### 2001 Initial UNOLS Ship Scheduling Meeting

#### 13 July 2000 National Science Foundation Room 1235 Arlington, Virginia

0845 Meeting called to order by Dan Schwartz/UW acting chair. The Agenda for the meeting was not modified and is included as <u>Appendix I</u>. Introductions were made and a list of attendees is attached as <u>Appendix II</u>.

**08:50 Letters-of-Intent** for all ships were posted by schedulers in the weeks leading up to the meeting. The most current versions for each ship were displayed from the web site and reviewed in an effort to identify conflicts, double bookings, problems with transits, and to ensure that the ships were appropriate to the science needs. Notations regarding each schedule follows below. The large ships were taken as a group in a modified alphabetical order followed by the remaining ships by coastal region.

### Large Ships:

Atlantis: Will start with some non-ALVIN cruises while ALVIN undergoes a major overhaul period. Because of the late start and work in the Atlantic and on the East Pacific Rise there will not be enough time to go to the Juan De Fuca Ridge. Dolly asked how firm the LWAD program on ATLANTIS was and if it would stay on ATLANTIS if NSF decided to pull their early non-ALVIN cruise off the schedule. The LWAD cruise is pretty firm. Childress is a two-ship operation and the number of dives is still not firm, however, Childress needs to go in first half of the year. He may have to go in 2002. Vrijenhoek is funded for a newer proposal but will only add three to five days to the Alvin cruise scheduled at the Mid Atlantic Ridge and he should go as part of the Van Dover et al cruise in the Indian Ocean, adding 10 days of Jason work.

**Brown:** All NOAA programs in the Pacific. It was asked if BROWN can do the LWAD program in Japan/Korea area. Budget concerns may cause NOAA to drop the ACE-Asia cruise and therefor they would not necessarily go to Japan. The question remained if they would be able to accommodate the LWAD work if the NAVY paid the transit or if this might have a favorable impact on the ability to do the ACE-Asia program. BROWN's LOI is for 280 days, however rising fuel costs and level funding will cause a reduction to 210 days. If BROWN covered the Far East LWAD, then THOMPSON could be available to cover the ROPOS/VENTS work on the Juan de Fuca Ridge.

**Ewing:** Ends a 4 month lay-up period in March, may go to the Pacific for Fisher and Forsythe and then goes back to the Atlantic, then Med., Indian Ocean and Australia. The Pacific work includes Forsythe and Fisher. Forsythe is double booked on REVELLE and claims that his work cannot be done from the EWING. Fisher is also double booked but his preference is the EWING. The program manager for Fisher recommends that Fisher be scheduled on a ship already in the Pacific utilizing the LDEO portable system for seismic reflection. Indian Ocean and Southern Ocean work is weather dependent. There are some potential programs in the future in this area that would require the EWING in 2002. Carbotte is deferred until the EWING can get to the work area. EWING Ship Track as PDF file: <a href="http://archive.unols.org/meetings/2000/200007ssc/images/ewing\_2001.pdf">http://archive.unols.org/meetings/2000/200007ssc/images/ewing\_2001.pdf</a>

**Knorr:** Starts the year in South Africa. Needs to show Fornari et al as Van Dover. Murray is only funded for the number of days in his original request and the exact number of days to be scheduled should be confirmed with Murray and his program manager. Additional days that he had requested are not funded. Clearances need to get to State Dept. at least 7 months in advance for Murray cruise because of the number of countries, some which are tough to get clearances from, and because of the number of players. Of the two requested, only the early Johns cruise is on the KNORR schedule and the later cruise is left hanging because of the need for the KNORR to return for the Simard NUWC cruise. Dolly asked if Pickart could be done from the OCEANUS. Carpenter's BioComplexity cruise still has some decisions left to be made about how days are funded. Carpenter is time sensitive and needs August instead of the later period currently scheduled. This is a conflict with the NUWIC cruise for Simard, which is a two-

ship op with SEWARD JOHNSON (21 Days). . Moving Pickart to another vessel may help resolve this conflict. A ship needs to be found to do the Johns work later in the year. EWING or a British ship may be able to do the work.

**MELVILLE:** Silver work needs ROV, which is a conflict with the Lisa Levin cruise on THOMPSON. Asia Ex for SCS requires clearance from the People's Republic of China (PRC) and this is proving to be difficult. (A version of the MELVILL schedule posted during the meeting by Rose Dufour included a message indicating that it may be a lost cause). The clearance issue needs to be resolved before the drop-dead date set by Bloomer for shifting his cruise to an earlier date than currently scheduled. This alternate schedule was shown as MELVILLE 2 which moves Bloomer right after Fryer instead of doing the SCS AsiaEx work. Need to add 5 days for Patty Fryer to Bloomer. Garcia may be shifted to 2002. Ken Smith's requires Jason II and will need to be deferred until 2002. Need to determine what the Moffett program and funding status is. There is a possibility of adding NAVO Hawaii work and staying in Hawaii before going to the South Pacific for Coale and others in late 2001 or 2002. The timing for Coale needs to be carefully considered because the experiment requires the correct season.

Ship Track: http://archive.unols.org/meetings/2000/200007ssc/images/Melville01.jpg

**REVELLE:** Install multibeam and then test. Chadwell and Becker have switched order with Becker postponed to later in the year. Forsythe is double booked with EWING which is a 66 day leg. The PI's are asking to be picked up at Easter Island. Weller is now on the BROWN and will be removed from REVELLE schedule. Michael's Biocomplexity cruise requirements for the Pacific in 2001 is just for an intermediate vessel, will be removed from REVELLE schedule and is scheduled on WECOMA. Ship Track: <u>http://archive.unols.org/meetings/2000/200007ssc/images/revelle.jpg</u>

**THOMPSON:** Michaels cruise taken off and scheduled on WECOMA. Landry DOE is not clear as to its funding status. This is an iron fertilization program with commercial partners. Levin is the second cruise that is seasonally dependent and should follow the first cruise by 4 to 6 months. She needs the ROV and there is a conflict with the Silver cruise on MELVILLE. Both Levin and Silver have already been deferred due to ROV scheduling conflicts. LEXEN cruise for Paul Johnson is funded and will need JASON. LWAD 62 days includes transit and mobilization. Emerson can go off of Oregon or Baja depending on whether the Dennis Clark/NASA cruise goes. Clark is dependent on Satellite launch and funding. Kennan needs two types of ADCP and Sea Soar and had asked for the REVELLE. New Horizon could possibly do this work because they are already there for Rudnick who is using the same equipment. It should be determined from Kennan and his program manager if this work can be done from NEW HORIZON. Fisher is double booked on EWING and that is the vessel they prefer, see note under EWING above.

**ROV:** Lisa Levin needs to be in February, which conflicts with Silver on Melville in Feb/March. 6 weeks between Levin and Van Dover for shipping is ok. The Paul Johnson cruises shown for Thompson on the ROV schedule is ok. Need to determine if the LEXEN cruise, which also needs JASON, can be accommodated as well. One LEXEN leg could be postponed until 2002. Coffin's work in Hawaii needs an ROV in the summer time. Ken Smith's status is to be determined and would go with Garcia in 2002, ship to be determined. Schouten is using Alvin and DSL-120 in Oct. This could be a personnel conflict with Fornari who is on the Kurtz cruise. Levin/Silver is the major vehicle conflict and shipping from Silver's cruise to the Seychelles for Van Dover could be a problem. If the Blackman cruise on Atlantis in 2000 is delayed or postponed that would create additional conflicts.

## INTERMEDIATES, REGIONALS & LOCAL VESSELS:

**ALPHA HELIX:** GLOBEC panel is meeting in a week and a half. There will be a lot of GLOBEC cruises, some conflicts between the periodic cruises and the longer cruises in the spring. Will likely need both the Alpha Helix and Wecoma, which could create conflicts with the COAST program and equipment.

**WECOMA:** Michaels needs 21 days in Hawaii instead of the 9 shown on the schedule. Bishop is a double booking with NEW HORIZON and should be resolved in a way that results in the least amount of

transit. Gulf of Alaska and COAST are conflicts. Pecher/ODP needs to go to 2002.

**POINT SUR:** Garfield may need to move later by a couple of weeks to accommodate PI schedules. Chavez is not funded and his summer cruise may need to go on another ship if funded.

**NEW HORIZON:** Bishop is double booked with WECOMA. Dever and Bishop could be linked to save on transit, however SIO and OSU should resolve the schedules in a way that results in the least amount of transit. Dever's early cruise on NEW HORIZON needs to be complete before Garfield on POINT SUR. Rudnick needs to go in September with the BROWN, Ferrel cruise. Weather is a factor. Need to add a CENCAL NAVO cruise in the summer. Need to determine if Kennan can be scheduled on NEW HORIZON before Rudnick or if he has to use a large ship. Goldfinger will not happen until the Prod Drill problems are worked out which is not likely during the coming year. Constable is still pending. Ohman proposal and program needs to be identified. Childress is funded and needs to be moved to coincide with Atlantis cruise in the first half of the year and may need to be scheduled in 2002.

**SPROUL:** Very weak schedule. Need to add 15-day NAVO cruise. Pineda needs two 8 day and one 7 day cruise in March, July and November off of Mexico. Yayanos includes 6 days postponed from 2000, but he needs to talk to the program manager to be sure that is ok.

**BARNES:** Frost is funded, There was some question about the Devol/ONR cruise, but that should now be worked out with his ONR program manager. Perry cruise is a NOPP (Larry Clark) program cruise. There is a Devol/NSF cruise to add, probably in 2002.

**KOK:** University of Hawaii should send an email version of a letter of intent to UNOLS to share with other schedulers. Prahl cruise should be added to HOTS and shown as 3 additional days on two of the existing HOTS cruises. HOTS has 60 days total. Malahoff does not have any shiptime on KOK.

### Gulf Coast:

**GYRE:** 9906823 is the number for Santschi and it is funded. Cruise identified as AUV is probably a Mount/ONR cruise and the funding status is unknown. LWAD cruise is good.

**LONGHORN:** Gardner and Larvent are declines. NAVO will be 30 days. Benner is a second year program and should be shown as Chem. Ocean. The status and identity of the proposal for the Bruland and Devol ship time requests are not known.

**PELICAN:** N. Rabalais will probably not get all the time she has asked for. Hwang and all NRL work is still preliminary and the level of support for shiptime is approximately the same as last year. NAVO work if funded will fill schedule. Walsh is funded but details need to be worked out for level of work. Kiene should be shown as chemical oceanography. Paul is double booked with WALTON SMITH and the schedules should be resolved for the most cost efficiency.

**WALTON SMITH:** Two NAVO cruises scheduled with the January cruise possibly being shifted later. There is some confusion about which NAVO requirements they have scheduled. Pam Reid is declined. Paul cruise is a double booking with Pelican and the schedules should be resolved for the most cost efficiency. Jury's cruise is not funded.

**SEA DIVER:** Walsh has been moved to WALTON SMITH. Jury is declined. Finney funding for submersible will determine if that stays on SEA DIVER. Williams cruise needs to be coordinated with Seward Johnson. Schedule is down to 119 days.

**SEWARD JOHNSON:** Carpenter is ok. Duda should be combined with Limeburner and add three days to Limeburner's cruise. This is all double booked with Oceanus and should be resolved to result in the least transit. Limeburner needs to "see the rabbit" because it will be difficult to coordinate the timing of his cruise relative to the end of battery life on his equipment. Plueddeman is double booked and is not currently funded by NOAA for shiptime. He is trying to combine with a Sylvia Garzoli cruise from Barbados. Simard is locked into time frame and is funded. Hansell is funded for his Atlantic work but is

double or triple booked. EDWIN LINK and SEWARD JOHNSON schedules may be combined with the EDWIN LINK being laid up.

**EDWIN LINK:** Burdette LWAD cruise is moved to ATLANTIS. Olson is "deb" [verify program] and is still pending. Joye (LEXEN) will not be funded and Sobecky will be funded but notification has not gone out to PI's. Julie Olsen is declined. Funding decisions and the results of eliminating double bookings for East Coast intermediates will determine if it is necessary to combine EDWIN LINK cruises with SEWARD JOHNSON and lay up EDWIN LINK.

**BLUE FIN:** No schedule submitted. The contract has been let for SAVANNAH but it is not known when it will be available for service and what the plans are for BLUE FIN in the interim. They are between marine superintendents. UNOLS office should call Janke to see who is scheduling and what the status is.

**CAPE HATTERAS:** Hwang could conflict with Pelican Hwang cruise. Jury cruise is not funded. Benner funding needs to be checked to see what program is scheduled. Matrai is funded but is double booked with ENDEAVOR and her cruise scheduling should be resolved for the most cost efficiency. Anderson should be three cruises with 7, 7, & 10 days. He should check with program managers for the final breakdown, which may be modified. The HATTERAS schedule only shows two nine-day cruises.

**CAPE HENLOPEN:** Staying in the area. There are two double bookings with ENDEAVOR. Ward could be done with HENLOPEN if the number of people can be reduced. HENLOPEN is already in the area doing similar work. Schoefield will go on ENDEAVOR. Goff cruise cannot overlap with ENDEAVOR cruise. Sharp's Biocomplexity cruise is declined. Older Sharp proposal is funded.

**WEATHERBIRD:** Hansell one-day cruise is funded and is not a double booking. The rest of the scheduled NSF work is also correct.

**ENDEAVOR:** Double bookings include the Onslow Bay and Kings Bay NAVO cruises, Hansell, Schoefield, Ward and Matrai. See note below about East Coast Intermediates working together to achieve cost efficient schedules. Pickart cruise on ENDEAVOR is not funded, however the KNORR Pickart cruise could move to an intermediate. Binder is funded but needs to sort out scheduling conflicts. ENDEAVOR double bookings with CAPE HENLOPEN for Schofield and Ward will be resolved by putting Schofield on ENDEAVOR and Ward on HENLOPEN after contacting Ward to confirm that she can do the work on HENLOPEN.

**OCEANUS:** Duda scheduled as extra days to a transit south, but is double booked with Seward Johnson. Weller cruise has changed location from Bermuda to Martha's Vineyard with several shorter cruises based on funding agency decisions. Double bookings are NAVO, Hansell, Duda, Baringer, Limeburner, Plueddemann and D. Wilson. See note below about East Coast Intermediates working together to achieve cost effective schedules. Ellery Ingall (0085464) is pending but not scheduled. Don't need to schedule yet. Onslow Bay NAVO cruise could go to the HATTERAS. OCEANUS will look at doing the Pickart cruise currently on KNORR.

**LAURENTIAN:** Moore is funded, but can't be done from LAURENTIAN or BLUE HERON so must wait for larger ship or arrange a charter vessel in the Great Lakes. Cuhel is pending and Eadie field season is supposed to be over and will probably not be 115 days. The program manager (Larry Clark) needs to talk with the PI. Schedule will not be anywhere near as strong as it has been the last two years.

### BLUE HERON: NSF cruises are ok.

**URACCA:** No schedule posted, probably one NSF cruise for Glenn. Need to determine who the scheduling contact is.

#### 12:15 Break for Lunch.

13:15 Mike Prince gave a brief statistical analysis of the schedules for 2001 (appendix III)

### 13:30 Begin conflict resolution session.

NAVO double bookings exist for the Mayport (formerly Kings Bay) work with four ships that NAVO will review and decide on. Also for Onslow Bay work which has typically been done from the HATTERAS.

### East Coast Intermediate/Regional vessels:

ENDEAVOR, OCEANUS, SEWARD JOHNSON, CAPE HATTERAS, and CAPE HENLOPEN. Need to get together and work out new effective schedules that eliminate double bookings, minimize transits, and are cost efficient. The NOAA cruises out of Barbados (currently on OCEANUS) need to be kept together. Duda needs to combine with Limeburner and this would add 2 or 3 days to Limeburner. Double bookings for the East Coast vessels include two NAVO cruises, M. Baringer/AOML, Carpenter/SUNY, Duda/WHOI, Hansell/BBSR, Limeburner/WHOI, P. Matrai/Bigelow, Pickart/WHOI, Plueddemann/WHOI, Schofield/Rutgers, and D. Wilson/AOML. As noted above, Plueddemann is not funded by NOAA for shiptime. ENDEAVOR and CAPE HENLOPEN have resolved double bookings, pending word from BESS WARD regarding the acceptability of using HENLOPEN. Schofield will go on ENDEAVOR. Schedulers for these vessels should update their schedules and identify any pertinent issues or factors that would help to determine how the cruises should be divided. At first glance it appears that there should be sufficient work for all the vessels with the possible exception of the EDWIN LINK. A conference call or short meeting will be scheduled as appropriate after a few more funding decisions are known and the next versions of schedules are published. The end result should be schedules that eliminate un-necessary transits, keep the schedules as healthy as possible and reduce the overall cost to the funding agencies.

PELICAN, LONGHORN, and WALTON SMITH will work out double bookings and the possibility of spreading out some of the work such that the most cost efficient and effective schedules possible are achieved.

NEW HORIZON will revise schedule based on funding decisions and the need to move some cruises on or off the schedule and then look at how the double booking for Bishop with the WECOMA can be resolved.

# LARGE SHIPS PACIFIC:

Forsythe cannot go on the EWING. The ROV conflict with Levin and Silver is extremely difficult to resolve and both PI's have already been deferred to later dates that originally requested because of previous scheduling conflicts. Deferring Levin's work is not acceptable because it this cruise is a follow on to a fall cruise this year. Schedulers need to rework schedules and identify all the problems and any potential solutions prior to a conference call. A meeting could be scheduled if necessary to solve the various problems. The SCS clearance issue needs to be resolved as does the clearance and scheduling issues for the two LWAD cruises. The second ship for the far east LWAD needs to be determined. Coffin/NRL and DOE need to be contacted regarding the level of funding and the status of the two-ship requirement for their Hawaii work. ROV scheduling for Coffin needs to be considered and a second ship needs to be identified. Fisher cruise needs to be resolved between THOMPSON and EWING or other large ship in the Pacific. As noted under the EWING write up, Fisher's group would prefer the EWING, but the program manager's recommendation based on their proposal is that any Large ship already in the right part of the Pacific should do this work with the LDEO portable seismic system. Scheduling Fisher on Revelle may require shifting other work in order to meet timing constraints. Fisher should contact his program manager to determine if any particular ship requirements are approved and scheduler's should propose a solution with the least amount of transit. The scheduling of Coale's work needs to be determined so that it fits in the correct time frame in early 2002.

#### Other issues to be resolved:

Need to determine the number of days for Biocomplexity, put Carpenter on Knorr and take Pickart off. Carpenter cannot be in November and needs to be scheduled earlier.

Dick Norris has a funded ancillary cruise to do a site survey of Demerara Rise, Suriname.

Area of Operation: AN9 Lat/Long: Begin: 9N 55W End:9.2N 54.5W They have a portable air gun system and need a ship in the right area. Ship time request is at:

http://www.gso.uri.edu/cgi-bin/fv.cgi?19991217114109-00120000000000Norris,Richard,D

The Johns cruise off South Africa in the latter part of 2001 needs to be scheduled on EWING or a British research vessel.

The status of research vessels conducting LWAD cruises in areas that would normally need a foreign clearance needs to be resolved at a level that will set appropriate policy. When agencies representatives have determined where their agency stands on this issue, it should be addressed and resolved.

All large and Intermediate/Regional ships should generate cruise tracks for the scheduling meetings in the future and should generate tracks for this year as part of revising their schedules. They should be submitted to the UNOLS office, preferably in an electronic format and they will be added as appendices to the minutes. The UNOLS office will investigate creating a tool that will assist schedulers in easily creating cruise tracks in a pdf file format that is easily viewed on the web and can be submitted with their ship operations proposals.

**RESEARCH VANS:** During a minor technical timeout Matt Hawkins discussed standard Van Specifications that he put together with other members of RVOC. They are posted on the UNOLS web site and he is looking for feedback from scientists and operators. The URL for the van specs page is:

IMO Guidelines for vessels operating in Ice covered areas: Alexander Sutherland and Anita Eisenstadt (General Counsel's office) reported on the Polar Code. Several years ago there was German paper on the "Requirements for ships intended for service in Polar waters" presented to IMO. This was a simple requirement for appropriate ice strengthening to be certified by an accredited classification society. It then went to the design and equipment committee and during ten year process became a detailed set of rules for the design of ships operating in Polar Regions. In the mean time the International Association of Classification Societies (IACS) (ABS etc.) decided to coordinate their polar classifications to make them uniform or at least harmonized. The Polar Code that was produced was evaluated to be too detailed and possibly in conflict with other international agreements. The Coast Guard on behalf of the US sent a message that the Polar Code was not satisfactory. The Antarctic community also objected to the Code and the Antarctic has been removed from the code. Code now only covers ice-covered waters north of 60 degrees. Guidance was given to the subcommittee to revise the code such that it would only be guidance and apply only to SOLAS vessels. Also guidance should not duplicate other SOLAS and MARPOL rules. A new revised draft was submitted to IMO but it did not appear to take into account the above guidance and it was still substantially the same as before. The US then submitted a marked up version, which became the working document for the meeting. They were still trying to take into account the beneficial elements of the other draft Polar Code and other documents submitted. Canada wanted to keep the provisions of the draft Polar Code intact.

Copies of the working drafts were passed out to the SSC to review and we were asked for input. Of note is that for the first time Ice Covered areas are defined other than in the law of the Sea. There is a parallel effort going on in the Antarctic. Some UNOLS vessels may fall under these guidelines if they work above 60 degrees. Al Sutherland would like input by the end of August. UNOLS will distribute this to AICC and maybe put up on the web. Comments should go to alsuther@nsf.gov and aeisenst@nsf.gov. The UNOLS office will send an email out to UNOLS community about this issue and have interested people contact Al Sutherland (703-306-1045 x 7336) or the UNOLS office (831-632-4410 or office@unols.org) if they want a copy to review.

### **Other Business:**

The discussion of special system schedules was considered to have been covered to the extent possible during the earlier discussions of schedules. A discussion on the foreign clearance issue for LWAD cruises

was deferred until a better determination from Navy authorities can be obtained.

The concerns regarding bottlenecks on the Juan de Fuca Ridge and the schedule of the R/V SONNE and her effect on UNOLS vessel scheduling, were discussed. SONNE will probably not be in that area in 2001.

A brief discussion was held regarding the Letter of Intent, Scheduling and Ship Time request systems was held.

Some of the suggestions for improving the existing systems and procedures included:

- Add a Save button to the letter of intent and schedule editing pages that will allow saving the data to the data base with out generating any emails or posting the new version of the schedule. This will prevent the loss of data that might occur if a computer crashes during the process of editing a schedule.
- Add a box so that PI's can show the number of port days needed before and after a cruise on the Ship Time Request form
- Make it clear that the PI should only list the number of science days needed and the location where the science program starts and ends should be clear. The schedulers would then be responsible for determining what the transit days are to get to the science operations area.
- Schedulers need to create separate "cruises" for transits. Also it was recognized that there are more than one type of transit. The process of clearly defining transit days needs to be completed. Transits could include travel from one port to another to pick up the next science party and transit from the port of loading to the science operations area. The latter is a little more difficult to define if there is any science being conducted during the transit. Short transits of a day or less to the operating area from port, probably do not need to be separated from the science days, but when there is a several day trip out to the area of operations this should be shown as a separate cruise with the ports of "at sea" or just a blank shown between the different segments of that cruise. In theory this could result in five separate "cruises" in the case of a ship that leaves home port, transits to another port to load the science party, then transits a thousand miles off shore before conducting the science program, then transits back to the scientist's port for unloading and then transits home. A third type of transit would be those involving going to the shipyard or some other non-science related activity. The Ship Scheduling committee should come to concurrence with the funding agency representatives on how to define transits and show them on schedules.
- Instructions to the schedulers on the purpose of the "transit bank" and how to use it should be provided by the UNOLS office.
- The ship time request system should generate emails to PI's after incorrectly completing a request form such that it might not be saved and as a reminder when they have created a draft request that is about to reach it's 30 day expiration date. An automatic reminder to enter the proposal number after a certain number of days would be useful as well.

Some ideas for the future that would improve the system's utility to schedulers and scientists included:

- Adding the capability for the PI to have the system generate a PDF file of the shiptime request in a form that could be attached to their proposal and submitted on Fastlane. A reminder to add the Proposal number when using this feature would improve our ability to capture this number, since they would have access to that number when submitting a proposal on Fastlane.
- Explore the idea of linking the above feature with instructions on Fastlane to prompt PI's to create their shiptime requests and to enter the proposal number on the UNOLS system.
- Create a system where the schedules are linked directly to existing ship time requests. In the truest sense a schedule could be created by adding a ship name, start date, start port, end date, end port, port days and transit legs to an existing shiptime request. All other information should already be available on the shiptime request. The exact way this is done will take some study and work, but the goal would be to clearly tie schedules to shiptime requests.
- Create the ability to generate graphical displays of ship tracks from schedule databases.
- Create a tool for generating pdf files of cruise tracks that can be submitted with Ship Operations Proposals and used during scheduling meetings.

The UNOLS office requests that any schedulers or PI's that have technical problems with the existing system send a message to office@unols.org rather than dealing directly with the programmer at URI. If it is necessary to contact the URI system administrator directly because of urgency, please send a report of the problem and the resolution to the UNOLS office so that they can follow up on any needed changes or improvements.

A working group on continually improving the scheduling and shiptime request system should be established and include schedulers, scientists, UNOLS office staff and funding agency representatives. This has already been established to some degree with Mike Prince, Joe Ustach, Jack Bash, Holly Smith, Dolly Dieter, Beth White and Tim Pfeiffer who have created a draft outline of what the scheduling system should accomplish and how we might achieve these goals. The UNOLS office will redistribute that draft and ask that a working group be established. Regardless, anyone with suggestions for improvement should send them to the UNOLS office.

Meeting was adjourned at 1600.

### Appendix I Agenda

### 2001 Initial UNOLS Ship Scheduling Meeting

13 July 2000 National Science Foundation Room 1235 Arlington, Virginia

08:30 Convene Introductions of Schedulers and other Attendees Announcements

08:45 Letters-of-Intent:

Brief run-through of posted LOIs (In-room computer installation with projection to screen) As conflicts and double-bookings appear, schedulers will call these to attention. If quick resolution of a specific problem cannot be achieved, it will be noted and tabled to the afternoon conflict-resolution session.

10:00 Coffee Break

10:20 Resume LOIs screening.

11:45 Break for Lunch.

13:00 Finish any remaining LOI screening. Begin conflict resolution session.

14:00 Special systems schedules: LWAD, ALVIN, JASON, ABE, LDEO-Portable MCS, Juan de Fuca bottleneck and R/V Sonne's schedule.

14:30 Coffee Break

14:45 Discussion of Letter-of-Intent System and Transit Bank. UNOLS Office report on development of scheduling/mapping software Selection of next meeting date. Other business.

Adjourn by 15:45.

#### NOTES TO SCHEDULERS:

 Please update your Letters-of-Intent with the latest possible information, right up to the day before the meeting.
If you feel a track chart or map will assist in presenting your planned cruise year, please bring a transparency for the overhead projector.

# Appendix II

### List of Attendees at July 13, 2000 Ship Scheduling Meeting

#### Arlington, Va

| Name               | 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              |
| Daly, Kendra       | NSF       | (703) 306-1587      |                | kdaly@nsf.gov                |
| Diebold, John      | LDEO      | (845) 365-8367      |                | johnd@ldeo.columbia.edu      |
| Dieter, Dolly      | NSF       | (703) 306-1576      | (703) 306-0390 | edieter@nsf.gov              |
| Hahn, Bill         | URI/GSO   | (401) 874-6554      | (401) 874-6574 | bhahn@gso.uri.edu            |
| Hawkins, Matt      | UDEL/CMS  | (302) 645-4341      | (302) 645-4006 | hawkins@udel.edu             |
| Itsweire,Eric      | NSF       | (703) 306-1587      |                | eitsweir@nsf.gov             |
| Knox, Bob          | SIO/UCSD  | (858) 534-4729      | (858) 535-1817 | rknox@ucsd.edu               |
| Martin, Bob        | UTMSI     | (361) 749-6760      | (361) 749-6777 | rmartin@utmsi.utexas.edu     |
| Muller, Richard    | MLML      | (831)633-3534       | (831) 633-4580 | rmuller@mlml.calstate.edu    |
| Newell, Virginia   | UM/RSMAS  | (305) 361-4787      |                |                              |
| Osgood, Kenric     | NOAA-COP  | (301) 713-3338 x135 | (301)713-4044  | kenric.Osgood@noaa.gov       |
| Pfeiffer, Tim      | ONR       | (703) 696-6999      |                | pfeiffert@onr.navy.mil       |
| Rabalais, Steve    | LUMCON    | (504) 851-2808      | (504) 851-2865 | srabalais@lumcon.edu         |
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### **APPENDIX III**

#### **Statistical Summary of 2001 Schedules**

http://archive.unols.org/meetings/2000/200007ssc/200007sscap03.html