

## **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 ó 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	Hilo Honolulu	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	NP9/44 N 130W/	Spiess F./SIO/	San Diego	20/NSF/F
06 Jun	Marine Geophysics	OCE99-07247	San Diego	
10 JUN	NP13/8.5N 105-85W/	Kennan, S./NOVA/	San Diego	44/NSF/F
21 JUL	SeaSoar	OCE	Pto. Calder	Costa Rica
	22,23			
24 Jul	NP13/Eastern Pacific 1	Becker K./RSMAS/	Pto. Caldera	22/NSF/F
13 Aug	N 84/Borehole Instrum.	OCE98-19316	Guayaquil	
	14			
	15,16			
17 Aug	SP3A/transit/	Kurz, M./WHOI/	Guayaquil	05/NSF/P
19 Aug	personnel transfer	OCE00-02461	Pto. Ayora	Ecuador
20 Aug	NP13/Galapagos	Kurz M./WHOI/	Pto. Ayora	27/NSF/F
15 Sep	Hotspot/towed camera	OCE00-02461	Pto. Ayora	Ecuador
16 Sep	NP9/Transit/	Kurz, M./WHOI/	Pto. Ayora	05/NSF/P
20 Sep		OCE00-02461	Guayaquil or	Guayquil
	21,22			
	23,24			
25 Sep	SP3A/Nazca S.A. Plate/	Chadwell, D./SIO/	Guayaquil	40/NSF/F
31 OCT	Marine Geophysics	OCE98-20026	Valparaiso	Peru
	1,2			
	3,4,5			
06 NOV	SP3A/Off Chile - 18-2/	Naar, D./USF/	Valparaiso	42/NSF/F
13 DEC	gravity, mags. dredging	OCE00-02313	Easter Island	Chile
	14			
15 DEC	SA3/transit/	Coale, K./MLML/	Easter Island	15/NSF/P
30 DEC	transit	OCE	Lyttleton	Chile, New Zealand

(Cross date line, lose a day)

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

		DAYS/AGENCY/			
CRUISE	MAP INDEX/AREA/	P.I./INSTITUTION/	STATUS/		
DATES	PURPOSE	PROPOSAL NO.	PORTS	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@gsosun1.gso.uri.edu  
 To: edieter@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

		DAYS/AGENCY/		
CRUISE MAP INDEX/AREA/	P.I./INSTITUTION/	STATUS/		
DATES	PURPOSE	PROPOSAL NO.	PORTS	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.				

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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.

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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.

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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.

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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.

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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.

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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

Agency	Funded	Proposed	TOTAL
NASA	28	0	28
NAVY	20	0	20
NOAA	12	0	12
NSF	165	0	165
STATE	45	0	45
TOTAL	270	0	270

**ROV:**

POC: Jon Alberts LAST UPDATED: 25 September 2000  
 Marine Operations  
 Woods Hole Oceanographic Institution  
 38 Water St.  
 Mail Stop-37  
 Tel: 508-289-2277  
 Fax: 508-457-2185  
 Email: jalberts@whoi.edu

Letter Of Intent

R/V ROV 2001

CRUISE DATES	MAP INDEX/PURPOSE	AREA/PROPOSAL NO.	P.I./INSTITUTION	STATUS/CLEARANCE
24,25,26 MAR				
27 MAR	IN3/Central Indian	Van Dover/W & M/	Seychelles	35/NSF/F
05 MAY	Ridge/Vents, JASON	OCE-9712358	Seychelles	KNORR
	IN3/Indian Ocean/	Fornari, D./WHOI/		/NSF/F
	Jason, DSL-120	OCE-		
	IN3/Indian Ocean/	Humphris, S./WHOI/		/NSF/F
	Jason, DSL-120	OCE-		
	IN3/Central Ind.	Vrijenhoek, R./		10/NSF/F
	R/Jason,DSL-120,ArgoII MBARI/OCE9910799			
6,7 MAY				
18,19,20				
21 APR	NP9/Calif. Coast/	Levin,L/SIO/	Seattle	12/NOAA/F
02 MAY	JASON ROV-methane seep	UAF(CA)-99-15	Seattle	R/V THOMPSON
Allow four days at homeport to mobilize ROV, before trip.				

?? JUN /Hawaii/ Coffin, R./NRL/ Honolulu xx/DOE/F  
 ?? JUL CO2, Jason DE-A126-99FT40623 Honolulu  
 Requires large ship, 18 days, un-scheduled at present  
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17 JUN NP9/Juan de Fuca/ Johnson,P/UW/ Seattle 17/NSF/F  
 03 JUL hydrothermal system th OCE-9907212 Seattle Canada  
 R/V THOMPSON  
 ROV Jason--allow 4 days to re-mobe ROV before cruise. This is a continuation of work performed in CY-2000.

16,17,18  
 19 AUG SP1/Huon Gulf/ Silver, E./UCSC/ Lae, Papua 41/NSF/F  
 23 SEP Jason,DSL-120 OCE-9907153 Lae, Papua R/V  
 24,25 MELVILLE

25,26,27 Oct  
 28 OCT /EPR/ Schouten, H./WHOI/ Manzanillo 34/NSF/F  
 25 NOV Alvin,DSL-120 OCE-9819261 Manzanillo ATLANTIS  
 26, 27 Nov

?? ??? NP9/Juan de Fuca/ Johnson, P./UW/ Seattle /NSF/F  
 ?? ??? Jason OCE-9911523 Seattle Canada,  
 R/V  
 THOMPSON

Lexen program 1st of 2 cruises  
 14 days on station, funded  
 Un-scheduled at present

Agency	Funded	Proposed	TOTAL
NOAA	17	0	17
NSF	143	0	143
<b>TOTAL</b>	<b>160</b>	<b>0</b>	<b>160</b>

*List of Attendees*

NAME	INST/ORG.	PHONE	FAX	E-MAIL
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Epp, David	NSF			Depp@nsf.gov
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Dieter, Emma	NSF			E Dieter@nsf.gov
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Daly, Kendra	NSF			Kdaly@nsf.gov
Itsweire, Eric	NSF			Eitsweir@nsf.gov

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### *Cruise Tracks*

ALPHA HELIX  
ATLANTIS  
CAPE HATTERAS  
EWING  
KNORR  
MELVILLE  
OCEANUS  
REVELLE  
WECOMA

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### *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.



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

Ship	Grant Agency										TOTAL			Daily Rates		
	Ship	NAVY	NOAA		NSF		OTHER			TOTAL	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			