UNIVERSITY - NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

UNOLS COUNCIL MEETING

SUMMARY REPORT

July 25-26, 1996

Conference Room A
Courtyard by Marriott, Orlando Airport
Orlando, FL

Meeting Report
UNOLS COUNCIL

Conference Room A
Courtyard by Marriott, Orlando Airport
Orlando, FL
25-26 July 1996

Appendices

I. Meeting Participants
II. Council Meeting Agenda
III. FIC Report Outline
IV. NSF View Graphs
V. R/V ATLANTIS/ALVIN Schedule

Thursday, 25 July 1996

INTRODUCTION - The UNOLS Council met in the Courtyard by Marriott, Conference Room A on 25-26 July. The participants of the meeting are listed in ***Appendix I.*** The agenda, ***Appendix II,*** was followed except at noted in these minutes. The meeting was opened at 0830 25 July 1996 by the Chair, Ken Johnson.

ACCEPTING MINUTES - The minutes from the February Council meeting were accepted as written.

COMMITTEE REPORTS:

Research Vessel Operators' Committee (RVOC)- Paul Ljunggren, Vice Chair for the RVOC, provided the report from that Committee. The Committee continues to work on a set of physical standards for crew members which will be keyed to their job description. A subcommittee is beginning the process of developing a safety video for science parties. Jack Bash reported that a supplemental proposal has been submitted to the NSF for funding of this video. Mike Prince and Peter Betzer have been working on revisions to the cruise assessment reports. Dave Powell has volunteered to lead the effort to develop a small vessel primer. Paul reported that the annual meeting will be held in St. Petersburg, FL 22-24 October 1996. Subjects planned for discussion include GMDSS, phasing out of radio officers, INMARSAT B and SeaNet as well as the above activities that are in progress.

DEep Submergence Science Committee (DESSC) - Mike Perfit, DESSC Chair, was unable to make this Council meeting and a brief report was given by Jack Bash. Jack reported that the AII has been retired and ALVIN was in overhaul. The ATLANTIS has been launched and will be delivered in the spring of 1997. The ATLANTIS and ALVIN expect to start operation in the summer. With ALVIN in overhaul the ROVs are in a "fly away" mode and are fully subscribed. The problem seems to be scheduling and ensuring that the vehicles can be transported from one location to the next in time for the operations. Jack suggested that there was a lag in the apparent acceptance of the ROVs, however, they are now fully subscribed. The question is will they continue to be sought when ALVIN is available and if so will there be enough money to accommodate both the ROVs and ALVIN. Dick Pittenger said that there should not be a problem if both the ROVs and ALVIN are operated from the ATLANTIS but could be a problem if the ROVs are continually needed in the "fly away" mode. The DESSC has requested that WHOI provide the Committee with a white paper on how the personnel from the ALVIN group and DSL will be integrated and the operational plans for the combined group. The Committee is concerned with the high tempo of ROV operations.

Fleet Improvement Committee (FIC)- The FIC Chair, Chris Mooers, provided the report. Chris passed out an outline of his report which is included as ***Appendix III***. The FIC met at ODU in June and received information from Tom Curtin and Bob Bluth concerning autonomous underwater vehicles (AUVs) and remote pilotless vehicles (RPVs). This technology provides real time telepresence utilizing inexpensive data collection nodes linked together. Chris pointed to this technology as a window into the future for oceanographic studies and that it would be a multiplier for shipboard science. Chris reported on the subcommittee work of Eric Firing and Rich Findley in shipboard technical support and Bob Detrick's report on the possible UNOLS/NAVO science interaction. Discussion followed as to how this interaction should or could work. It was concluded that there is great potential here but that we should proceed very slowly letting the cultures work through their differences before expecting the possible interaction.

Chris wants to focus the FIC on the future by looking at long-term needs for UNOLS. In the mean time the FIC is working on an Interim Fleet Improvement Plan as well as the new FIP. The FIC also plans to develop ship Mission Requirement Statements for mid-Pacific Basin.

Ship Scheduling Committee (SSC) - The SSC Chair, Don Moller, informed the Council that the 1996 schedules are in place and essentially firm. R/V CAPE HATTERAS was laid up for the year and both the NEW HORIZON and POINT SUR had short schedules because of overhauls. The ATLANTIS II has left the Fleet and the REVELLE is presently on its delivery cruise. The schedules for 1997 are still in flux. Significant progress has been made with the complex ship requirements of the Atlantic GLOBEC (NSF/NOAA) and Coastal Ocean and Mixing (ONR) programs.

The large ship schedules were driven by the need to pick up the Nowlin moorings in the Indian Ocean and the Luther moorings south of Tasmania. Because R/V MELVILLE was the only large ship in position to do this work significant schedule adjustments were necessary. The THOMPSON is expected to be involved in a British funded project that will be using the ROV JASON working near Okinawa. The scheduling of JASON has been very difficult because of the funded programs at all points of the globe.

Don Heinrichs said this year has stimulated significant comments from the PIs and suggested that we need to look at our scheduling process more closely. Many scientists have been moved from one ship to another. Jack Bash suggested that tight funding and the need to produce the most cost effective schedules has been the primary cause of the many changes. This, coupled with the more open process and instant e-mail communications, exposes some of the rough edges in scheduling. The Ship Scheduling Committee will address this issue at its September meeting.

Research Vessel Technical Enhancement Committee (RVTEC)- Rich Findley, RVTEC Chair, provided the report. RVTEC has scheduled their annual meeting at Harbor Branch Oceanographic Institution, Ft. Pierce, FL 11-14 November 1996. The RVTEC has been working on real-time data collection problems, INMARSAT and SeaNet, virtual instrumentation, ROVs/AUVs/RPVs, fiber optic cables (both steel and KEVLAR), standardization of data formats, and shipboard upgrades (in conjunction with the FIC). These will all be addressed at their annual meeting.

AGENCY REPORTS:

National Science Foundation (NSF) - Don Heinrichs provided the report for NSF. His slides are included as ***Appendix IV.*** Don started with a review of the NSF Strategic Plan "NSF in a Changing World". The plan, "The NSF Basic Mission and Purpose", explains the NSF major themes and provides a long range GEO plan (FY 1997-2001).

Don explained staff changes at OCE with Lisa Rom taking one year of leave and Sandy Shor filling her responsibilities. He gave a summary of the 1996 budget which reflects an increase over 1995 of $.9M or .5% overall, however, Ocean Centers & Facilities receives a $1.5M cut in funding.

NSF has been tasked by both the House and Senate for testimony on the impact of adding a new Navy built ship to the UNOLS Fleet. A summary of each of their requests is included in ***Appendix IV.*** Don has asked for input from UNOLS so that NSF can respond. Discussion followed both at this time and later in the meeting.

Office of Naval Research (ONR) - The ONR report was presented by Sujata Millick. ADM Gaffney has relieved as Chief of Naval Research and is double hatted as Chief, Naval Meteorology and Oceanography Command. Congress is getting closer to

passing the National Ocean Partnership Act. This act had a provision for $7.5M for NAVO to use UNOLS vessels for survey work. Although the funding for the Partnership Act has been reduced and the survey money dropped out, a separate earmark has restored the money for NAVO surveys. Sujata reported that NOAA will relinquish the chair of FOFFC which will go to ONR.

The Navy is planning to retire SEACLIFF and TURTLE. The future of these vehicles is still under discussion. The Navy funding for FLIP will end in 1997 and if the ship is to remain active it must earn its daily rate. Presently FLIP has been heavily subsidized. The future of this vehicle is in question.

Sujata informed the Council that Congress continues to support the $45M for a Navy owned, university built SWATH. The money is expected to go into the Navy's ship construction funds and will be administered by NAVSEA.

ONR is working with Japan on a partnership program for work in the Sea of Japan. One Class I UNOLS ship is likely to be used in this program.

National Oceanographic and Atmospheric Administration (NOAA) - The NOAA report for the fleet was presented by Captain Marty Mulhern. The NOAA ship RONALD H. BROWN was launched May 30, 1996 and is presently being outfitted. The ship will be delivered in March 1997 and is expected to be in operation 60 to 90 days later. The KA'IMIMOANA is in its first operational TAO cruise. The conversion was completed in mid-June and met all program requirements. The ship conducted very successful Acoustic Thermometry of Ocean Climate (ATOC) work for Dr. Walter Munk of SIO on its transit from Seattle to Hawaii. It has been equipped with a real-time high speed data transmission system. The MALCOLM BALDRIDGE and DISCOVERER are both completing their final cruises. These ships will become inactive upon their return. The ship MOUNT MITCHELL has been sold, and the OCEANOGRAPHER and HECK are in various stages of preparations for sale/disposal. Modification of the HALCYON, a small SWATH vessel obtained from the Corps of Engineers for the Great Lakes Environmental Research Laboratory (GLERL) of NOAA, has been completed in Norfolk. It will transit to GLERL in August.

The NOAA ship RUDE was on the scene quickly following the crash of TWA Flight 800 off Long Island. After participating in the initial search for survivors and surface debris, the RUDE has been providing systematic surveying data using its high resolution side scan sonar. The ship operations are integrated with both the Navy, USCG, and other Federal agencies. The NTSB, Navy, and the divers have expressed the highest regard for the side scan sonar data quality.

NOAA/UNOLS cooperation is steadily increasing, and the NOAA/UNOLS committee, chaired by Alan Thomas, Acting Associate Administrator for OAR, and Ken Johnson, is exploring new approaches to cooperation.

NOAA has identified $2.6M per year for charter of UNOLS ships for OAR programs. These funds are from the Marine Services line item that support the NOAA fleet. In 1997 the figure will be $3.1M because the RONALD H. BROWN will not enter service until mid-year. Other charters funded by NMFS and other NOAA programs such as NURP, usually on the smaller UNOLS vessels, also will continue. A cost comparison (A-76 study) is being started for the KA'IMIMOANA to determine the most cost effective way to operate this ship. NMFS has decided to exercise the option to continue the charter of a Russian ship for the second year for fisheries Antarctic Marine Living Resources (AMLR) work. A copy of a letter from the principal investigators about the fact the vessel is excellent for the program and met all requirements was provided to the Council. The ship's trawling equipment will be re-installed to meet the scientific cruise requirements.

Congressional language in the proposed NOAA budget for FY 1997 differs in the House and Senate. The House version zeroes out NOAA Marine Services funds and provides those funds to the line organizations for "acquisition of data". The total is split between NOS, OAR and NMFS. The fleet modernization line item (FRAM) would be funded to $6M, a decrease of $2M from 1996, and would be restricted to be used only for "routine maintenance of existing vessels". The size of the NOAA Corps would be reduced to zero by the end of September 1997. In the Senate (which was considering the NOAA budget at the same time as the Council meeting) the proposed budget and size of the Corps were essentially unchanged from FY 1996 levels. This will be reviewed when a House/Senate conference committee meets later this year. The Administration has proposed that NOAA Corps be downsized and/or eliminated, but has also expressed concern that most of the functions now performed by NOAA Corps must continue. It would require legislative action in order for something like elimination of the CORPS to occur.

NOAA/OAR - Alan Thomas provided a programmatic view of NOAA's oceanographic and atmospheric research programs. Alan explained that the TOGA TAO array will need servicing and will take the greater part of a ship year. The KA'IMIMOANA has been outfitted to do this work and could be available for other programs. An evaluation of the operating mode will be conducted through the A-76 process. NOAA would like to investigate innovative ways for ship operations to maximize the effectiveness.

Alan discussed the NOAA/UNOLS Working Group he co-chairs with Ken Johnson. The Group was organized at the request of NOAA Administrator, Jim Baker, to investigate ways for NOAA and UNOLS to work more closely together. All options should be kept open. A subcommittee of this Group has been working on the NOAA programs that would be available for UNOLS ships in 1997. The Group is addressing how best for the agencies NOAA, NSF and ONR to interact. Discussions will be starting on how UNOLS might work with NOAA Fisheries in some of their oceanographic programs. Finally, the Group plans to look at coastal issues and how there may be a NOAA/UNOLS interaction.

Alan expressed, and the Council agreed, that there are presently many programs that include both NOAA and academic scientists. These function very well and should be expanded. Ken Johnson stated that NOAA already has one person on a UNOLS Committee (Hugh Milburn on DESSC) and that UNOLS would very much like one or more on the Council. Alan agreed.

A discussion followed as to whether or not NOAA labs could be UNOLS members. Discussion pro and con ensued, and no conclusion was reached, however, further investigation is planned. This will be an agenda item for the next Council meeting.

Hugo Bezdek, NOAA/AOML, reiterated the Atlantic Oceanographic and Meteorological Laboratory's interest and openness to discussion of opportunities for increased cooperation. He pointed out that presently almost all of the activities of the NOAA laboratories are collaborative with academic scientists, either scientist to scientist, through the joint institutes, or as part of national and international scientific programs.

Eddie Bernard, NOAA/PMEL, provided the Council with information on the programs of the Pacific Marine Environmental Laboratory which include three major time series. These are TOGA TAO, FOCI and VENTS. Eddie explained that these programs need repeated servicing and that consistency of both science and operating platforms are paramount. This consistency of operation results into economies of both time and cost. The value of the data increases exponentially with time and is only enhanced with repeatable service.

Alan Thomas concluded with a brief update on NOAA/NURP. As in the past the Administration did not include NURP in the FY 1997 budget request. However, because of NURP's strong support in the Senate, it is expected that the programs will be continued and that NOAA will continue to support ALVIN operations.

United States Coast Guard (USCG) - Larry Jendro provided the report for the USCG. The reorganization at the Coast Guard headquarters has been completed. RADM Norman Saunders is now Chief, Operations. RADM Paul Busick is Chief, Operations Policy Directorate which houses the Office of Navigation Aids. Rick Rooth has relieved Captain Summy as Chief, Icebreaker Division under the Office of Navigation Aids. Personnel in the Icebreaker Division has been reduced from seven to three.

Progress has been made in cooperation between the USCG and NSF. A senior policy group has been named and a working group appointed. Larry and Rick Rooth will represent the Coast Guard and Tom Pyle and Don Heinrichs, NSF in the working group. The working group plans to publish a description of the HEALY's oceanographic capability, formalize an annual event to schedule the icebreakers,

produce a strawman research plan, produce an announcement of opportunities, and collect proposals.

Larry reported that there was no funded icebreaker science in 1995 or 1996 and none apparent for 1997. The Coast Guard had a training cruise in 1996 to the Arctic and provided an opportunity for science participation. This was well received by those involved.

The Council briefly discussed the charter of the Arctic Icebreaker Coordinating Committee (AICC). Concern was expressed that the Committee's activities were limited to the Arctic and that there is a duplication with the Antarctic Research Vessel Oversight Council. It was suggested that the membership of these two committees overlap and that their meetings coincide in time and place. Ken Johnson reported that Jim Swift had agreed to serve as chair of the AICC but that the Committee has yet to be named. The charter for this Committee will need approval at the Annual meeting this year. The Committee is expected to receive funding from both the Coast Guard and NSF.

On Friday, July 26, Larry reported on the HEALY. The construction of the HEALY is on schedule. The keel will be laid in September with delivery expected in June 1998. The ship is being built for the Navy, delivered to the Navy, then will be transferred to the Coast Guard. It is not known if many changes can be made during construction, however, changes should be possible after delivery. The Coast Guard is enthusiastic about the planned AICC and expects to work with this Committee for the betterment of the HEALY.

Department of State - Tom Cocke provided the Department of State presentation. Tom said that the State's Office of Ocean Affairs was now up on the web which includes the Notices to Research Vessel Operators. Jack Bash suggested that this should be linked to the UNOLS Shiptime Request form which will soon be on the web.

Tom explained that clearances continue to be late and are difficult to process. The requirements of the Coastal States for long lead times seems to be the biggest problem. Some countries are sensitive to any changes in the research requirements such as dates or sampling areas. Changes add to the delays. The Council was supportive of Tom's efforts. It was suggested that the electronic ship time request form not only link to the vessel operator notices but that it provide a window that gives the submitting scientist the lead time needed for each of the countries involved in their research. Jack will investigate.

Ship Construction - Dick Pittenger reported that the REVELLE was delivered to Scripps and is in transit to San Diego. The ship will shakedown and be available for operations later this year. The ATLANTIS has been launched and is scheduled for delivery in early 1997. The AII has been sold and ALVIN is in overhaul. The ATLANTIS/ALVIN integration is scheduled for June 1997 (see ***Appendix V***).

Friday, 26 July 1996

Small Vessels of the UNOLS Fleet - Bob Wall led the discussion on the work of a subcommittee looking into the status of vessels in the UNOLS Fleet. Bob chaired the subcommittee which included Tom Royer and Steve Rabalais. The discussion centered around a paper produced by the group on this subject. The results of the discussion follow:

1. UNOLS should remain an association of academically-oriented institutions.
2. UNOLS should expand its mission to include more of the marine science community.
3. UNOLS should continue to base the composition of the Fleet on community projections of the needs of sea-going science.
4. UNOLS should continue to base annual ship operating support levels on the research funded to use the ships.
5. The subcommittee will continue work on developing a generic model for a UNOLS vessel. A model that categorizes UNOLS vessels on the basis of type of usage, size national/regional, significant ownership etc. and that makes categorical distinctions with regard to "requirements" and "treatment".

Request for the REVELLE to Become a UNOLS Vessel - The Council reviewed a Scripps request that the REVELLE become a UNOLS vessel. The Request was unanimously approved.

Request for the URRACA to Become a UNOLS Vessel - The Council reviewed the request from Smithsonian Tropical Research Institute that the URRACA become a UNOLS research vessel. Discussion followed. STRI has a unique location and a place of interesting coastal research. To send a current UNOLS vessel there would require several days of transit. STRI supports the URRACA presently with its own research. The designation as a UNOLS vessel would permit the Facilities side of NSF to support ship time on funded science programs. The Council felt that it was a cost effective way to support coastal science by approving this request. The request was unanimously approved.

UNOLS Committee Appointments - The DESSC presented three persons for candidates to that Committee for approval by the UNOLS Chair. These were: Marv Lilley, University of Washington, new appointment to replace the resigning J. C. Sempere, and Dan Orange and Bob Collier for re-appointment. The Chair approved the recommended Committee appointments.

UNOLS Council Membership - Peter Betzer, Chairman of the Membership Committee presented the following slate for membership to the Council:

Chair:	Ken Johnson
Vice Chair:	Tom Malone and Tom Royer
Member At-Large:	Richard Feely and Clare Reimers
Member Operator Institution:	Eric Firing and Dennis Hansell

No further nominations were offered. The slate will be voted on at the Annual Meeting in September.

UNOLS Review - Don Heinrichs presented a summary of the UNOLS budget for the past three years. He asked the UNOLS Office to prepare a pre-proposal for the next three years and asked that the Council provide their endorsement. This is to be ready for discussion at the next Council meeting in September. Don informed the Council that MMS and DOE have stopped support of UNOLS. Their contributions were modest but not inconsequential. He explained that one or more agencies were not supportive of several elements within the budget. These included the contracts for medical advice and clipping, support for the chairs and the services of a risk manager. The new proposal will go out for peer review and the endorsement of the Council would be necessary.

Arctic Icebreaker Coordinating Committee - This agenda item was covered during the USCG discussion above.

Internet Update - Jack Bash reported that the UNOLS Office was making ever more use of the web. Minutes, Newsletters and Manuals have been posted on the UNOLS homepage (http://www.gso.uri.edu/unols/unols.html). A ship time request form will be active within the next 30 days permitting electronic filing of requests.

Primer/Small Boat Inventory - Jack reported that the long awaited Small Vessel Primer may be underway. Dave Powell has agreed to coordinate the effort. The inventory of small boats is on the web (except for two regions) and can be accessed through OCEANIC (http://www.cms.udel.edu).

Post Cruise Assessment Reports - Peter Betzer has been working with Mike Prince to refine the form for submitting post cruise assessments. Peter said the form should be electronically filed and sent to the respective marine office and the UNOLS Office only. The UNOLS Office would act to oversee the reports and send out an annual summarized report. The effort to complete the form is still in progress.

Method for Assessing UNOLS Fleet Performance - No action was taken on this agenda item.

DoC Fishing Vessel Buyout Program - Jack Bash reported that the Department of Commerce is about to take proposals for fishing vessels volunteering in their buyout program. After 60 days these offers will be evaluated for acceptance into the program. UNOLS has been working with DoC to see if any of these vessels might be appropriate for research institutions. Fifteen research institutions have indicated interest and may get an opportunity to negotiate for a vessel accepted for buyout.

Interim Fleet Improvement Plan - The remainder of the meeting was spent discussing the Fleet Improvement Committee's draft Interim Fleet Improvement Plan. Chris Mooers led the discussion. The draft plan assumed various funding scenarios from very optimistic to very pessimistic. Very optimistic assumed some increased funding while very pessimistic assumed severe cuts in funding. The plan divided the Fleet into four groupings: Global (Class I/II), Regional (Class III), National Coastal (Class IV) and Local Coastal (Class V). It estimated the cost for each of the ship sizes then developed scenarios for numbers of ships for four funding possibilities.

After much discussion it was concluded that the draft plan was a good approach but probably in more detail than necessary. The FIC was tasked to refine, remove recommendations on regional consortiums, and present a more brief discussion of the four scenarios with their corresponding pros and cons.

The FIC was encouraged to work on Mission Requirements for a Pacific Basin vessel. Chris will try to set the next FIC meeting for November 1996 and hold it in Hawaii.

Adjournment - The meeting was adjourned at 1700.

APPENDIX I

NAME	AFFILIATION	PHONE	FAX	INTERNET ADDRESS
Harry Barnes	STRI	(507) 227-5211		stri.tivoli.barnesh@ic.si.edu
John Bash	UNOLS	(401) 874-6825	(401) 874-6486	unols@ gso.uri.edu
Eddie Bernard	NOAA/PMEL	(206) 526-6800	(206) 526-6815	bernard@noaa.pmel.gov
Hugo Bezdek	NOAA/AOML	(305) 361-4300		bezdek@aoml.noaa.gov
Peter Betzer	U of So Florida	(813) 553-3940	(813) 553-3968	prb@marine.usf.edu
Dale Bretschneider	NOAA/PMEL	(206) 526-6813	(206) 526-6815	bret@pmel.noaa.gov
Tom Cocke	Department of State	(202) 647-0240	(202) 647-1106	tcocke@state.gov
Rich Findley	U of Miami	(305) 361-4175	(305) 361-4174	rfindley@rsmas.miami.edu
Dennis Hayes	LDEO	(914) 365-8470	(914) 365-8156	deph@lamont.ldeo.columbia.edu
Don Heinrichs	NSF	(703) 306-1576	(703) 306-0390	dheinric@nsf.gov
Larry Jendro	USCG	(202) 267-1457	(202) 267-4222	l.jendro/g-nrn@cgsmtp.uscg.mil
Ken Johnson	MLML	(408) 755-8657	(408) 753-2826	johnson@mlml.clastate.edu
David Karl	U of Hawaii	(808) 956-8964	(808) 956-5059	dkarl@soest.hawaii.edu
Cindy Lee	SUNY, Stony Brook	(516) 632-8741	(516) 632-8820	cindylee@ccmail.sunysb.edu
Paul Ljunggren	LDEO	(914) 365-8845	(914) 359-6817	marsupt@ldeo.columbia.edu
Sujata Millick	ONR	(703) 696-4530	(703) 696-2007	millics@onrhq.onr.navy.mil
Don Moller	WHOI	(508) 289-2277	(508) 457-2185	dmoller@whoi.edu
Chris Mooers	U of Miami/RSMAS	(305) 361-4825/4088	(305) 361-4797	cmooers@rsmas.miami.edu
Martin Mulhern	NOAA	(301) 713-3435 x142	(301) 713-1541	mmulhern@rdc.noaa.gov
Dick Pittenger	WHOI	(508) 289-2597	(508) 457-2185	rpittenger@whoi.edu
Steve Rabalais	LUMCON	(504) 851-2808	(504) 851-2814	srabalais@coco.lumcon.edu
Tom Royer	U of Alaska	(907) 474-7835	(907) 474-7204	royer@ims.alaska.edu
Alan Thomas	NOAA/OAR	(301) 713-2458	(301) 713-0163	arthomas@noaa.oar.gov
Robert Wall	U of Maine	(207) 581-1435	(207) 581-1426	robert_wall@voyager.umeres.maine.edu

APPENDIX II

UNOLS COUNCIL MEETING

AGENDA

8:30 a.m. - 25-26 July 1996
Conference Room A, Courtyard by Marriott, Orlando Airport
Orlando, FL

Call the Meeting: Ken Johnson, UNOLS Chair, will call the meeting to order at 8:30 a.m. 25 July 1996.

Accept Minutes of February 1996 Council Meeting.

COMMITTEE REPORTS:

Research Vessel Operators' Committee - Paul Ljunggren, Vice-Chair, will report on RVOC activities and plans for the 1996 Annual Meeting.

DEep Submergence Science Committee - Mike Perfit, Chair, will provide a summary of the May DESSC Meeting. This will include a summary of deep submergence operation plans for 1997, ALVIN's overhaul and DESSC's recommendations for operations in 1998 and beyond.

Fleet Improvement Committee - Chris Mooers, Chair, will report on the recent Fleet Improvement Committee meeting and activities in progress. (The Interim Fleet Improvement Plan will be a separate agenda item.)

Ship Scheduling Committee - Don Moller, Chair, will review the 1996 ship schedules and the status of the Fleet's schedule for 1997.

Research Vessel Technical Enhancement Committee - Rich Findley, Chair, will report on the activities of RVTEC and review plans for the 1996 Annual meeting.

AGENCY REPORTS: Reports from agency representatives on funding outlooks and special projects:

NSF (D. Heinrichs)
ONR (S. Millick)
NOAA (CAPT M. Mulhern)
NOAA/OAR
USCG (CDR R. Rooth/L. Jendro)
OON/NAVO (P. Dennis)
DOS (T. Cocke) will provide an update on foreign clearance problems.

UNOLS ISSUES:

1.) **Congressional Funds for a new SWATH** - Ken Johnson will lead a discussion on the UNOLS position with regard to the funds being appropriated for a new SWATH vessel. A policy statement should result.

2.) **Interim Fleet Improvement Plan** - Chris Mooers will provide the Council with a draft Interim Fleet Improvement Plan developed at the ODU FIC meeting in June. Council action will be to complete the IFIP.

3.) **NOAA/UNOLS Cooperation** - Ken Johnson will report on the activities of the committee and sub-committee coordinating NOAA/UNOLS cooperation.

4.) **Small Vessels of the UNOLS Fleet** - Bob Wall will provide sub-committee results investigating the handling of small vessels in the UNOLS Fleet. (Strawman forwarded in advance of meeting.)

5.) **UNOLS Review** - Don Heinrichs will present a summary of support for UNOLS and request a UNOLS budget review.

6.) **Request for REVELLE to become a UNOLS Vessel** - The Council will take action on the Scripps request to make REVELLE a UNOLS vessel. (Request forwarded in advance.)

7.) **Request for URRACA to become a UNOLS Vessel** - The Council will take action on the Smithsonian Tropical Research Institute request to make URRACA a UNOLS vessel. (Request forwarded in advance.)

8.) **Arctic Icebreaker Coordinating Committee** - Ken Johnson and Don Heinrichs will update the Council on the status of the Arctic Icebreaker Coordinating Committee (AICC).

9.) **Internet Update** - Jack Bash will update the Council on the latest developments regarding UNOLS' use of the Internet including development of an electronic ship time form.

10.) **Primer/Small Boat Inventory** - Jack Bash will give an update on the status of the Primer and Small Boat Inventory.

11.) **Post Cruise Assessment Report** - Peter Betzer will report on the development efforts for new Post Cruise Assessment reporting.

12.) **Methods for Assessing UNOLS Fleet Performance** - Ken Johnson will lead a discussion of alternative methods to quantitatively assess performance of the UNOLS Fleet.

13.) **DoC's Fishing Vessel Buy Out Program** - Jack Bash will report on UNOLS involvement in this program.

14.) **Ship Refits/Construction** - NEW HORIZON mid-life refit update - Bob Knox
ATLANTIS and REVELLE construction status - B. Knox and R. Pittenger

15.) **UNOLS Committee Appointments** - Mike Perfit and Chris Mooers will announce appointments for the DESSC and FIC respectively.

16.) **UNOLS Council Membership** - Peter Betzer will report on the Nominating Committee's slate for the positions of Chair, Vice-Chair and two Council members (one Operator Institution and one At-Large).

Calendar for UNOLS Meetings
Meeting Schedule:

MEETING	DATES (1996)	LOCATION
FIC	5-6 February	Stennis Space Ctr., MS
UNOLS Council	8-9 February	Stennis Space Ctr., MS
DESSC	28-29 May	Woods Hole, MA
FIC	20-21 June	Norfolk, VA
Ship Scheduling Meeting & Review	25 June	Arlington, VA
UNOLS Council	25-26 Jul	Orlando, FL
Ship Scheduling Meeting & Review	9-10 Sept	Arlington, VA
UNOLS Council	19 Sept	Arlington, VA
UNOLS Annual	20 Sept	Arlington, VA
RVOC	22-24 Oct	St. Petersburg, FL
RVTEC	11-13 Nov	Fort Pierce, FL
DESSC	14 Dec	San Francisco, CA

Adjournment

APPENDIX III

FIC Report to the Council, 25 and 26 JUL 96

1. The draft IFIP has been prepared for subsequent discussion at this meeting.

2. FIC met on 20 and 21 JUN at Old Dominion University. Highlights included:
   - briefings on emerging autonomous technology by Drs. Tom Curtin (on AUVs) and Bob Bluth (on RPVs), both of ONR; these new technologies will begin to have impact on scientific research in the next several years, and they will extend the capability of R/Vs
   - reports by Eric Firing and Rich Findley on Shipboard Technology Upgrades and the Fleet as Real-Time Data Platforms; substantial conceptual progress is being made
   - point papers by Bob Detrick on MG&G needs and NAVO common interests; more development of this helpful information is needed
   - reports on science program prospects by Bess Ward, Tom Weingartner, and Chris Mooers; the Arctic science planning is the one bright spot
   - homework assignments were made for the 1998 FIP, due in advance of the FIC winter 1997 meeting
   - the early draft IFIP was discussed and downsizing scenarios were formulated and analyzed.

3. FIC accepted the task assigned by the UNOLS Chair to analyze, by early 1997, the scientific mission requirements for a UNOLS vessel to be based in Hawaii.

APPENDIX IV

NSF Strategic Plan
"NSF in a Changing World"

NSF Basic Mission and Purpose:

- "to promote the progress of science: to advance the national health, prosperity, and welfare; to secure the national defense..."
- Emphasis on excellence, merit review, fundamental research,
- Balance among small awards, large awards, facilities, and infrastructure,
- Importance of public investment in science and engineering, and,
- Fairness and stewardship of public funds.

NSF Strategic Plan
Major Themes

Emphasis on:

- Relating research to National Goals,
- Education of workforce and general public, as well as scientists and engineers,
- Integration of research and education,
- Interdisciplinary research,
- Partnerships with universities, other agencies, states and localities, other countries,
- Performance measurement and accountability,
- Increasing diversity, broadening the pool,
- Risk taking in making awards,
- Better service to proposers and the public.

GEO Long-Range Plan (FY1997-2001)

Strategic Goals:

- Advancement of fundamental knowledge about Earth Systems
  - respond to highest quality research opportunities
  - identify opportunities for focused support
- Enhancement of infrastructure for geoscience research
  - Facilities and instruments for large numbers of scientists
  - Partnerships - NSF, other agencies, institutions, international

GEO Long-Range Plan (FY1997-2001)

Strategic Goals (cont...):

- Improvement in quality of education and training
  - Education and training for current geoscientists and students
  - Future generations of geoscientists
  - Knowledge of Earth system by all people

Financial context:

- Budget levels comparable to fiscal years 1995/1996
- Possible reductions in geosciences support by other agencies
- Prioritization

GEO Long-Range Plan (FY1997-2001)

High-Priority Research Activities (OCE)

- Fundamental research supported by standing programs
  - Maintenance/enhancement of base program activities
- Major field and modeling programs for global change research
  - support for planned completion of major international field campaigns
    - » WOCE
    - » JGOFS
  - Modest increases in support for specific program elements
    - » GLOBEC
    - » Earth System History

GEO Long-Range Plan (FY1997-2001)

High-Priority Research Activities cont...(OCE)

- Special emphasis areas
  - Maintain support as needed for the Ocean Drilling Program
  - Increase support for:
    - » Environmental Geochemistry and Biogeochemistry (EGB)
    - » Coastal Ocean Processes (CoOP)
  - Initiate programs in:
    - » RIDGE Ocean-floor observatories
    - » Continental Margins research (MARGINS)
  - Financial context:
    - » Funds from planned phase-downs and reductions in some global change programs and other initiatives used for identified increases.

GEO Long-Range Plan (FY1997-2001)

High Priority Research-Based Education Activities

- Intensify efforts for more effective integration of research and education.
  - Dissemination of research results beyond scholarly journals.
  - Special activities to improve general education in geosciences.
  - Facilitate best education and training for future geoscientists from all segments of the population.
- Innovative activities linking geoscience researchers and educators to advance general and undergraduate geoscience education.
  - Emphasis on opportunities for students and general public to witness and participate in active research efforts.
  - Enhancement of roles of science and technology centers and research consortiums in outreach activities.

GEO Long-Range Plan (FY1997-2001)

High Priority Research-Based Education Activities (cont...)

- Focused programs to increase diversity in the geosciences community
  - Maintain support for REU sites with focus on underrepresented groups.
  - Expand diversity-enhancing activities at science and technology centers.
  - Increase opportunities for underrepresented groups to participate in geoscience research.
  - Continue involvement in MJE program with Universidad Metropolitana of Puerto Rico.
- Financial Context
  - Education activities are component of research activities.

GEO Long-Range Plan (FY1997-2001)

High Priority Infrastructure Investments

- Solid-earth science facilities
  - Increase in share of support for Global Seismic Network (GSN).
  - Maintain other activities e.g. synchrotron X-ray facility, AMS and ion microprobe facilities and UNAVCO global positioning systems.
- Atmospheric facilities
  - Maintain shared-use facilities, equipment, and computers at NCAR.
  - Balance research and facility support for incoherent scatter radar and other facilities.

GEO Long-Range Plan (FY1997-2001)

High Priority Infrastructure Investments (cont...)

- Academic research fleet
  - support operation of academic research fleet ot levels that will enable scientific needs to be met.
  - Upgrade and replacement of vessels may be undertaken in conjunction with possible lay-up of vessels not needed at times.
- Financial context
  - Capital improvements and operations costs combined must stay within budget levels comparable to FY1995/96.

GEO Long-Range Plan (FY1997-2001)

High Priority Activities if Additional funds

- Construction of polar-cap observatory
  - Solar wind observations
- Construction or upgrade of vessels in the academic research fleet
  - All-season access to Arctic Ocean
  - Upgrading ocean drillship
  - Coastal research vessel
- Upgrades/replacement of research aircraft
- Expansion of computational capabilities at NCAR
- Enhancement of international cooperative research programs
  - International Geosphere-Biosphere Programme
  - World Climate Research Programme
  - Next generation Ocean Drilling Program
- Financial context
  - Budget additions beyond Fiscal Years 1995/96 levels

Oceanographic Centers & Facilities

- Staff Change
  * Lisa Rom, Instrumentation and Technical Services (ITS)
    - one year leave. August 1996-August 1997
  * Sandy Shor, ITS Program Director
    - IPA, University of Hawaii, August 1996-August 1997

- Program Addition
  * Interamerican Institute (IAI)
  * Line budget in OCFS ($1.6M)
  * OCE "center" management
  * Global Change Program

- UNOLS Liaisons
  * Unols Council - Don Heinrichs
  * RVOC
  * Ship scheduling — Dolly Dieter
  * DESSC
  * RVTEC - Lisa Rom/Sandy Shor
  * FIC - Richard West
  * AICC - Don Heinrichs

NSF Ocean Sciences Division

Ocean Sciences

- Budget estimate is $193.7 Million
- Increase of $0.9 Million or .5%

	FY 1994	FY 1995	FY 1996
Ocean Sciences Research	$100.0 M	$102.6M	$104.9M
Oceanographic Centers & Facilities	50.3M	50.4M	48.9M
Ocean Drilling Program	38.7M	39.8M	39.9M
	$189.0M	$192.8M	$193.7M

- Major Research Initiatives

	FY 1994	FY 1995	FY 1996
Global Change Programs	$53.7M	$57.7M	$57.6M
Biotechnology	4.0M	3.6M	3.0M
High Performance Computing	0.4M	0.8M	0.8M
Environmental Research	7.3M	7.7M	7.3M
SMETE (EHR)	2.1M	2.9M	3.1M
	$67.5M	$72.7M	$71.8M

• Other Research Activities	$121.5M	$120.6M	$121.9M

(June 1996)

NSF Ocean Sciences Division

	FY 1994	FY 1995	FY 1996
Ocean Sciences Research	$100.0 M	$102.6M	$104.9M
Oceanographic Centers & Facilities	50.3M	50.4M	48.9M
Ocean Drilling Program	38.7M	39.8M	39.9M
	$189.0M	$192.8M	$193.7M

Oceanographic Facilities Detail

Operations			
Ship Operations*	$32.2M	$35.1M	$31.1M
ALVIN, Aircraft, etc.	2.2M	2.1M	2.4M
Marine Techs	4.2M	4.4M	3.8M
	$38.6M	$41.6M	$37.3M
Infrastructure			
Science Instruments	2.5M	1.9M	1.9M
Shipboard Equipment	2.1M	1.1M	1.6M
Ships, Upgrades	2.1M	0.2M	1.5M
UNOLS, Misc.	0.5M	0.5M	0.3M
	$7.2M	$3.7M	$5.3M
Centers and Reserves			
AMS	1.2M	1.0M	1.4M
IAI	1.3M	2.0M	1.9M
Cross Directorate/Reserves	2.0M	2.1M	3.0M
	$4.5M	$5.1M	$6.3M

*Plus $1.6M from ODP (1994), $1.8M (1995), $2.1M (1996)

(June 1996)

NSF Ocean Sciences Division

Facilities Planning (1997-2001)

- Context of geosciences Long-Range Plan
  - Earth Sciences
  - Ocean Sciences
  - Atmospheric Sciences

- Financial Context
  - Budget levels comparable to fiscal years 1995/1996
  - Possible reductions in ocean sciences support by other agencies
  - Prioritization

- Academic Research Fleet planning
  - Support operation of academic research fleet at levels that will enable scientific needs to be met
  - Upgrades and replacements of vessels may be undertaken in conjunction with possible lay-up of vessels not needed at times
  - Capital improvements and operations costs combined must stay within budget levels comparable to FY1995/96

- Priorities if additional funds
  - All-season access to Arctic Ocean
  - Upgrading ocean drillship
  - Coastal research vessel

(June 1996)

HOUSE APPROPRIATIONS SUBCOMMITTEE
NSF FY1997 – DRAFT LANGUAGE

ACADEMIC RESEARCH FLEET

- Concern with possibility of adding new Navy-owned, university-operated, Class I Oceanographic Research vessel to academic fleet.

- No existing academic plan for new vessel at this time.

- Health of oceanography threatened by new ships without corresponding increases in ship operations and research funds.

- Support NSF efforts to work with other agencies to broaden usage of academic fleet.

- NSF to report on impact of possible Class I ship addition – fiscal and otherwise, balance between research and ship operations funding.

⇒ Report to Committee by August 30, 1996

file name: P:\heinrich\over-hds.doc

SENATE APPROPRIATIONS COMMITTEE
NSF FY1997 – DRAFT LANGUAGE

ACADEMIC RESEARCH FLEET

- Ocean sciences heavily dependent on seagoing facilities.
- Present mix of federally-owned, academically-operated ships cost more than funds available for operations.
- NSF to analyze most cost-effective means of operating the academic fleet.
  - Include need for gradual replacement of fleet.
  - Use whatever factors lead to maximum scientific results for the costs.
  - Factors may include benefits of fast, small SWATH research ship.

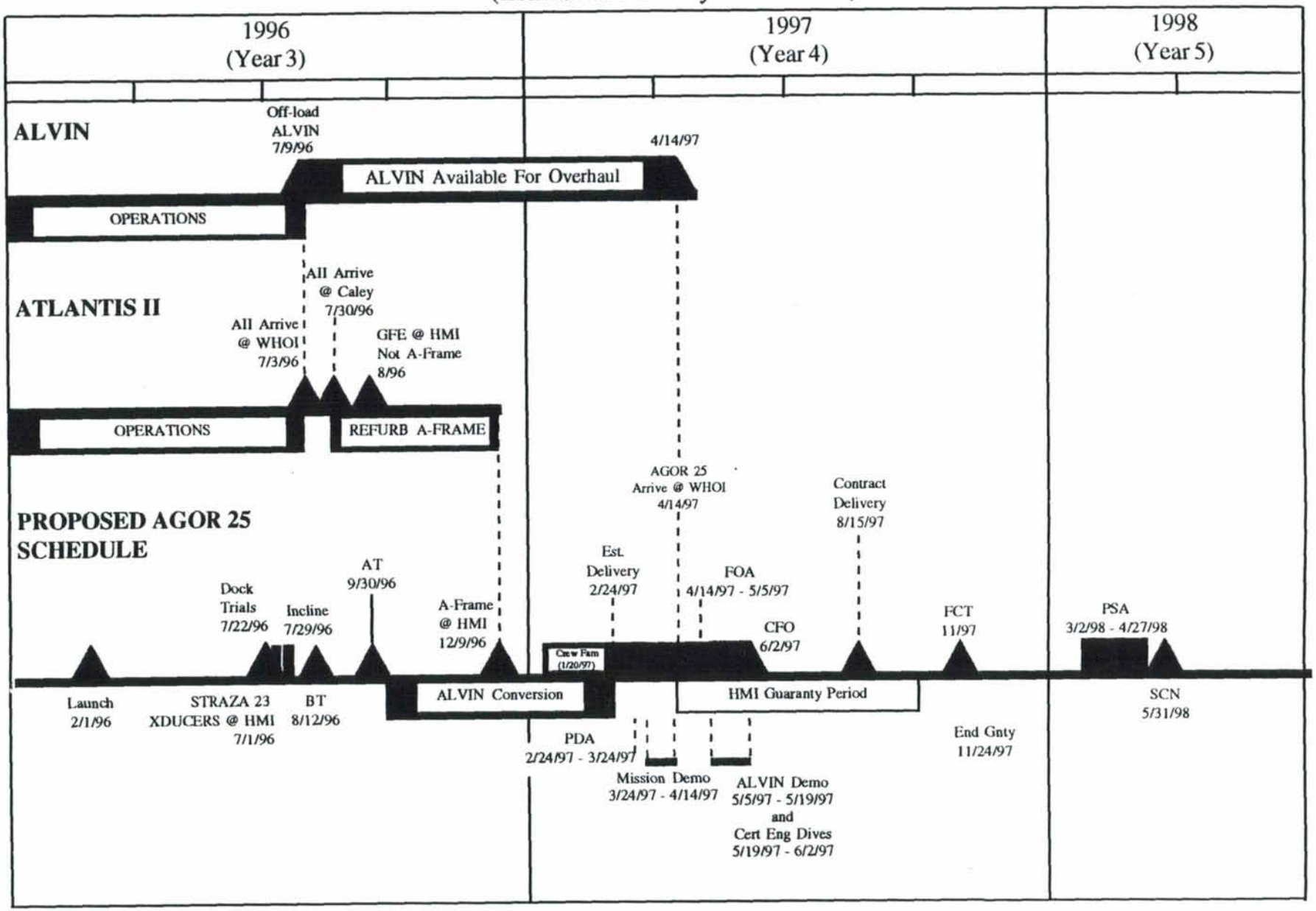
☛ Report to Committee by August 30, 1996

APPENDIX V

16 Jul 96

AGOR 25/ATLANTIS II/ALVIN Schedule

(Estimated Delivery - 24 Feb 97)



▲ - MILESTONES ▲ - TESTS & TRIALS/OPERATIONS ▬ - YARD PERIODS