	Silver/UCSC/	Lae	40/NSF/F
23 SEP	ROV Jason & AMS120	OCE99-07153	Lae	Papua New
24,25				Guinea

26 SEP IN5/from Lae to transit/n.a./ Lae 14/NSF/P
 07 OCT Honolulu/transit n.a. Papeete
 [cross date line gain a day]

8,9,10
 11 OCT SP3/16S-11S, 113-120W/ Forsyth D./Brown/ Papeete 55/NSF/F
 30 NOV multibeam, airgun, dre OCE99-11729 Easter Island
 1

14
 ?? ??? NP12/Off Hawaii/ Taylor, P./NAVO/ Honolulu 0/NAVY/F
 ?? ??? bathymetry n.a. Honolu

Agency	Funded	Proposed	TOTAL
NAVY	80	10	90
NSF	188	24	212
TOTAL	268	34	302

THOMPSON:

----- Forwarded message -----
 Date: Mon, 2 Oct 2000 16:50:36 -0400 (EDT)
 From: unols@gso.unl.gso.uri.edu
 To: edietter@nsf.gov, schwartz@ocean.washington.edu
 Subject: Thomas_G_Thompson_2 2001 Letter Of Intent

POC: Daniel S. Schwartz LAST UPDATED: 2 October 2000
 Manager of Marine Operations
 University of Washington
 School of Oceanography
 Box 357940
 Seattle, WA 98195-7940
 Tel: 206-543-5062
 Fax: 206-543-6073
 Email: schwartz@ocean.washington.edu

Letter Of Intent
 R/V Thomas_G_Thompson_2 2001

CRUISE DATES	MAP INDEX/AREA/ PURPOSE	P.I./INSTITUTION/ PROPOSAL NO.	PORTS	DAYS/AGENCY/ STATUS/ CLEARANCE
01 JAN	NP9/Shipyard Seattle/	Schwartz,D/UW/	Seattle	/Other/
15 JAN	Complete installation	n/a	Seattle	
23 JAN	NP9/Puget Sound/	McDuff,R/UW/	Seattle	4/STATE/F
26 JAN	Student Instruction	n/a	Seattle	
08 FEB	NP9//	Constable,S/SIO/	Seattle	4/NSF/F
11 FEB	Geophysics/transit	OCE-0002381	San Diego	
2				
14 FEB	NP9/California Coast/	Constable,S/SIO/	San Diego	23/NSF/F
05 MAR	Geophysics/transit	OCE-0002381	San Diego	
1				
Twenty science days, two mobilization days, and one de-mobilization day.				
07 MAR	NP9//	Constable,S/SIO/	San Diego	4/NSF/F
10 MAR	return transit	OCE-0002381	Seattle	
21 MAR	NP9/Wash./Ore. Coast/	Moum,J/OSU/	Seattle	8/NSF/F
28 MAR	Coastal Ocean Shelf Tr	OCE-9907854	Seattle	
COOP Instrumentation.				
02 APR	NP9/Puget Sound/	McDuff,R/UW/	Seattle	12/STATE/F
13 APR	Student Instruction	n/a	Seattle	
14 APR	NP9/Juan de Fuca/	Johnson,P/UW/	Seattle	3/NSF/F
16 APR	LEXEN-seamounts	OCE-0085615	Seattle	
Equipment trials in Puget Sound, for subsequent expedition to Juan de Fuca.				

21 APR	NP9/Calif. Coast/	Levin,L/SIO/	Seattle	12/NOAA/F
02 MAY	JASON ROV-methane seep	UAF(CA)-99-15	Seattle	
Allow four days at homeport to mobilize ROV, before trip.				

14 MAY	NP9/Oregon/Wash.	Wheeler,P/OSU/	Seattle	23/NSF/F
05 JUN	Coast/COAST	OCE-9907854	Seattle	
21 days of science operations with a day to/from station at each end. This is the first of two cruises, the dates for which have been approved by the PIs (in an e-mail of 9/25)--held in conjunction with Wecoma cruises.				

08 JUN	NP9/Puget Sound/	McDuff,R/UW/	Seattle	4/STATE/F
11 JUN	Student Instruction	n/a	Seattle	
17 JUN	NP9/Juan de Fuca/	Johnson,P/UW/	Seattle	17/NSF/F
03 JUL	hydrothermal system th	OCE-9907212	Seattle	Canada
ROV Jason--allow 4 days to re-mobe ROV before cruise. This is a continuation of work performed in CY-2000.				

07 JUL	NP9/Puget Sound/	McDuff,R/UW/	Seattle	21/STATE/F
27 JUL	Student Instruction	n/a	Seattle	
04 AUG	NP9/Oregon/Wash.	Wheeler,P/OSU/	Seattle	23/NSF/F
26 AUG	Coast/COAST	OCE-9907854	Seattle	
21 days of science operations with a day to/from station at each end. This is the second of two cruises, the dates for which have been approved by the PIs (in an e-mail of 9/25)--held in conjunction with Wecoma cruises. If Thompson performs this cruise, she will be unavailable for the Japan LWAD exercise.				

29 AUG	NP9/North Pacific/	Worcester,P/SIO/	Seattle	8/NSF/F
05 SEP	Transit to Hawaii/HOME	OCE-9819525	Honolulu	
1				
07 SEP	NP9/North Pacific/	Worcester,P/SIO/	Honolulu	13/NSF/F
18 SEP	HOME/Farfield: recover	OCE-9819525	Honolulu	
Recovery of moorings installed by another vessel north of the Hawaiian chain. One day of mobilization at Honolulu.				

19 SEP	NP9/North Pacific/	Worcester,P/SIO/	Honolulu	4/NSF/F
22 SEP	HOME/Farfield: turnaro	OCE-9819525	Honolulu	
23 SEP	NP9/North Pacific/	Worcester,P/SIO/	Honolulu	15/NSF/F
05 OCT	HOME/Farfield: re-depl	OCE-9819525	Honolulu	
2				
Re-deployment of moorings south of Hawaiian chain. Two de-mobilization/provisioning days at end of cruise, before return transit.				

08 OCT	NP9/North Pacific/	Worcester,P/SIO/	Honolulu	8/NSF/F
15 OCT	HOME/Farfield: return	OCE-9819525	Seattle	
18 OCT	NP9/Cascadia Basin/	Emerson,S/UW/	Seattle	12/NSF/F
28 OCT	Geochem Redox-sensitiv	OCE-9911103	San Diego	
1				
Cores & pore water analysis. Ten days of science and one day for transit to first station, and one-day de-mobilization at San Diego. Cruise will begin at Seattle and end at San Diego, positioning ship for following LWAD mobilization.				

30 OCT	NP9/Southern California/	Burdette,J/NAWCAD/	San Diego	20/NAVY/F
18 NOV	Southern California LW	n/a	San Diego	
Includes mobilization and de-mobilization days at San Diego.				

21 NOV	NP9/Pacific Coast/	Clark,D/NASA/	San Diego	28/NASA/F
16 DEC	EOS MRIS Initialization	unknown	Seattle	Mexico
This cruise was originally scheduled for CY-2000. Some funding has been reserved this year and remainder to be acquired next year, when the cruise will actually be run. Request changed to Nov. 2001 by PI on 8/14/00. Two days mobilization allowed for at beginning of trip. Science Ops/Transect will be from San Diego, down to Baja then up to Seattle.				

20 DEC	NP9/Puget Sound/	McDuff,R/UW/	Seattle	4/STATE/F
23 DEC	Student Instruction	n/a	Seattle	

 NOAA
 NSF

 TOTAL

 17
 143

 160

 0
 0

 0

 17
 143

 160

List of Attendees

NAME	INST/ORG.	PHONE	FAX	E-MAIL
Alberts, Jon	WHOI	(508) 289-2277	(508) 457-2185	jalberts@whoi.edu
Askew, Tim	HBOI	(561) 465-2400 X262	(561) 465-2116	taskew@hboi.edu
Diebold, John	LDEO	(845) 365-8367	(845) 359-6817	marscico@ldeo.columbia.edu
Gardner, Joan	NRL	(202) 404-1094	(202) 767-0167	gardner@gur.nrl.navy.mil
Knox, Robert	UNOLS	(858) 534-4729	(858) 535-1817	rknox@ucsd.edu
Osgood, Kenric	NOAA	(301) 713-3338X135	(301) 713-4044	Kenric.Osgood@noaa.gov
Pfeiffer, Tim	ONR	(703) 696-6999		Timothy_Pfeiffer@onr.navy.mil
Prince, Mike	UNOLS	(831) 632-4410	(831) 632-4413	office@unols.org
Rabalais, Steve	LUMCON	(504) 851-2808	(504) 851-2863	srabalais@lumcon.edu
Rossmann, Fred	NOAA	(301) 713-2465 X184		Frederick.w.Rossmann@noaa.gov
Schwartz, Dan	UNOLS/UW	(206) 543-5062	(206) 543-6073	schwartz@ocean.washington.edu
Taylor, Paul	NAVO	(228) 688-5843	(228) 688-5602	taylorp@navo.navy.mil
Ustach, Joe	UNOLS	(252) 504-7579	(252) 504-7651	joeu@duke.edu
White, Douglas	UDEL	(302) 645-4225	(302) 645-4007	dw@udel.edu
White, Elizabeth	NOAA	(301) 713-3435X135	(301) 713-1541	Elizabeth.white@noaa.gov
Wilkes, Gordon	NAVO	(228) 688-4376	(228) 688-4639	wilkesg@navo.navy.mil
Epp, David	NSF			Depp@nsf.gov
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Cruise Tracks

ALPHA HELIX
 ATLANTIS
 CAPE HATTERAS
 EWING
 KNORR
 MELVILLE
 OCEANUS
 REVELLE
 WECOMA

Estimated Costs for 2001

2001 Total Costs

This is an estimate of total costs for the UNOLS fleet based on Ship Operations and Technician costs.

Sum of Operating Days & Ship Costs	Grant Agency								TOTAL		Daily Rates		
	Ship	NAVY		NOAA		NSF		OTHER			Ship	Tech	Total
Alpha_Helix	0	\$ -	108	\$ 1,104,732	53	\$ 483,678	27	\$ 276,183	188	\$ 1,923,052	9,126	1,103	\$ 10,229
Atlantis	33	\$ 769,560	1	\$ 23,320	191	\$ 4,106,500	0	\$ -	225	\$ 5,247,000	21,500	1,820	\$ 23,320
Blue_Heron	0	\$ -	6.5	\$ 30,225	40	\$ 160,000	16	\$ 74,400	62.5	\$ 290,625	4,000	\$ 650	\$ 4,650
Cape_Hatteras	36	\$ 321,012	44	\$ 392,348	101	\$ 797,799	11	\$ 98,087	192	\$ 1,712,064	7,899	1,018	\$ 8,917
Cape_Henlopen	19	\$ 150,100	22	\$ 173,800	111	\$ 721,500	0	\$ -	152	\$ 1,200,800	6,500	1,400	\$ 7,900
Clifford_A._Barnes	15	\$ 27,000	0	\$ -	42	\$ 75,600	28	\$ 50,400	85	\$ 153,000	1,800	\$ -	\$ 1,800
Edwin_Link	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	10,200	1,590	\$ 11,790
Endeavor	112	\$ 1,366,400	0	\$ -	130	\$ 1,339,000	0	\$ -	242	\$ 2,952,400	10,300	1,900	\$ 12,200
Gyre	64	\$ 604,800	0	\$ -	10	\$ 90,000	58	\$ 548,100	132	\$ 1,247,400	9,000	\$ 450	\$ 9,450
Knorr	55	\$ 1,119,800	0	\$ -	229	\$ 4,236,500	0	\$ -	284	\$ 5,782,240	18,500	1,860	\$ 20,360
Laurentian	0	\$ -	50	\$ -	45	\$ -	0	\$ -	95	\$ -	\$ -	\$ -	\$ -
Longhorn	74	\$ 344,100	0	\$ -	0	\$ -	98	\$ 455,700	172	\$ 799,800	4,000	\$ 650	\$ 4,650
Maurice_Ewing	10	\$ 187,670	0	\$ -	286	\$ 4,686,396	0	\$ -	296	\$ 5,555,032	16,386	2,381	\$ 18,767
Melville	101	\$ 1,822,242	0	\$ -	227	\$ 3,653,111	0	\$ -	328	\$ 5,917,776	16,093	1,949	\$ 18,042
New_Horizon	70	\$ 692,720	0	\$ -	146	\$ 1,307,284	51	\$ 504,696	267	\$ 2,642,232	8,954	\$ 942	\$ 9,896
Oceanus	0	\$ -	66	\$ 752,400	192	\$ 1,881,600	0	\$ -	258	\$ 2,941,200	9,800	1,600	\$ 11,400
Pelican	62	\$ 306,900	19	\$ 94,050	134	\$ 576,200	37	\$ 183,150	252	\$ 1,247,400	4,300	\$ 650	\$ 4,950
Point_Sur	49	\$ 422,625	0	\$ -	81	\$ 607,500	45	\$ 388,125	175	\$ 1,509,375	7,500	1,125	\$ 8,625
Robert_Gordon_Sproul	49	\$ 364,952	0	\$ -	36	\$ 240,624	8	\$ 59,584	93	\$ 692,664	6,684	\$ 764	\$ 7,448
Roger_Revelle	35	\$ 619,395	0	\$ -	267	\$ 4,210,590	6	\$ 106,182	308	\$ 5,450,676	15,770	1,927	\$ 17,697
Sea_Diver	101	\$ 653,975	20	\$ 129,500	17	\$ 98,600	14	\$ 90,650	152	\$ 984,200	5,800	\$ 675	\$ 6,475
Seward_Johnson	40	\$ 511,600	0	\$ -	246	\$ 2,656,800	20	\$ 255,800	306	\$ 3,913,740	10,800	1,990	\$ 12,790
Thomas_G._Thompson	20	\$ 372,420	12	\$ 223,452	165	\$ 2,651,715	73	\$ 1,359,333	270	\$ 5,027,670	16,071	2,550	\$ 18,621

Urraca	0	\$ -	0	\$ -	14	\$ 54,528	165	\$ 642,647	179	\$ 697,175	3,895	\$ -	3,895
Walton_Smith	87	\$ 652,500	62	\$ 465,000	40	\$ 264,000	0	\$ -	189	1,417,500	6,600	\$ 900	7,500
Weatherbird_II	0	\$ -	0	\$ -	167	1,335,332	0	\$ -	167	1,520,702	7,996	1,110	9,106
Wecoma	46	\$ 642,620	31	\$ 433,070	127	1,516,634	0	\$ -	204	2,849,880	11,942	2,028	13,970
Grand Total	1078	11,952,391	441.5	3,821,897	3097	37,751,491	657	5,093,037	5273.5	63,675,603			

Last Updated on 11/3/00
By Mike Prince