

**Research Vessel Operator's Committee  
Summary Report  
of the  
1994 Annual Meeting**

**Hosted By**

**Skidaway Institute of Oceanography  
Savannah, GA  
25-27 October 1994**

**Sessions held at the  
Day's Inn**

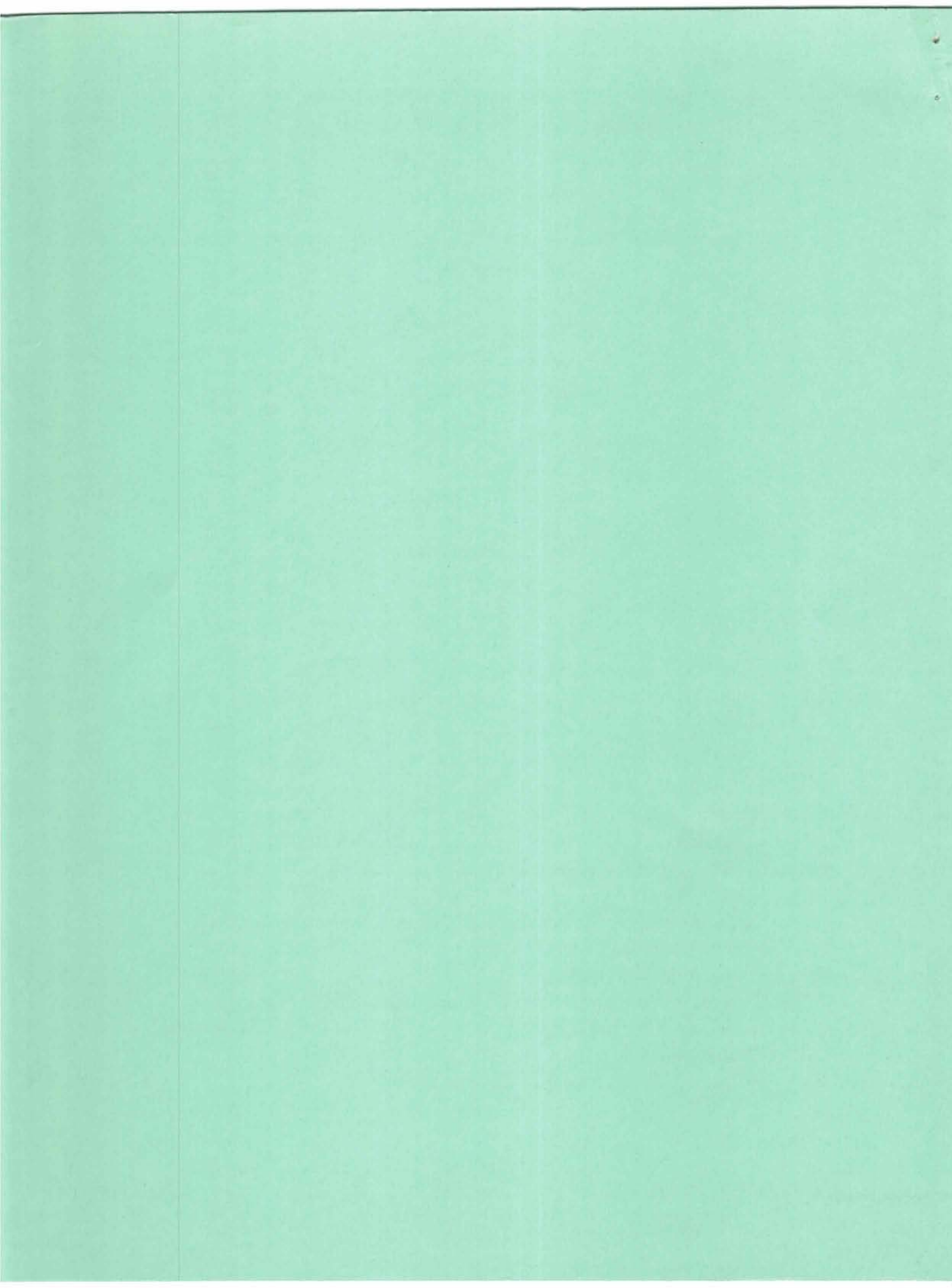
**Contents:**

**Minutes of the 1994 Meeting**

**Appendices**

- I. Agenda**
- II. Attendees**
- III. 1993 Cruise Assessment Summary**
- IV. NOAA Report**
- V. Research Vessel Utilization and Future Planning Workshop**
- VI. Medical Standards Workshop**
- VII. Ship Operations Budget**
- VIII. Control of Pollution and Hazardous Materials Workshop**
- IX. Summary of Scientific Diving Activity from UNOLS Research Vessels in 1993.**
- X. RVOC Chronological List of Meetings**





**Minutes of the 1994 Annual RVOC Meeting  
Skidaway Institute of Oceanography  
Savannah, Georgia  
25-27 October 1994**

**Day's Inn  
Tuesday 26 October 1993**

**Welcoming Remarks**

The meeting was called to order by Chairman Mike Prince, Marine Superintendent of Moss Landing Marine Labs.

Lee Knight, Assistant Director, Services welcomed the RVOC to Savannah, Georgia and introduced Dr. Herbert Windom, Director of Skidaway Institute of Oceanography. Dr. Windom extended welcome on behalf of Skidaway and provided an overview of the institution and the scope of its operations.

**Agenda**

The meeting followed the Agenda outlined in Appendix I. Registered attendees are listed in Appendix II.

**Old Business**

**1993 Meeting Minutes**

A motion was made, seconded and passed to accept the minutes of the 1992 meeting.

**RVOC Newsletter**

The newsletter will continue with 2 or 3 issues per year. Members were encouraged to use this as a forum to provide updates on modifications, refits and new construction. There was some discussion on the possibility of the establishment of an E-Mail bulletin board to replace the RVOC Newsletter.

**Legislative Agenda**

**GPS P-Codes:**

Dolly Dieter and Joe Coburn discussed the status of the GPS P-Code installations. The process for acquisition and installation has been lengthy, with a year of paperwork because they have had to meet the requirements of various federal security agencies. At this point the Knorr and the AII have operating installations. The process for having an operational unit for the R/V Thompson is nearing completion while Scripps has initiated the process. The agreement for acquisition of these units is that they will first be provided to institutions operating Navy owned vessels- WHOI, UW and Scripps. After a period of testing a second phase will begin involving installation on institutions operating NSF owned vessels.

One hurdle yet to be cleared involves the periodic changing of the code. This change can either be triggered by the established changing of the code at a specified time interval or an unscheduled code change directed by Washington. This may require that COMSEC approved safe be carried onboard. Transportation of the code to the vessel similarly presents a problems.

Given the hurdles associated with these installations and the potential time frame before further installations can be made, differential GPS remains a viable option, with comparable navigational accuracy, for vessels operating in coastal areas.

Radio Officer:

This years legislative initiatives on the part of the House and Senate to permit GMDSS equipped vessels to operate without a radio officer has died in conference. Dick Pittenger of WHOI is taking the lead on the issue for UNOLS.

#### **Medical Services Contract**

The UNOLS office went out to bid this past year for a new medical services contract. The contract was awarded to Maritime Health Services (MHS) of Seattle, WA. Linda Williams-Rowe of MHS was introduced with a presentation scheduled by her for later in the meeting.

#### **New Business**

##### **Oil Spill Response Plan**

Two oil spill response plans were made available to serve as examples in assisting other operators in developing their plans. Tom Althouse of Scripps had one for the R/V Melville and Steve Rabalais had one for the R/V Pelican. Operators of vessels over 400 gross tons were reminded that oil spill response plan were due at Coast Guard Headquarters for review by 4 January 1995.

##### **Shipyard Reserve Fund**

This item is a result of the joint letter sent out earlier this year by NSF and ONR addressing shipyard reserve funds. Dolly Dieter discussed this, indicating the letter was undergoing further revision. The problem for the agencies with these funds is the draw down of funds before it is spent.

#### **Committee and Liaison Reports**

##### **UNOLS**

Ken Johnson of MLML, the new UNOLS Chairman, and Jack Bash, UNOLS Secretary, were present.

Jack Bash led off the UNOLS reports discussing the scheduled shutdown of OMNET on 31 December 1994 and the plans to adjust to the loss of the many services which have been available through OMNET over the years. This plan involves use of Internet and OCEANIC at the University of Delaware. Address lists will be maintained by the UNOLS Office for those institutions previously subscribing to the RVOC.OPERATORS and

RVTECH buletin boards. The only bulletin board currently available on OCEANIC is Schedules. The UNOLS Office will post the schedules submitted to them on OCEANIC with a 24 hr. turnaround planned for the posting. Other capabilities available through Oceanic were discussed such as putting User's Manuals, the potential for putting the RVOC Newsletter, and shiptime requests on the system. Finally, Jack noted that assessment reports have been slow in coming in, however, a summary of the assessment reports have been included in the appendices.

Ken Johnson the UNOLS Chair was introduced and expressed his interest in pursuing issues presented by RVOC members. He went on to summarize some the key points for the future, which included-

- Greater coordination among federal agencies.
- Longer term projections of the availability of federal funds
- Insuring stability of crew and safety of science vessels.
- Future efforts to obtain the use of a nuclear submarine in support of research.
- Knorr conversion in support of Deep Submergence Science.

He also addressed changes which had occurred within UNOLS, with new committee chairs for Scheduling, Don Moller; the FIC, Chris Mooers; and newly elected members of the UNOLS Council Bob Knox and Cindy Lee.

#### **Safety Committee**

Tom Smith, Chairman of the Safety Committee reported that the committee was in the process of preparing a change to Safety Manual. He noted that most of the changes were relatively minor.

The committee had been asked to look at the responsibilities of the Chief Scientist. By and large the committee felt that the responsibilities as outlined were clear and the basic problem was that in the manual there were 13 references to Chief Scientist, PI and scientific party. They felt that this needed to be consistent throughout and as such all will be changed to refer to the Chief Scientist.

A draft of the proposed changes is planned for circulation in December with responses sought by January.

#### **RVTECH**

Steve Rabalais reported on the RVTECH meeting which was held in Miami, FL. Topics covered included:

- Data base of Tech's and shared use equipment developed by T. Wilson of SUNY.
- Tech training on salinity measurements.
- How to download satellite imagery.
- CHIRP sonar.
- Design criteria and use of 20 ft. shipping containers as labs.
- Handling of radioisotopes.
- Wire rope.

#### **FIC**

Joe Coburn reported on the activities of the fleet improvement committee. The principle effort of this committee over the last year has been a new fleet report. This report is in the final stages.

Some points of interest that were raised involve:

- The ARV and scientific mission requirements when taken in context with Coast Guard icebreaker and available levels of funding.
- Coastal vessel science mission requirements continue to be developed for publishing.
- An ad hoc committee has been established consisting of two members of FIC and two members of DESC to address design/conversion of the Knorr. A preliminary design was due for circulation shortly with conversion scheduled for Feb.-May 96.
- Stability of ship's crew was an issue with regards to safety and effectiveness to support science mission

Some discussion followed on the issue of crew stability which indicated that operators did not see this as a problem nor have they seen any indication of this being a problem.

### **Agency Reports**

#### **NSF**

Dolly Dieter reported for NSF indicating that she was anticipating level funding for ship operations despite the fact that a 14% increase had been requested in this years funding. There is, however, no budget for 1995 even though they are in FY 95 and they do plan to begin negotiating proposals. For FY 94, Ship Operations had \$33mil with \$.5 mil coming from OPP and \$1.6 mil coming from ODP for a total of \$35.1 mil. Dolly was anticipating a budget of \$35-36 mil for 95. Proposals that had been submitted for 95 total \$41.2 mil for an anticipated shortfall of \$5-6 mil. Upon review of the budgets an area of concern within NSF was shoreside costs.

Dolly requested that despite the increasing number of institutions with their ship's users manual on OCEANIC, she still requested that she receive an updated copy of these manuals.

Finally, she reported on the International Ship Operators Meeting which was in Halifax, Nova Scotia. The meeting, which originally had a one day format, will be expanded to 3 days. Among the topics discussed were:

- Standardizing shipboard vans.
- Standardizing wire and winches and use of Lloyd's safety criteria for wire.
- Insurance.
- All in attendance were dealing with a lack of funding.
- Ship time and technician exchanges.

#### **ONR**

Keith Kaulum retired in August of this year. Annette DeSilva will be filling in for the next 6 months, along with Pat Dennis. Announcement of the position vacancy is being prepared and will be circulated to all UNOLS institutions.

Annette reported on organizational changes which had been going on for the last year within the Science and Technology programs at ONR. In addition, she reviewed the projected \$200 mil budget cut for DOD. While the details of the cut are as yet unknown the Navy portion was anticipated to be roughly \$10 mil.

#### **Oceanographer of the Navy**

Pat Dennis from the Oceanographer's office was unable to attend. Annette DeSilva presented the update of oceanographic ship status in Pat's absence.

To date, 11 Oceanographic ships are funded( 3 AGOR's, 8 TAGS).With 3 new ship's being operational.

At present there are 3 ships under construction TAGS 60 Pathfinder due for delivery in Nov 94 and the TAGS 61 Sumner and TAGS 62 Bowditch due for delivery in 1995. One new ship, the TAGS 63, was recently awarded to HMI for construction.

Two ships were recently deactivated, the TAGS 40 Tanner and the TAGS 39 Maury.

The final (new) oceanographic fleet is expected, when completed, to consist of 8 TAGS ships (2 TAGS 51 class, 6 TAGS 60 class) and 3 AGOR 23 class ships.

#### **NOAA**

Captain Martin Mulhern was unable to attend. A summary of his planned comments is contained in appendices.

#### **U. S. Coast Guard**

Lcdr. Steve Wheeler represented the Coast Guard. He reviewed the fact that the Polar Sea and Polar Star had been upgraded for high latitude research and described some of the personnel changes in the Ice Operations Branch where Captain Summi has relieved Captain Walker.

He then went on to summarize the summer's joint expedition by the Polar Sea and Canadian Icebreaker Louis St. Laurant to the North Pole. He noted that the Polar Sea carried 30 scientists of 17 disciplines. The Polar Sea did lose a blade of one of the controllable pitch propeller's and ended up completing the mission by coming out of the ice on the East Coast, then returning to Seattle via the Panama Canal. Based on the reports his office had received, the cruise was highly successful.

On the new icebreaker Healey, under construction at Avondale Shipyard, he did indicate that the design freeze of 1 October was met. The Coast Guard recently received a letter from the Navy saying the construction of the Healey would be set back 9 months. There has yet to be a response by the Coast Guard to this. With this delay however the Coast Guard is now anticipating a summer '98 delivery of the ship. He did confirm that the ship was to be bi-polar capable. This sea keeping capability is one of the reasons for the hull form.

He expressed some concern about future levels of funding for icebreaker operations with ongoing budget cuts.

#### **State Department**

Tom Cocke reported for the State Department. He noted some changes in clearance procedures, with France not accepting requests for clearances which do not meet their 4 months notice for clearance requests and the Foreign and Commonwealth Office in London deciding we should not send clearance requests direct to Hamilton, Bermuda because you now have to met their requirement for providing 3 months notice. He noted that the number of late requests for clearances continues to drop, however many governments cannot deal with late requests and in particular changes that are made in these requests at late dates. He understands that most coastal states requiring 6 months notice need to be prepared for changes however some coastal states cannot deal with this. He did note that there are some countries like Mexico in which 8 or 9 agencies have to review the clearance and issue a permit. Tom indicated it would be most effective for the operators to insure that all the information gets in and goes through formal channels. While in all cases it is not required that clearances go through official channels, it is recommended and some countries do require it.

#### **Noon-Lunch**

#### **Special Reports**

##### **Skidaway Institute of Oceanography**

An evening tour of the facility was scheduled.

##### **Institute of Ocean Sciences**

Dale Gibb provided the report reviewing recent vessel operations including the Icebreaker Louis St. Laurant, which was the first Canadian vessel to make it to the North Pole and the R/V John Tully having completed the P15N line for WOCE.

He discussed the fact that continued funding cutbacks of 13% per year over the last few years had reduced effectiveness by almost 50%. He indicated that there was a major effort underway for greater inter-departmental cooperation in use of vessels for shipboard operations. He also noted that there were major reviews formally looking at integrating the Coast Guard and Fisheries vessels.

Other items he commented on were:

- Recent Fraser or Adams River Salmon loss requires their efforts.
- Ongoing vessel modifications.
- Greater emphasis on inshore and near shore research.

##### **Natural Environment Research Council**

Ken Robertson reported that for the 95-96 year their three vessels, the Discovery, Darwin and Challenger, had been funded at levels of 39%, 47% and 100% respectively. This level of funding will result in single crewing on the Discovery and Challenger.



He indicated they are discussing with the Netherlands the possibility of sharing ships. The Netherlands is considering a new ship, but they are investigating the use of the Discovery on a 50/50 basis.

NERC recently went through a market testing process. While analogies were made between market testing and privatization, it is in fact defined differently. If they were going to privatize the operation they would have sold their ships. In this case of market testing, NERC retains title and went out with a specification for management of the operation. NERC itself put together a management team to bid on the specification and their team did in fact win the competition for the 3 year contract. This contract can be extended for an additional 2 years, but after 5 years it must be rebid.

With regards to ISO 9002, he noted that their efforts toward compliance were still underway. They had intended to have the process completed by now, however, the market testing program had slowed their progress.

Finally, he reported on the experience of chartering a Russian research vessel with submersible. The vessel and submersible were chartered for 5 weeks and the cruise was considered to be highly successful. The research involved dives around hydrothermal vents.

As a final item he noted the information on their vessels, sailing instruction, and daily reports are available on Worldwide Web.

#### **Mexican Representative**

No Mexican representative was in attendance.

#### **Instituto de Fomento Pesquero (Chile)**

Enrique Aranda, JEFE Divison Operaciones Marinas, of Valparaiso, Chile reported providing an overview of their operation. They operate two vessels one of 43m and one of 28.5m length. These vessels are based out of Valparaiso and Punta Arenas. They primarily focus on fisheries research and the effects of El Nino. He noted that while the economy in Chile is good, he is experiencing funding problems similar to that being described by other attendees.

#### **SACLANT Undersea Research Center- R/V Alliance**

Chris Gobey reported on the SACLANT Undersea Research Center and the R/V Alliance.

The research center was established approximately 30 years ago to conduct ocean acoustics and oceanography as it applied to anti submarine and submarine operations.

About 7 years ago the NATO nations decided to build a new silent research vessel. The product was the R/V Alliance. Alliance is a vessel owned by the NATO nations, flying the German flag, with a crew of mixed nationalities. The ship was built in Italy and is classed by ABS. The Alliance was built as a silent ship e.g. sound damping tiles, elastic support piping, acoustic enclosures, etc. and specializes in ocean acoustics. The vessel has no military role. Their 1994 operating schedule calls for 232 days at sea with a budget of \$4.1 mil. A description of the vessel is in the appendices.

### **Scripps- R/V Roger Revelle**

Tom Althouse reported on the progress in construction of the Revelle. The Revelle is to be launched on 25 February 1995. Based on lessons learned in the construction of Thompson there are currently 30 changes to the construction specifications of the Revelle. These changes include:

- Changing the fixed fire suppression system from Halon to CO2.
- Will be GMDSS compliant in accordance with federal regulations while also having to retain the old radio telegraph station.
- Salt water piping system will be copper nickel rather than black iron.
- Traction winch will be installed in lieu of the Thompson's winch.
- Four staterooms will be added on the O-3 level instead of berthing vans. Total science party the vessel can carry will be 50.
- Multibeam is to be recessed in the hull.

Delivery of the Revelle is scheduled for spring to June 1996 and the ship should begin to operate in support of science in the fall of 96.

### **AGOR 25**

Joe Coburn reported that the delivery of the AGOR 25 was scheduled for June of 97.

### **Z-Drive Gear Problem**

Tom Althouse and Robert Hinton provided reports on the MELVILLE and THOMPSON.

With regards to the gear failure on the MELVILLE, LIPS has stated the MELVILLE's gears did not meet specifications due to irregular case structure and material composition.

No conclusion was ever reached regarding the failure of the gears on the THOMPSON. There were several conjectures, but none of them seemed to make much sense. The replacement gears have an extended warranty to the summer of '96, and before it expires, the intent is to dock the ship and inspect them one more time. Hopefully, a conclusive wear pattern will be seen and this problem will be put to rest. At this time, no additional testing is being done on the old gears, and the ship seems to be running well with no sign of damage in the oil samples that continue to be monitored.

### **Smithsonian Tropical Research Institute**

Harry Barnes presented an overview of the Institute's operations. He noted that the institute has several marine research stations with 3 on the Atlantic side and 1 on the Pacific side. The institute has recently acquired a new research vessel the R/V Morning Watch.

## **Medical Health Service (MHS)**

Linda Rowe-Williams represented MHS, the medical service providing 24 hour advice to UNOLS vessels for accidents and illness on board UNOLS vessels. Key points in her discussion were:

- MHS offers a 3 day course in providing medical treatment called SAVE A Life AT SEA (SALTS).
- The pharmaceutical list with crossover inventory numbers from the previous health care service.
- Physical/Medical history forms
- Inoculations. She noted that the major discrepancy here is tetanus.
- Medical protocols.

## **RSMAS- R/V Columbus Iselin**

Blair Bookout discussed the grounding of the Columbus Iselin in the Florida Keys and the problems with salvage contracts and oil spill response contracts.

The grounding occurred on 10 August at high tide. Members of the scientific party were debarked safely. Because of the potential oil spill MSRC was called in, but never deployed their equipment. At 1225 on 12 August the Iselin was refloated and taken to Key West, FL where some damage control measures were undertaken and the vessel then sailed for a Jacksonville shipyard. The grounding resulted in a penetration of the ship's holding tank and eventual flooding of the below deck quarters with sewage. On arrival at the yard, these quarters had to be stripped and sanitized. The Iselin did have hull insurance and at this point specifications are being prepared which will be reviewed by the insurance surveyor. A final decision has yet to be made as to whether the Islein will be repaired.

## **Insurance and Liability**

Dennis Nixon reported on these issues. Dennis reviewed the world marine insurance market. He went on to review the costs of P&I coverage for the vessels of the UNOLS fleet in 1994 with a retrospective analysis of fleet costs for the last few years which showed a decrease in the percentage of federal operating costs being used to pay for P&I insurance.

He then reviewed the decisions in several recent court cases, including:

- The SS Central America and the ongoing litigation surrounding the salvage of the gold on board.
- Exxon Valdez and the associated punitive damages in which he pointed out the punitive damages are not covered under P&I insurance.
- URI case involving the responsibilities of the Chief Scientist.
- Mitola vs. John Hopkins which was largely noteworthy because the plaintiff lost on all counts.
- Mitchell vs. the Trawler Racer on the doctrine of seaworthiness in which a vessel maybe unseaworthy for just an instant in time. In this case a seaman slipped on a rail when debarking the vessel.

## **Tour of Skidaway Marine Center- Low Country Boil**

Wednesday, 27 October 1994

**Administrative Business and Wrap Up of Tuesday Reports**

**NOAA Ship Discoverer - Shark Attack**

Jack Bash provided a review of the circumstances relating to the shark attack which occurred during a swim call off the vessel 250 miles from Easter Island in which a member of the scientific party lost her leg. He noted the efforts of individual crew members which stabilized the patients condition and ultimately the team effort by various federal agencies resulting in a successful medical evacuation .

Dennis Nixon followed with some further comments on the appropriateness of swim calls noting that it was a voluntary recreational activity. He also pointed out that while a check list is required for diving, it is not required for swimming, but if you are going to have a swim call you should have a checklist. A question and answer period followed relating to topics Dennis had brought up in his presentation of the previous day.

**Workshops of R/V Management  
(Four Concurrent Workshop)**

**Lunch**

**Research Vessel Utilization and Future Planning Workshop**

Mike Prince reported out from this workshop. A summary of the workshop is contained in the appendices. Key points addressed during the workshop were:

- Impact of lost days and schedule changes in the daily rate.
- Comparison of our rate structure with that of commercial vessels, for the purpose of being able to compete on an equal footing for operating money from other than government sources.
- Presently for many vessels the days preceding and succeeding a cruise are in support of that cruise, yet they are unable to account for them. The committee felt a mechanism needed to be developed to account for this time.

**Physical Standards and Examinations Workshop**

Bill Coste reported out from this workshop. A summary of the workshop is contained in the appendices.

Three agenda items were discussed relating to crew medical standards, scientist and technician medical standards, and changes in medical procedures brought about by the new contract with MHS. The following recommendations were made:

- A UNOLS Medical standard be established along the lines of the Safety Standards and would form the basis for physical requirements.
- Minimum standards for scientists and technicians should be investigated.

-MHS Medical History forms are to be used with crew member forms forwarded to MHS and science and technician forms carried in a secure location on board the vessel.

-Ships operating in isolated areas where communications maybe a problem should make test calls to MHS.

-Operators are reminded of the requirement to carry alcohol and drug test kits aboard ship to be used in the event of an accident or emergency.

-Investigate the use of a Health Statement Form to be signed by crew members leaving a vessel.

#### **Ship Operating Budget Workshop**

Paul Ljunggren reported out from this workshop. A summary of the workshop is contained in the appendices.

The key points to come out of this discussion were:

- RVOC recognizes the budgetary stresses being experienced by the federal agencies and is committed to supporting the sponsor agencies.

- Institutions can be expected to provide more detailed explanations of costs.

- Norms need to be identified in budget preparation which would provide greater uniformity as far as the assignment of projected costs to budget categories. At present, what one institution assigns to Shore Support line another institution may interpret as being appropriate to the Miscellaneous line.

-There are intangible benefits associated with performing research on a UNOLS vessels. These benefits need to be identified in a formal fashion.

#### **Control of Pollution and Hazardous Materials Workshop**

Steve Rabalais reported for the group. A generic oil spill contingency plan had been prepared and submitted to the group. The group noted that the final rule requiring the plan had several changes with regards to the required contents of the plan. Of particular significance is a 4 January 1995 date for submission of your plan to the Coast Guard. Group participants recommended that a requirement be established within the RVSS for all UNOLS vessels to have oil spill contingency plans.

Other topics discussed included new regulations for disposal of shipboard garbage and the safe storage and handling of hazardous scientific substances brought on research vessels.

#### **AAUS-Diving**

Mike Lang provided a summary of diving activities from UNOLS vessels in 1993; noting that four institutions are not members of AAUS. In addition he pointed out that many institutions have failed to report their diving activity. UNOLS and RVOC need to determine if the collection and dissemination of diving statistics is needed and what the method should be.

## **Seminar on Safety Equipment and Procedures**

Sandy Schwaab of Jamestown Marine Services made a presentation on new shipboard safety and fire fighting equipment.

Sandy began his a seminar with a brief discussion on OSHA noting that when it comes to seamen, the Coast Guard is the dominant agency. When, however, your personnel are with your ship in the shipyard, OSHA rules on personnel protective devices apply.

He also reviewed some regulatory changes or pending changes. A key point was the creation of a Subchapter under Title 46 of the Code of Federal Regulations dealing with radios and survival craft.

He reviewed new safety related devices on the market, including:

- SOLAS compliant inflatable PFD's.
- Hybrid PFD's.
- Water-jel fire blankets.
- The Pyrolex firefinder which is a device to find the seat of a fire.
- Gard 1, a one piece fire turnout suit.
- ELCART vari-nozzles for fire fighting.
- The 3 minute SEED, an escape breathing device.

Finally, he touched upon the fact that halon was no longer being produced. The National Fire Protection Association has identified 8 chemicals to replace halon, however, none have Coast Guard approval. For ship's with halon systems, the system is good until it is discharged, then it cannot be refilled.

**Thursday, 28 October 1994**  
**Day's Inn**

## **Round Table Discussion**

The Marine Superintendents or their equivalents from the member and guest organizations met to discuss issues of mutual concern. A summary of the topics discussed follows:

- OPA 90
- ADA
- Physicals and HIV positive employees
- Responsibility of Chief Scientist
- Types of medical services included under Jones Act or medical coverage.
- Sick Leave and Light Duty Policies
- Sexual harrassment
- Charging of canceled ship days, loading/unloading days, and inport days caused by science party personnel/equipment problems
- Replacement of equipment in kind; equipment or maintenance?
- ECDIS
- Electronic mail
- Scientist /captains evaluations, NSF ship inspections

**Lunch**

## Round Table Continued

### Business Meeting

Mike Prince of Moss Landing was re-elected as Chairman of RVOC And Paul Ljunggren of Lamont Doherty was re-elected as Vice Chairman.

It was confirmed that Scripps Institute of Oceanography will host the 1995 RVOC Meeting with dates being 24-26 October. The location for the 1996 RVOC meeting was voted on and Florida Institute of Oceanography/ University of South Florida was chosen to host the meeting.

The format for next years meeting was discussed and it was agreed to continue with workshops, however, because of the broad level of interest expressed in the workshop topics it was determined that next year RVOC attendees would have an opportunity to participate in two workshops.

The members of the Safety Committee were confirmed with Tom Smith as Chairman. Other members of the committee are Joe Coburn, Bill Hahn, Ken Palfrey, Tim Askew, and Gene Almendinger. The Safety Committee had held a morning meeting on the preceding morning at which they had discussed:

- Changes to the Safety Manual.
- Differences in the stability of a SWATH.
- SARTS; no guidance current is available from the Coast Guard.
- Explosives and the need to identify institutions still using them.
- Oil Spill Plan; the committee feels this is a separate issue not to be dealt with in the safety manual.

The following action items pend:

- White Paper or article on the benefits of the UNOLS fleet( Jack Bash).
- Input is to be provided on the design criteria for containerized labs. RVTECH is preparing some recommendations and RVOC will comment and provide additional recommendations.
- Request that UNOLS reconstitute the ad hoc committee on the responsibilities of the Chief Scientist(Mike Prince). (Joe Coburn of WHOI and Lee Black of BBS volunteered to serve on committee)
- Request that UNOLS council define the intended purpose of the Captain and Chief Scientist Post Cruise Evaluations ( Mike Prince).
- Medical work group will form a committee to work with MHS to develop a set of standards for UNOLS operators for use as guidelines in writing job descriptions so that medical examinations are useful. Also develop standards for medical screening of scientists( Bill Coste).
- Safety standards review( Tom Smith).

- Review of operating days and inport days in an attempt to arrive at better definitions of days provided in support of science inport and at sea ( Mike Prince).

Topics recommended for next years agenda included:

- E-mail
- ISO 9000 Standards
- Sexual harrassment
- GMDSS equipment requirements and maintenance
- Automatic inventory control and preventive maintenance systems
- Contracting for a common oil spill cleanup contractor

With recommendations for a presentation on:

- MOSAIC
- ISO 9000
- Sexual harrassment/diversity
- ECDIS demonstration

#### **Adjournment**

The RVOC expressed its thanks to Lee Knight, Dr. Herbert Windom , and Skidaway Institute of Oceanography's staff for hosting this year's meeting.



## Appendix 1

# 1994 RVOC Meeting Agenda

0830 Tuesday, 25 October 1994

## 0800 REGISTRATION AND COFFEE

Bring spouses to meet one another and plan their activities.

## 0830 WELCOMING REMARKS

- Lee Knight, Skidaway Institute of Oceanography
- Dr. Herbert Windom, Director, Skidaway Institute of Oceanography
- Mike Prince, Chairman, RVOC

## 0900 OLD BUSINESS

- Minutes of the 1993 Meeting - Mike Prince
- RVOC Newsletter - Paul Ljunggren
- Legislative agenda, GPS P-Codes and Radio Officers  
Joe Coburn, Dolly Dieter, Paul Ljunggren
- Medical Service contract

## 0930 NEW BUSINESS

- Oil spill response plans
- Shipyard reserve funds

## 1000 COMMITTEE AND LIASON REPORTS

- UNOLS, Jack Bash & UNOLS Chair, Dr. Ken Johnson (MLML)
- Safety Committee, Tom Smith
- RVTECH, Steve Rabalais
- FIC, Joe Coburn

## 1100 AGENCY REPORTS

- National Science Foundation - Dolly Dieter
- Office of Naval Research - Annette DeSilva
- NOAA - Capt. Martin Mulhern
- USCG - LCDR Bob Garrett
- U.S. State Department - Tom Cocke
- Others

## 1200 LUNCH

October 21, 1994

# 1994 RVOC Meeting Agenda

0830 Tuesday, 25 October 1994  
(continued)

## 1300 SPECIAL REPORTS

- Skidaway Institute of Oceanography
- NERC - Ken Robertson
- Institute of Ocean Sciences - Dale Gibb
- Bedford Inst. of Ocean. - James Wheelhouse
- Mexican Representatives
- R/V ALLIANCE - NATO R/V operations - Chris Gobey
- OCEANUS Class Mid-Life/Admeasurement- Bill Hahn/Joe Coburn/Ken Palfrey
- REVELLE (AGOR 24) - Tom Althouse
- AGOR 25 & Knorr conversion - Joe Coburn
- Z-Drive gear problems - Tom Althouse, Robert Hinton, Joe Coburn
- Arctic Research Vessel - Jack Bash (Video)
- COLUMBUS ISELIN - Ron Hutchinson
- Any other operators with special reports

## 1500 MARITIME HEALTH SERVICES

- Introduction of Maritime Health Services by Linda Williams-Rowe.  
Update on service provided to UNOLS vessels, advantages of using a physician consultation service and an Overview of Maritime Health Services.

## 1600 INSURANCE AND LIABILITY

- Report by Dennis Nixon on liability and insurance issues.

## LOW COUNTRY BOIL AT MARINE CENTER - TOUR OF FACILITIES

# 1994 RVOC Meeting Agenda

0800 Wednesday, 26 October 1994

## 0800 ADMINISTRATIVE BUSINESS AND WRAPUP OF TUESDAY'S AGENDA

## 0830 WORKSHOPS ON R/V MANAGEMENT (Concurrent Workshops)

Workshop groups will be formed prior to the meeting and the final agenda for their discussions will be determined by the members of each group. The subjects below are only suggestions.

### Control of Pollution and Hazardous Materials Workshop:

- Oil Spill Response plan - generic version for vessels
- Changes to Safety Standards for Hazardous materials
- Other OPA 90 issues
- MARPOL issues

### Operating Budget workshop.

- Go through proposal budget line by line w/discussion of methods for estimating and planning each budget item
- Identify problem budget areas and identify possible methods for savings or greater efficiency.
- Shipyard Reserve (Major Overhaul Stabilization Accounts - MOSA)
- Maintenance and Overhaul planning
- How to plan a mid-life or other major overhaul

### Research Vessel Utilization and Future Planning workshop

- Consider the definition of operating days, maintenance days and at sea days and determine if improvements can be made in the methods for tracking vessel utilization
- Consider the UNOLS Fleet Improvement Plan, the Coastal Marine Science Workshop report and the Ocean Sciences Strategic Plan for Research and Education (OSSPRE) and identify the ramifications for Research Vessel Operators.
- Consider better methods of evaluating Research Vessel performance and condition such that UNOLS vessels can be compared with each other and against other research vessels.
- Consider the impact on the UNOLS fleet of the privatization issue. Discuss the benefits of University operated research vessels.

### Physical Standards and Examinations

- Effect of Americans with Disability Act on maritime employers.
- Job Descriptions/analysis/physical standards.
- Drug testing and physical exams

## 1200 LUNCH

## 1300 REPORTS FROM WORKSHOPS (Brief report with follow up during round table) (15 Mins each)

## 1400 SEMINAR ON SAFETY EQUIPMENT AND PROCEDURES

- Sandy Schwaab of Jamestown Marine Services will make a presentation on new shipboard safety and firefighting equipment.
- Discussion on the standard use of equipment and safety procedures

October 21, 1994

# 1994 RVOC Meeting Agenda

0800 Thursday, 27 October 1994

0800 SAFETY COMMITTEE REPORT ON UPDATE TO SAFETY STANDARDS

0830 AAUS - MICHAEL LANG, R/V DIVING STATISTICS

0900 ROUND TABLE DISCUSSION

- Marine Superintendents will select and discuss topics of mutual interest.

Some items already suggested:

- OPA 90
- ADA
- Physicals and HIV positive employees
- Responsibility of Chief Scientist
- Types of medical services included under Jones act or medical coverage
- Sick Leave policies, "Light Duty" policies
- Sexual harassment policies
- Charging for Cancelled shipdays, loading/unloading days, and inport days caused by Science party personnel/equipment problems
- Contracting with outside users
- Replacement of equipment in kind; equipment or maintenance?
- Travel policies for crew
- Pollution and Hazardous Materials matters
- MHS contract
- Automation/Alarm systems
- GMDSS equipment
- Bridge electronic equipment/ECDIS
- Electronic Mail/OMNET
- Scientist/Captains evaluations, NSF Inspections
- Reports by operators of equipment purchases or planned purchases

1200 LUNCH

1300 CONTINUE ROUNDTABLE

1400 BUSINESS MEETING

- Election of Chairman and Vice Chairman, come prepared with nominations
- Assignments to committees, panels and workgroups
- Review of action items pending
- Suggestions for the 1995 Agenda and meeting format, everybody should come to meeting with one idea, preferably in writing.  
(PLEASE REFER TO WORKSHEET ATTACHED)
- Confirm Scripps as host for 1995 meeting and vote on host for 1996 meeting. Come prepared to volunteer.

1500 ADJOURN

October 21, 1994

# 1994 RVOC Meeting Agenda

## RVOC 94 Workshop Assignments

### Pollution/Oil Spill Response

Steve Rabalais  
Bill Clark  
Don Hoffer  
Blair Bookout  
Tim Askew

---

### Budget

---

Paul Ljunggren  
Ken Palfrey  
Tom Althouse  
Quentin Lewis  
Lee Knight  
Barbara Martineau  
Bruce Cornwall

---

### Ship Use

---

Mike Prince  
Bill Hahn  
Linda Goad  
Tim Pfeiffer  
Tom Smith  
Bill Keefe

---

### Medical Standards

---

Bill Coste  
Joe Coburn  
Lee Black  
Robert Hinton  
Dean Letzring

October 21, 1994

# 1994 RVOC Meeting Agenda

## NEXT YEAR'S RVOC MEETING

Please use this form before and during the meeting to record any suggestions you may have for next years meeting.

Suggestions for agenda items, workshops or guest speakers

Suggestions for changes or improvements to the meeting format or schedule

## **Appendix 2**



1994 RVOC  
MEETING ATENDEES

Mike Prince  
MLML  
P.O. Box 450  
Moss Landing, CA 95039

Phone: 408-633-3534  
Fax: 408-633-4580  
Email: PRINCE@MLML.CALSTATE.EDU

Paul Ljunggren  
Lamont-Doherty Eart Observatory  
Route 9W, Box 1000  
Palisades, NY 10964

Phone: 914-365-8845  
Fax: 914-359-6817  
Email: marsupt@ldeo.columbia.edu

Lee Knight  
Skidaway Institute of Oceanography  
10 Ocean Science Circle  
Savannah, GA 31411

Phone: 912-598-2486  
Fax: 912-598-2310  
Email: knight@skio.peachnet.edu

David Powell  
University of Miami  
4600 Rickerbacker Causeway  
Miami, Florida

Phone: 305-361-4832  
Fax: 305-361-0546  
Email:

Blair E. Bookout  
University of Miami  
4600 Rickenbacker Causeway  
Miami, Florida

Phone: 305-361-4880

Robert Hinton  
University of Washington  
WB-10  
Seattle, WA 98195

Phone: 206-543-5062  
fax: 206-543-6073  
Email: hinton@ocean.washington.edu

Linda Goad  
University of Michigan  
2200 Bonisteel Blvd.  
Ann Arbor, MI 48109-2099

Phone: 313-763-5393  
fax: 313-747-2745  
Email: Lgoad or linda.m.goad@umich.edu

Tim Askew  
Harbor Branch Oceanographic Inst.  
5600 U.S. 1 North  
Ft. Pierce, FL 34946

Phone: 407-465-2400  
fax: 407-465-2446  
Email: HBOI.SHIPS  
(until Dec 31, 1994)

Quentin M. Lewis, Jr.  
Duke University Marine Laboratory  
135 Duke Marine Lab Road  
Beaufort, NC 28516

Phone: 919-728-2111 ext 274  
fax: 919-728-2158  
Email: QUENTINL@DUNCOC.DUKE.ML.EDU

J. Willard Moore  
Bermuda Bio. Station for Research  
Ferry Reach Road  
St. George, Bermuda

Phone: 809-297-1880 station  
809-297-1616 office  
fax:  
Email:

Dennis Nixon  
UNOLS  
University of Rhode Island  
Narragansett, RI

Phone: 401-792-2147  
fax: 401-792-2156  
Email:

Harry Barnes  
Smithsonian Tropical Research Institute  
UNIT 0948  
APO AA 34002-0948

Phone: 507-275211  
507-276022  
507-27326274

Lee Black  
Bermuda Biological Station for Research  
Ferry Reach Road  
St. Georges, Bermuda

Phone: 809-297-1880  
fax: 809-297-8143  
Email: l.black@bbsr.edu

Tom Cocke  
U. S. Depart. of State  
OES/OA, Rm 5801  
Washington, DC 20520

Phone: 202-647-0240  
fax: 202-647-1106  
Email: tcocke@state.gov

Carl (Sandy) Schwaab  
Jamestown Marine Services  
24 Southwest Ave Suite 4  
Jamestown, RI 02832

Phone: 401-423-3144  
fax: 401-423-3167  
Home phone: 401-364-1004

Dean E. Letzring  
Texas A&M University  
Marine Operations  
P.O. Box 1675  
Galveston, TX 77553

Phone: 409-740-4469  
fax: 409-740-4456  
Email:

Eugene L. Olson  
Florida Institute of Oceanography  
830 1st Street South  
St. Petersburg, FL 33701

Phone: 813-893-9100  
fac: 813-893-9109

William B. Clark  
University of Hawaii Marine Center  
#1 Sand Island Road  
Honolulu, HI 96819

Phone: 808-847-2661  
fax: 808-848-5451  
Email:

Ken Palfrey  
Oregon State University  
Ship Operations  
P.O. Box 429  
South Beach, OR 97366

Phone: 503-867-0224  
fax: 503-867-0294

Dolly Dieter  
National Science Foundation  
4201 Wilson Blvd. Rm 725  
Arlington, VA 22230

Phone: 703-306-1577  
fax: 703-306-0390  
OMNET: E.Dieter  
Email: [edieter@NSF.gov](mailto:edieter@NSF.gov)

Annette DeSilva  
Office of Naval Research  
800 North Quincy Drive  
Arlington, VA 22230

Phone: 713-696-5430  
fax: 713-696-2007  
internet: [desilva@onrhq.onr.navy.mil](mailto:desilva@onrhq.onr.navy.mil)

William Hahn  
University of Rhode Island  
Graduate School of Oceanography  
Kingston, RI 02881

Phone: 401-792-6554  
fax: 401-792-6574  
internet: [b-hahn@gsosunl.gso.uri.edu](mailto:b-hahn@gsosunl.gso.uri.edu)

Don Hoffer  
University of Rhode Island  
GSO  
Marine Office  
P.O. Box 145  
Saunderstown, RI 02874

Phone:  
fax:  
Email:

Ken Robertson  
Natural Environment Research Council  
Reserach Vessel Services  
No. 1 Dock  
Barry CF62 8AA  
United Kingdom

Phone: 44 446-737451  
fax: 44 446-720562

Larry Burch  
University of Connecticut  
Marine Sciences Inst.  
1084 Shennecosset Rd.  
Groton, CT 06340

Phone:  
fax: 203-449-8085  
Email: MSIADMO1@UCON-NVM.CONN.EDU

Dale Gibb  
Institute of Ocean Sciences  
9860 West Saanich Road  
P.O. Box 6000  
Sidney, BC CANADA V8L 4B2

phone: 604-363-6564  
fax: 604-363-6274

Joe Coburn  
Woods Hole Oceanographic Institution  
Woods Hole, MA 02543

Phone: 508-457-2000 x2624  
fax: 508-247-8675  
Email: jcoburn@whoi.edu

Tom Althouse  
Scripps Onstitute of Oceanography  
297 Rosecrans St.  
San Diego, CA 92106

Phone: 619-534-1643  
fax: 619-534-1635  
Email: talthouse@ucsd.edu

Bill Coste  
University of Hawaii  
Marine Center  
Pier 45 Snug Harbor  
#1 Sand Isaland Road  
Honolulu, HI 96819

Phone: 808-847-2661  
fax: 808-848-5451  
Email: SNUG@POHA.SOEST.HAWAII.EDU

Gene Allmendinger  
46 Oyster River Road  
Durham, NH 03824-3029

Phone: 603-868-2684  
603-436-5372

LCDR Steve Wheeler  
Commandant (G-NIO)  
US Coast Guard  
2100 Second St. S.W.  
Washington, DC 20593-0001

Phone: 202-267-1453  
Fax: 202-267-4425  
Email: S.WHEELER@COMDT.NIO

Enrique Aranda  
JEFE Division Operaciones Marinas  
Instituto de Fomento Pesquero  
Blanco 1067- Valparaso  
Chile

Phone: 032-234143  
fax: 032-21378

Jack Bash  
UNOLS

Phone:  
Email: UNOLS@GSOUN1.GSO.URI

Tom Smith  
University of Alaska  
Seward Marine Center  
P.O. Box 730  
Seward, AK 99664

Phone; 907-224-5261  
fax: 907-224-3392  
OMNET: T.Smith.UAF  
E-Mail : FNTDS@AURORA.ALASKA.EDU

Steve Rabalais  
LUMCON  
8124 Hwy. 56  
Chauvin, LA 70344

Phone: 504-851-2808  
fax; 504-851-2874  
Email: srabalais@SMTPGW.LUMCON.EDU

Don Gibson  
University of Texas  
Marine Science Institute  
P.O. Box 1267  
Port Aransas, TX 78373

Phone: 512-749-6711  
fax: 512-749-6777  
ship: 512-749-6735

Tim Pfeiffer  
University of Delaware

Phone: 302645-4341  
Email: pfeiffer@udel.edu

Chris Gobey  
Saclant Undersea Research Centre  
La Spezia, Italy

Phone: 39 187540219  
fax: 39 197524163

Barbara Martineau  
Woods Hole Oceanographic Institute  
38 Water Street  
Woods Hole, MA

Phone:  
fax:  
Email: Bmartineau@cliff.whoi.edu

Bruce Cornwall  
University of Maryland  
CEES-RFO  
P.O. Box 38  
Solomons, MD 20688

Phone: 410-326-7243  
fax: 410-326-7342  
Email: [rfo@cbl@umd.edu](mailto:rfo@cbl@umd.edu)

William Keefe  
University of Maryland  
CEES-RFO  
Box 38  
Solomons, MD 20688

Phone: 410-326-7256  
fax: 410-326-7342

Kenneth S. Johnson  
Moss Landing Marine Labs  
P.O. Box 450  
Moss Landing, CA 95039

Phone: 408-755-8657  
fax: 408-753-2826  
Email: [Johnson@mlml.calstate.edu](mailto:Johnson@mlml.calstate.edu)

Linda Williams-Rowe  
Maritime Health Services  
5343 Tallman Ave NW  
Suite 104  
Seattle, WA 98107

Phone: 206-781-8770  
fax: 206-781-8771

## Appendix 3

# 1993 CRUISE ASSESSMENT SUMMARY

Date Compiled: 9/16/94

SHIP	OPER DAYS	DAYS REPORTED	TTL (1) CRUISES	RPTS RECD	% RPTS RECD	REPORTED LOST TIME (2)			SUCCESS			COMMENTS							
						WEA.	SHIP	SCI.	F	P	M	U	%	KUDOS	%	CORR	%		
MELVILLE	308	301	10	11*	100	1.00	14.25	3.50	18.75	6.2	9	2	0	0	82	8	73	2	18
KNORR	279	199	11	6	55	2.00	2.00	5.00	9.00	4.7	5	1	0	0	83	6	100	3	50
ATLANTIS II	250	162	16	11	69	2.50	20.75	0.00	23.25	14.4	6	4	0	1	55	11	100	5	45
EWING	221	17	7	1	14	0.00	0.00	0.00	0.00	0.0	1	0	0	0	100	1	100	0	0
T. THOMPSON	287	158	11	7	64	1.50	5.25	2.25	9.00	5.7	4	3	0	0	57	6	86	6	86
MOANA WAVE	249	194	16	10	63	2.00	0.75	1.00	3.75	1.9	8	1	0	0	80	8	80	5	50
EDWIN LINK	142	80	17	9	53	8.00	0.50	0.00	8.50	10.6	8	0	1	0	89	9	100	1	11
ENDEAVOR	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OCEANUS	193	172	14	13	93	5.50	0.00	0.50	6.00	3.5	12	0	1	0	92	13	100	5	38
GYRE	170	114	12	9	75	6.50	0.00	0.50	7.00	6.1	7	2	0	0	78	7	78	3	33
C. ISELIN	221	0	12	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NEW HORIZON	239	203	20	18	90	0.00	1.25	0.50	1.75	0.9	14	4	0	0	78	14	78	1	6
SEWARD JOHNSON	144	112	16	13	81	3.50	1.00	0.00	4.50	4.0	11	2	0	0	85	12	92	1	8
WECOMA	220	220	12	14*	100	7.00	4.00	0.50	11.50	5.2	11*	3*	0	0	79	13*	93	5	36
PELICAN	226	112	30	16	53	1.00	0.00	0.50	1.50	1.3	14	2	0	0	88	15	94	1	6
LONGHORN	53	0	11	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
POINT SUR	174	115	52	32	62	2.25	5.25	0.75	8.25	7.2	24	6	0	0	75	26	81	4	13
CAPE HATTERAS	192	192	43	43	100	16.00	1.75	0.00	17.75	9.2	33	2	1	2	77	33	77	4	9
ALPHA HELIX	167	87	8	4	50	8.00	0.00	0.00	8.00	9.2	2	2	0	0	50	3	75	0	0
R. G. SPROUL	161	129	38	31	82	0.00	0.50	1.00	1.50	1.2	26	2	1	0	84	26	84	6	19
CAPE HENLOPEN	159	142	26	21	81	3.50	2.00	0.00	5.50	3.9	17	4	0	0	81	13	62	3	14
WEATHERBIRD II	122	99	38	32	84	2.00	1.50	6.00	9.50	9.6	23	5	1	0	72	18	56	10	31
BLUE FIN	96	36	41	18	44	7.50	0.50	0.00	8.00	22.2	14	4	0	0	78	5	28	1	6
LAURENTIAN	62	55	13	7	54	2.00	0.00	0.00	2.00	3.6	4	2	0	0	57	7	100	2	29
BARNES	62	35	34	15	44	0.00	0.00	0.00	0.00	0.0	13	1	0	0	87	10	67	1	7
CALANUS	106	0	18	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTALS	4503	2928	526	334	63	81.75	61.25	22	165	5.6	262	52	5	3	78	251	75	69	21

TOTALS FOR 1992	4950	3345	547	323	59	90.25	59.25	23.50	166.00	5.0	258	56	9	0	80				
-----------------	------	------	-----	-----	----	-------	-------	-------	--------	-----	-----	----	---	---	----	--	--	--	--

Notes: (1) Total cruises represent total science cruises.  
 (2) Statistics are based on days reported.  
 \* Extra Reports Submitted



SHIPBRIEF SUMMARY OF P I ASSESSMENT REPORTS

MELVILLE: Captain and crew excellent, great ship (7)// Z-drive failure (1), hydro winch failure (1), 3.5 kHz still a problem (1).

KNORR: Excellent crew, great cooperation (6)// GPS problem (2), winch problem (2), shipboard comms (1), light for fantail (1).

ATLANTIS II: Outstanding crew support and dive ops (11)// E-mail problem (2), Navy clearance problem (1), winch problem (1).

EWING: Best ship I've worked on (1).

THOMPSON: Ship's officers and crew most helpful, great ship to work from (6)//CTD ops problem (2), iron in water (2), general alarm in lab (1).

MOANA WAVE: Professional captain and crew, excellent platform (8)// Problem with tech charges (2), sewage backup (1), level ind on winch and A-frame problems (1).

EDWIN LINK: Captain and crew exceptional (9)// Boats need work (1).

ENDEAVOR: Out of service.

OCEANUS: Great ship and crew (13)// IMET problems (3), XBT problems (2), need stronger recycling program (1).

GYRE: Professional crew, excellent working relationship (7)// Water in fuel (1), contract problems (1), lack of coordination bridge and science party (1).

COLUMBUS ISELIN: No reports received.

NEW HORIZON: Excellent support from ship, ship in great condition (14)// Lab electrical problems (1).

SEWARD JOHNSON: Outstanding crew, great cooperation (12)// small boat repairs (1), equipment failure (1).

WECOMA: Efficient ship ops, great techs (13)// WTD warped (1), tugger winch problem (1), A-frame concerns (1), people training (2).

PELICAN: Excellent vessel, great crew, great food (15)// problem with hood door in lab (1).

LONGHORN: No reports received.

POINT SUR: Great crew, excellent ship ops (26)// Agent in LaPaz unsat (1), box core problem (1), ADCP problem (1).

CAPE HATTERAS: Great cooperation with crew, great techs, excellent food (33)// Confusion on manning requirements (1), piston core problem (1), hydraulic power failure (1).

ALPHA HELIX: Crew helpful and supportive (3).

SPROUL: Professional crew and techs, cruise went well (26)// Electrical problem (1), .322 winch marginal (1), lost bongo, broken clasp (1), cruise set up problem (1).

CAPE HENLOPEN: Excellent crew, captain and techs (13)// Rosette handling tricky (1), ship engine failed (1), problem with SAIL system (1).

WEATHERBIRD II: Helpful crew (18)// Noise level in lab (1), A/C problems (3), water leaks (2), power irregular (2).

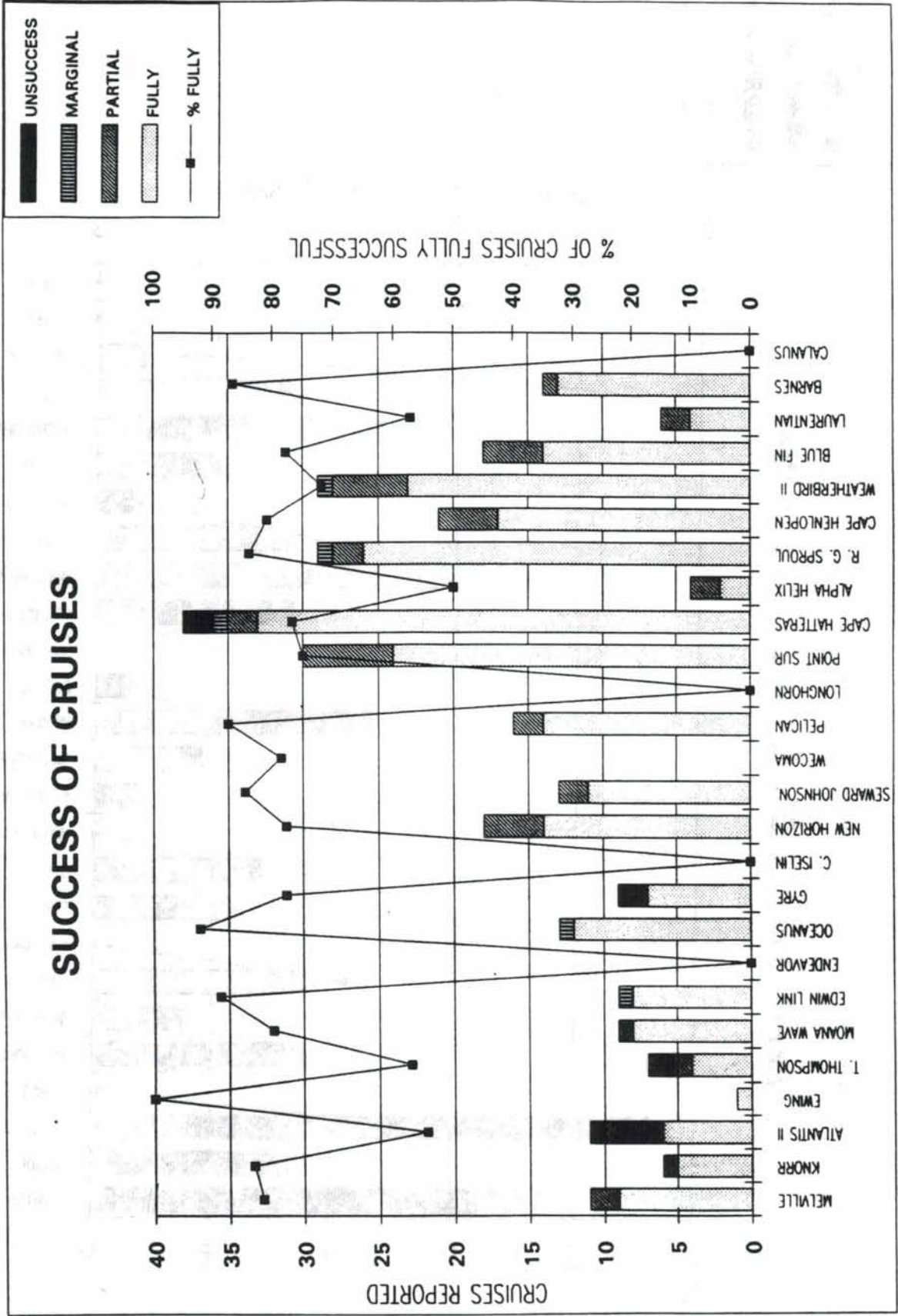
BLUE FIN: Captain and crew cooperative and helpful (5)// Aging ship (1).

LAURENTIAN: Captain and crew were excellent (7)// Meter wheels need help.

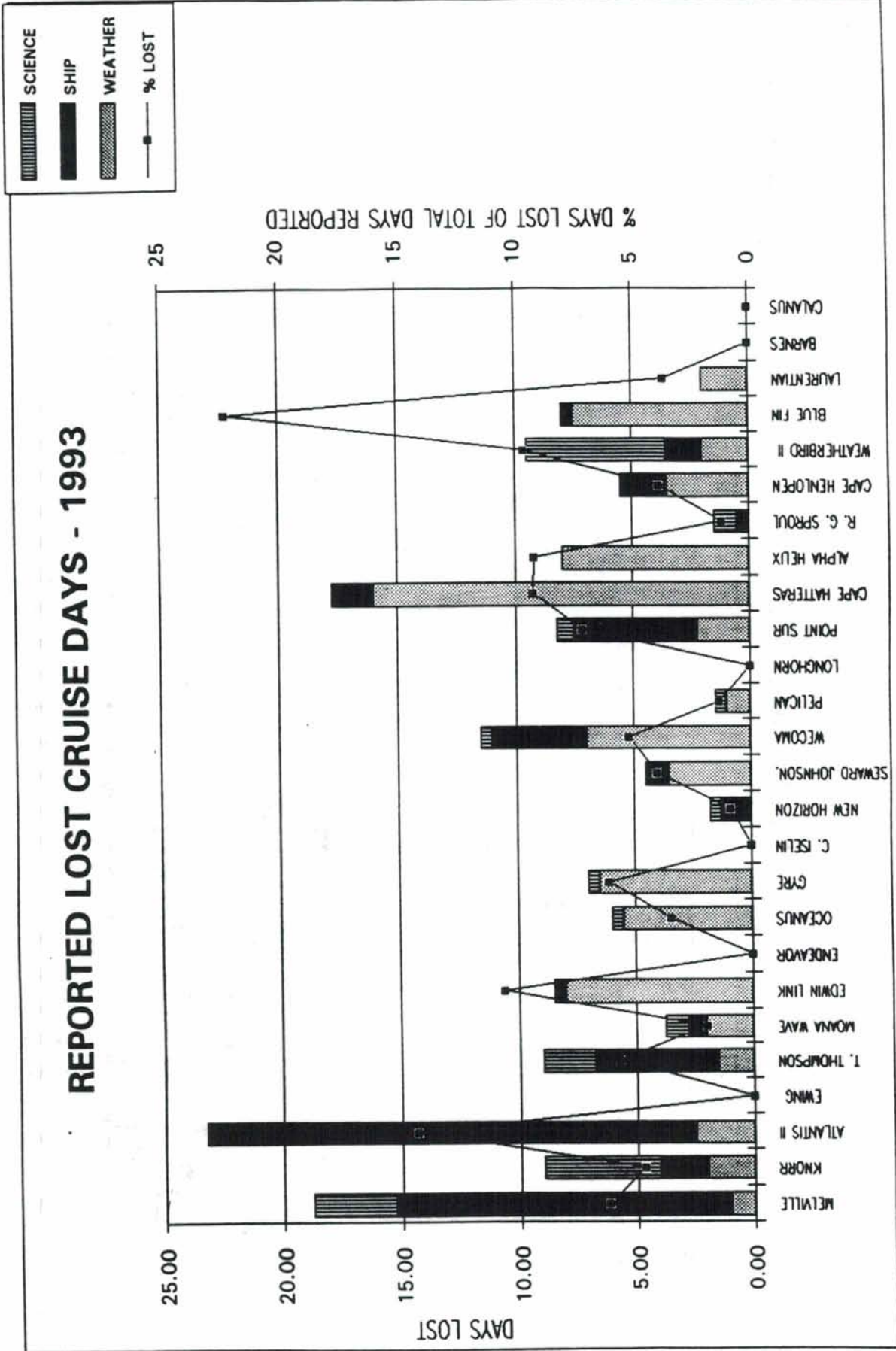
BARNES: Ship and crew work well (10)// Nisken bottles not ready (1).

CALANUS: No reports received.

# SUCCESS OF CRUISES



# REPORTED LOST CRUISE DAYS - 1993



# 1993 CAPTAIN'S POST CRUISE REPORT SUMMARY

Date Compiled: 9/16/93

SHIP	ASSESS. REPORTS RECEIVED	OBJECTIVES MET		ORGANIZATION						COMMUNICATIONS							
		YES	NO	E	G	A	B	P	E	G	A	B	P				
MELVILLE	3	3	0	1	1	0	0	1	1	0	0	0	1	1	1	0	0
KNORR	11	11	0	11	0	0	0	0	0	0	0	0	0	11	0	0	0
ATLANTIS II	15	14	1	3	7	2	1	0	0	0	0	0	5	5	3	0	0
EWING	3	1	2	0	2	1	0	0	0	0	0	0	0	0	2	1	0
T. THOMPSON	9	9	0	4	3	0	1	0	0	0	0	0	6	1	0	1	0
MOANA WAVE	16	14	2	4	7	2	1	1	1	1	1	0	4	5	7	0	0
EDWIN LINK	11	9	2	8	3	0	0	0	0	0	0	0	8	3	0	0	0
ENDEAVOR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OCEANUS	13	12	1	1	11	1	0	0	0	0	0	0	1	11	1	0	0
GYRE	12	12	0	8	1	3	0	0	0	0	0	0	9	0	3	0	0
C. ISELIN	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NEW HORIZON	12	12	0	5	6	0	1	0	0	0	0	0	3	7	1	1	0
SEWARD JOHNSON.	14	14	0	4	5	4	1	0	0	0	0	0	4	9	0	1	0
WECOMA	13	13	0	0	10	3	0	0	0	0	0	0	1	11	1	0	0
PELICAN	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
LONGHORN	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
POINT SUR	38	30	0	15	20	3	0	0	0	0	0	0	14	18	2	2	0
CAPE HATTERAS	43	36	3	4	30	3	1	1	1	1	1	0	6	25	7	1	1
ALPHA HELIX	8	6	1	4	3	1	0	0	0	0	0	0	2	5	1	0	0
R. G. SPROUL	31	29	2	10	13	8	0	0	0	0	0	0	12	16	3	0	0
CAPE HENLOPEN	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WEATHERBIRD II	38	38	0	11	22	3	0	0	0	0	0	0	12	21	3	0	0
BLUE FIN	39	32	4	5	33	1	0	0	0	0	0	0	3	35	1	0	0
LAURENTIAN	13	13	0	9	2	2	0	0	0	0	0	0	9	2	2	0	0
BARNES	16	16	0	13	1	2	0	0	0	0	0	0	13	2	1	0	0
CALANUS	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>TOTALS</b>	<b>359</b>	<b>325</b>	<b>18</b>	<b>120</b>	<b>180</b>	<b>39</b>	<b>6</b>	<b>3</b>	<b>125</b>	<b>179</b>	<b>38</b>	<b>6</b>	<b>1</b>				

TOTALS FOR 1992

370	349	18	26	138	84	8	3	124	149	70	6	1
-----	-----	----	----	-----	----	---	---	-----	-----	----	---	---

**SHIP****BRIEF SUMMARY OF CAPTAIN'S ASSESSMENT COMMENTS**

**MELVILLE:** Well organized, excellent cooperation (1)// Unscheduled survey, no charts; no spares to camera; hydro winch inoperative (1)

**KNORR:** Exceptional cooperation, well run cruise (8)/

**ATLANTIS II:** Excellent science party, successful cruise (6)// Dirty rooms (1); poor advanced planning (1); camera sled leaking oil (1) unable to recover data logging instrumentation (1).

**EWING:** Crane winch slipped under load (1); Capstan problems (2); winch spooling problems (1).

**THOMPSON:** Lost plankton net and 3 core barrels (1); poor launching for Seamarc (1); First aid kit to be installed in hydro lab (1); safety shoes (1).

**MOANA WAVE:** Well organized cruise, went smoothly (7)// Undermanned science party (2) Poor communications with scientists (1); winch problem (1).

**EDWIN LINK:** Scientists had realistic goals (1)// Sub problem with bell (1).

**ENDEAVOR:** Inactive in 1993.

**OCEANUS:** All went well (7)// Not enough time in schedule to accomplish work.

**GYRE:** Excellent organization (1) // Poor organization and planning (1); safety shoes (2); life vests needed in boat (1).

**COLUMBUS ISELIN:** No reports received.

**NEW HORIZON:** Good cooperation with crew (2); outstanding ROV work (1)// Poor comms with science party;

**SEWARD JOHNSON:** Well organized, good cruise (4)// Improper use of chemicals (1); poor science planning (1).

**WECOMA:** Great cruise, scientists cooperative (8)// Cable termination (2), scientists expected more ship participation (1).

**PELICAN:** Smooth operation, totally cooperative (1).

**LONGHORN:** No reports received.

**POINT SUR:** Great cruise, well organized (19)// Chief Sc sea sick (1), poor comms (1), lack of preparation (3), motor problem (1).

**CAPE HATTERAS:** Good working plan (1)// Sailing delays, weather (7), inadequate science personnel (1).

**ALPHA HELIX:** Great cruise, well organized (5)// Weather problems (3).

**SPROUL:** Professional group, well organized (18)// Better dive op planning (1), instrument problems (5) Science party disorganized (1), equipment repairs (4).

**CAPE HENLOPEN:** No reports received.

**WEATHERBIRD II:** Well organized good working relations (4)// Safety shoes needed (1).

**BLUE FIN:** Unable to find animals (1).

**LAURENTIAN:** No comments.

**BARNES:** No comments.

**CALANUS:** No reports received.

## Appendix 4

## National Oceanic and Atmospheric Administration

Due to scheduling conflicts, it wasn't possible for NOAA to be represented this year, but a NOAA report was submitted for the minutes by Captain Mulhern and is current through December 1995.

The Director of the Office of NOAA Corps Operations, Rear Admiral Sigmund R. Petersen, will be retiring this spring, and Rear Admiral William L. Stubblefield has been selected to replace him.

Construction of the NOAA AGOR by Halter Marine, Inc. (part of Trinity Marine, Inc.) in Moss Point, Mississippi, began July 18, 1994. Two modules have been joined and are in place on the shipway, and 10 additional modules are being worked on. A keel laying ceremony will occur in February or March 1995, launch is scheduled for June 1996, and delivery for August 15, 1997. This is the 4th vessel of the AGOR 23 class to be constructed.

Contract award is expected soon for conversion of a former T-AGOS vessel which will primarily support the Tropical Atmosphere Ocean (TAO) array in the equatorial Pacific, for the climate research and prediction programs. The conversion is expected to be completed in December 1995. Similarly, an award is expected very soon for "repair to extend" (RTE) the service life of the fisheries research vessel DELAWARE II, with the yard period expected to begin in March and be completed in December 1995. Other Fleet Repair and Modernization Program activities continue including development of mission requirements, specification, and/or other planning, with funding at a relatively steady level.

A "re-engineering" study of the management of the NOAA Fleet has been completed, and various streamlining plans are under consideration. At this time all such studies have been administratively restricted by NOAA management. A number of UNOLS operators were very helpful in providing information and their assistance is greatly appreciated. It is clear that the NOAA Fleet and Office of NOAA Corps Operations will be affected by the NOAA-wide reductions in work force (expected to be about 2000 FTE for all of NOAA) that will occur over the next 5 years.

This year, NOAA will be utilizing charter vessels to backfill for the DELAWARE II while it is out of service, a UNOLS vessel to complete a number of GLOBEC cruises on Georges Bank, charters for hydrographic survey ship operations in Long Island Sound, and charters for other miscellaneous ship requirements.

MALCOLM BALDRIGE will depart in February for the Indian Ocean, to join UNOLS and international vessels. BALDRIGE will conduct cruises for the Atlantic Climate Change Program (ACCP), Radiatively Important Trace Species (RITS), WOCE (I5/I7/I1/I8), GLOBEC, and OACES programs.

In other miscellaneous activities, NOAA expects that a comprehensive review of the recent Marine Board Report regarding Fleet Modernization will be completed in about May 1995 by managers of NOAA's line organizations, NOAA recently participated in the 1994 International Ship Operators Meeting, and NOAA plans to use the OCEANIC system along with UNOLS to distribute ship schedules and other information.

## Appendix 5



## Research Vessel Utilization and Future Planning Workshop

Participants: Mike Prince, Bill Hahn, Tim Pfieffer, Tom Smith, Bill Keefe, Ken Robertson, Chris Gobey, Jack Bash, Harry Barnes, Annette DeSilva, John Moore, Gene Almendinger, Gene Olsen.

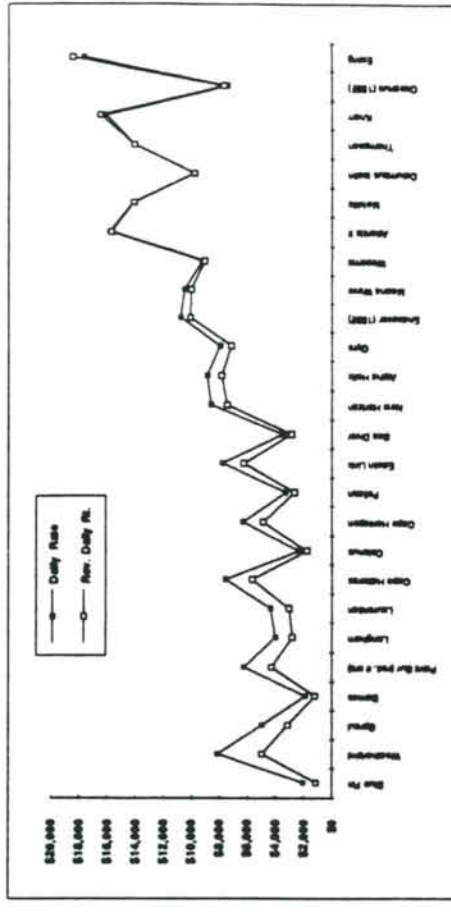
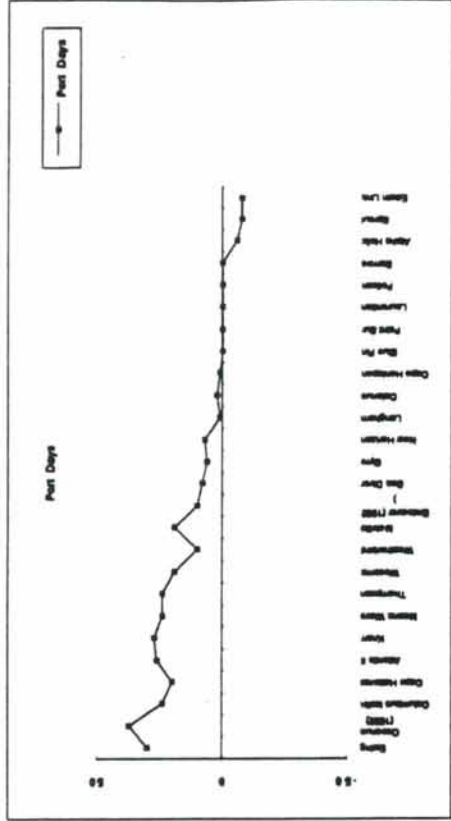
The group discussed the impact of lost days and changes in the schedule on the daily rate and total budget. This led into a discussion of how UNOLS vessels account for their charges and whether or not you use a fixed daily rate or a provisional rate. The participants from England and Europe were more familiar with using cost structures similar to commercial contractors that have fixed rates. Spreadsheets and graphs showing the impact of charging for inport days on the daily rate of UNOLS vessels were presented. One graph showed what percentage of days are inport operational and the effect on the daily rate if only at sea days are charged for. The second spreadsheet and graph showed the effect on daily rates if all ships could charge for a day of mobilization and a day of demobilization for each trip. The discussion centered around the fact that in terms of comparing the daily costs of some vessels with others, especially commercial vessels, the structure of operating days and sea days can have an adverse affect on the competitiveness of UNOLS vessels that operate exclusively out of their home port. Some people pointed out that the daily rate was an artificial figure and that what counted to the funding agencies was the bottom line, the total cost of operating the vessel. The counter argument to this is that when it comes to bringing in users from other than NSF and maybe ONR the daily rate is in fact very significant. These funding agencies would like to see the UNOLS fleet bring in operating money from other sources and in most cases this means being financially competitive. In general the actual cost to complete a project should be the determining factor, however, many times the daily rate is the factor used to determine whether or not to pursue scheduling work on a particular vessel. The daily rate and the number of operating days are utilized to determine whether or not a vessel is efficiently and fully utilized. In the case of many vessels the days spent in port before and after a particular cruise are largely devoted to the support of that project. Our group agreed that there could be a better way of recognizing the direct support provided to a project while a vessel is in port whether or not that port was the vessels home port. If these in port support days could be effectively recognized and accounted for then it might also be possible to incorporate them into the system for charging the costs of operation. The desired end result would be to better reflect the amount of support received by each project to include inport time and to be able to distribute the costs accordingly. An ad hoc committee was formed to pursue alternate mechanisms to account for the

use of UNOLS research vessels in port and at sea. This committee consists of Mike Prince, Bill Hahn, Tim Pfeiffer, and Rose Dufour( or Tom Althouse).

A short discussion of the usefulness of the Chief Scientist's evaluation and the Captain's evaluation was conducted. it was decided that we should ask the UNOLS Council to evaluate what purpose the post cruise reports were supposed to fulfill and then start a process to re-evaluate the format of the report and how it is completed to see if it can better fulfill that purpose.

Site	\$ Cr.	G.D.	DMS	Port Days	Miles	Out of Sea	Daily Mile	Daily Mile	Sea Day Ratio % P. Days	Lev.
Edin	16	81	191	38	48	81	\$17,402	\$39,419	30%	12%
Coastal (1993)	14	313	274	96	96	6	\$7,488	\$6,953	93%	12%
Coastal, Inland	12	281	197	84	79	6	\$9,828	\$11,828	83%	11%
Crane, Midland	41	187	167	18	46	6	\$7,495	\$9,659	78%	11%
Alaska II	45	246	219	27	65	6	\$18,864	\$17,747	93%	11%
Kratt	16	274	251	23	64	6	\$16,128	\$17,658	91%	10%
North West	18	266	242	24	72	6	\$19,488	\$17,829	91%	10%
Thompson	12	273	249	24	36	6	\$14,911	\$15,449	96%	7%
Wisconsin	12	229	251	19	16	18.1	\$9,274	\$10,152	92%	7%
Woodward	48	332	272	19	184	6	\$6,128	\$9,794	62%	8%
Marble	19	264	277	19	67	6	\$14,208	\$15,149	94%	8%
Embargo (1993)	15	261	191	19	182	19.8	\$19,800	\$11,458	58%	4%
Sea Otter	25	163	163	6	194	19.8	\$9,448	\$2,653	27%	4%
Sea Otter	12	162	154	6	76	12.6	\$2,948	\$6,751	43%	2%
New Horizon	21	248	233	7	136	6	\$9,312	\$8,671	92%	2%
Leeward	18	153	83	2	189	6	\$4,896	\$4,677	95%	2%
Coastal	19	118	118	2	38	6	\$6,336	\$2,277	36%	2%
Crane, Inland	26	164	143	1	16	6	\$9,327	\$6,266	67%	1%
Sea Pk	44	168	168	6	14	6	\$9,692	\$9,692	100%	0%
Peak, Bay	64	177	177	6	49	6	\$6,128	\$6,266	100%	0%
Leeward	14	66	66	6	6	6	\$4,208	\$4,208	100%	0%
Crane	26	248	248	6	16	6	\$9,276	\$3,284	36%	0%
Beaufort	18	81	81	6	26	6	\$1,324	\$1,324	100%	0%
Alaska, Inland	8	167	173	-6	75	19	\$9,872	\$8,671	87%	-1%
Beaufort	41	163	166	-6	266	6	\$6,912	\$4,794	70%	-3%
Beaufort, Inland	19	188	146	-6	21	21	\$7,407	\$7,411	100%	-3%

Site	\$ Cr.	G.D.	DMS	Lead Days	Miles O. Days	Daily Mile	Daily Mile	% Cr. to D.A.
Edin	44	168	168	84	199	\$4,697	\$1,189	25%
Sea Pk	48	128	128	92	214	\$5,128	\$5,128	100%
Woodward	41	153	166	82	242	\$9,612	\$3,158	33%
Beaufort	18	61	61	3-6	97	\$1,214	\$1,219	100%
Peak, Bay, Inland, & Off	46	177	177	84	387	\$6,128	\$4,358	71%
Leeward	12	153	153	2-4	74	\$4,896	\$3,726	76%
Leeward	14	66	66	2-6	52	\$4,208	\$3,747	89%
Crane, Inland	41	187	187	2-4	148	\$2,499	\$9,792	39%
Crane	19	118	119	3-9	148	\$2,324	\$1,767	76%
Crane, Inland	26	164	163	8-9	213	\$6,327	\$4,671	74%
Alaska	26	244	243	6-6	246	\$3,212	\$2,671	83%
Beaufort, Inland	18	118	118	2-4	166	\$7,004	\$5,129	73%
Sea Otter	25	163	163	8-9	233	\$3,649	\$9,689	26%
New Horizon	6	197	173	4-5	277	\$6,912	\$7,458	92%
Alaska, Inland	12	168	168	2-4	186	\$7,408	\$7,187	97%
Sea	12	168	168	2-4	186	\$7,408	\$7,187	97%
Embargo (1993)	12	261	191	2-4	218	\$19,800	\$19,800	100%
North West	18	266	242	3-6	278	\$19,488	\$19,828	98%
Wisconsin	12	229	251	2-4	228	\$9,274	\$9,689	105%
Alaska II	14	248	219	2-6	247	\$16,864	\$15,728	93%
Marble	19	264	277	2-6	267	\$14,208	\$14,154	100%
Coastal, Inland	12	281	197	2-4	321	\$9,828	\$9,828	100%
Thompson	12	273	249	2-4	273	\$14,911	\$14,911	100%
Kratt	16	274	251	2-6	271	\$16,128	\$16,845	104%
Coastal (1993)	14	313	274	2-6	284	\$7,488	\$7,711	103%
Edin	16	281	191	2-6	311	\$17,407	\$16,493	95%



## Appendix 6

## MEDICAL STANDARDS WORKSHOP

The Medical Standards Workshop discussed three agenda items:

- Advisability/desirability of developing medical standards for the UNOLS fleet.
- Ditto for scientists and technicians carried aboard UNOLS vessels.
- Changes in medical procedures brought about by the new UNOLS contract with Medical Health Services.

**Physical Standards for the UNOLS Fleet.** It is advisable to develop physical standards for the UNOLS fleet. No set of standards could be applied by every institution, but standards that are based on job performance could be the basis for a set of standards developed by each institution which would satisfy its own administrative requirements. A beginning point would be the Seafarer's Health Improvement Program (SHIP) standards. Additionally, some members of institutions have developed their own standards based on job descriptions. Rather than reinventing the wheel, these documents could be used to produce a generic set of standards for the UNOLS fleet. This will require medical expertise to interpret SHIP requirements and legal expertise to insure compliance with the Americans with Disabilities Act as well as other legal considerations. Exactly what can be done in house and what must be contracted out could not be determined.

**Recommendation.** That UNOLS Medical Standards be established along the lines similar to the UNOLS Safety Standards. The final document would be much smaller than the safety standards as would the level of effort involved. These standards will form the basis for the physical requirements expected of the various crew positions in the UNOLS fleet.

**Physical Standards for Scientists and Technicians.** This will be a follow on effort to the preceding. The committee felt that there must exist certain physical conditions which would and should preclude scientists and technicians from participating in extended seagoing cruises. Whether or not those conditions can be identified and whether or not they would be supported by UNOLS is unknown.

**Recommendation.** After physical standards for UNOLS crew have been resolved, minimum standards for scientists and technicians should be investigated. As a starting point, the medical standards required by the Office of Polar Programs for scientists in isolated areas should be considered for their applicability to seagoing science work. Physical examinations for scientists are not under consideration, but rather a medical history form/questionnaire would be used to determine possible disqualifications.

**Medical Health Services Contract.** A discussion was held regarding the UNOLS contract with MHS and how it would affect the procedures presently in place on UNOLS vessel. As a result of this discussion, the committee recommends the following:

- MHS Medical History forms will be used. Crew forms will be forwarded to MHS for in their files. Science and technicians forms will be carried on the vessel in a secure location to be available and used in the event of a medical emergency.
- Ships operating in isolated areas where communications may be a problem, should make test calls to MHS to establish a reliable link.
- Ship operators are reminded of the requirement to have both alcohol and drug test kits aboard ship to be used in the event of an accident or injury. MHS can provide those kits as well as necessary training. There is a new alcohol testing procedure which involves a saliva test rather than breath test. This is the preferred kit.
- The committee recommends that operators investigate the possibility of using a Health Statement Form to be signed by crewmembers who are leaving the vessel either temporarily or permanently. A statement that they are departing the vessel in good health, while not legally fool proof, could be very useful in the event of a subsequent sickness or injury claim.

The persons who attended this meeting were:

Bill Coste	University of Hawaii
Robert Hinton	University of Washington
Michael Lang	Smithsonian
Linda Williams Rowe	Medical Health Services
Dean Letzring	TAMU
Lee Black	Bermuda
Dennis Nixon	UNOLS/URI
Joe Coburn	WHOI

A chairman for the Medical Standards Committee was not named. Volunteers for this position are solicited and until such an individual is identified, Bill Coste (UH) will act as chairman

## Appendix 7

## Ship Operations Budget

Participants: Paul Ljunggren, Ken Palfrey, Tom Althouse, Quentin Lewis, Linda Goad, Barbara Martineau, Bruce Cornwall, David Powell, and Dolly Dieter.

The workshop started its discussion addressing NSF's concern with what is seen as increasing Shore Support Staffs at a time when the NSF Ship Operations Budget is not growing. The probable reasons for such increases were identified as increasing administrative requirements. Sources cited for this were federal regulations and the restructuring of organizations and state bureaucracies with wider range of responsibilities falling on the marine department staffs. This then led to a discussion on indirect costs and negotiation of the indirect cost rate. The fact that funds are not increasing led to a final thought which was that if funds are not increasing to support our requirements then we, collectively, are faced with the options of making due with what we have, leaving things undone, or reducing the fleet.

The next item of discussion was the maintenance and repair line where projections are largely based on the trends of previous years plus the identification of what were termed as big ticket items. The effect on the major overhaul line of newer and stricter environmental regulations and the increasing percentage of the major overhaul dollar being consumed for environmental compliance is also a source of budgetary pressure. One question that arose related to what constitutes the acquisition of equipment for which prior approval from NSF must be sought. This continues to be a somewhat less than clear area.

Fuel and lubes continue to be a major portion of the budget, but in recent years has become less of a factor. The potential for further savings in fuel were discussed. This led to a discussion of Navy fuel acquisition, as a source of fuel. It was noted that the Navy sets its price once a year and then maintains it throughout the year. There were further discussions on the use of international fuel brokers who can shop the costs of fuel in a port and offer the most competitive rate.

Further discussions occurred relating to the additional budget lines making apparent the wide variations in the assignment of budget costs by operators. For example what constitutes Stores. What one institution assigned to stores another institution assigned to General Maintenance and Repair. Similarly there was variation in where such things as Inmarsat costs were assigned or how travel costs were broken out and assigned. The result was recognition of the fact that there needed to be an increased effort as far as elaboration of the budget and that an effort needed to be made within RVOC to establish guidelines for each of the budget lines.



Finally, there was some discussion as to the need for ship operators to reach out and find additional sources of revenue to support their operation. This led to a discussion of some of the difficulties related to competing with other private operators and our costing structure. The bottom line was that all felt that the UNOLS vessels were efficiently managed and that there were certain intangible benefits associated with the use of a UNOLS vessel which needed to be identified and widely circulated.

The conclusions of this work group were:

- There needed to be recognition of the fact that sponsor agencies are under considerable budgetary pressure.

- A greater effort needed to be made by institutions to comply with proposal guidelines with regards to the information required in the Budget Elaboration Section of the proposal and additional amplification in almost every section would be of assistance to other operators as well as funders.

- Guidelines needed to be established which would provide guidance and greater consistency when assigning costs to specific budgetary line items.

- A white paper needed to be prepared which identified the intangible benefits available when science is performed on UNOLS research vessel.

## Appendix 8

## Control of Pollution and Hazardous Materials Workshop

Attendees: Steve Rabalais, LUMCON  
Tim Askew, Harbor Branch  
Bill Clark, University of Hawaii  
Sandy Schwaab, Jamestown Marine  
Services, Inc.  
Don Hoffer, Univ. of Rhode Island  
Larry Burch, Univ. of Connecticut

### Oil Spill Contingency Plan

A RVOC generic Oil Spill Contingency Plan was submitted to the workshop participants. The generic plan was prepared according to the USCG proposed rules for Shipboard Oil Pollution Emergency Plans, 33 CFR Part 151. It was noted that the final ruling had been issued but changes that were made in the final ruling had not been incorporated into the generic plan. The following is a list of some of the most significant changes brought about by the final ruling:

- The operator must be cognizant of existing State plans or other municipal plans, and plans of other countries which may be applicable.
- The Coast Guard does not require the designation of an Oil Spill Response Organization, but it indicates that the inclusion of a designated responder would enhance the plan.
- Information on the ship's call signs, official number, IMO number, and principal characteristics must be included in the plan.
- The format for initial notification was changed to include the ship's name and quantity of cargo spilled.
- The deadline for submission of plans for existing ships has been changed to 4 January 1995.

The workshop participants agreed that the requirement for all UNOLS vessels to carry oil spill contingency plans should be included in the RVSS. The generic plan should be revised to include the changes in the final ruling and this plan should be available to UNOLS members in the preparation of plans for their vessels.

### Other Environmental Issues

Disposal of garbage and the issue of hazardous scientific substances aboard vessels were examined by the working group. It was decided that the issue of garbage disposal was addressed by MARPOL regs. and that further attention to this matter was not warranted. Hazardous scientific substances

issues were discussed, and specific problems could not be identified, although the group recognized that scientists on occasion show a lack of regard for safety when storing and handling hazardous materials on UNOLS vessels.

No new environmental issues were identified. It was determined that the formulation of the generic oil spill contingency and the inclusion of requirements in the RVSS, for UNOLS vessels to adopt vessel specific plans, resolved the major environmental issues facing RVOC.

## Appendix 9



Office of the Assistant Secretary for the Sciences,  
A&I Bldg. - 2201, Washington DC 20560 (202) 786-2815; 357-4048 (fax)

### Summary of Scientific Diving Activity from UNOLS Research Vessels in 1993

In 1993, 648 scientific dives were conducted from UNOLS Research Vessels by 62 divers; 6 from Duke University, 9 from University of Alaska, 10 from University of Texas, and 37 from Harbor Branch Oceanographic Institution. All of these 62 divers were from current, AAUS organizational member institutions, and no outside authorizations were granted. No problems with scientific diving reciprocity were reported. Harbor Branch indicated 5 cruises involving diving for which dive data was not available (in cases where the ship is contracted by an outside agency, that agency is designated as the lead Diving Control Board, and data is not submitted to Harbor Branch.)

No diving related incidents were reported.

Diving from UNOLS vessels occurred in the following categories:

No Decompression:	>99%
Night	<1%
Blue Water	<1%
Nitrox	<1%
Dry Suits	26%
Computers Used	32%

1993 UNOLS Dive Data

	# OF CRUISES 1993	# OF DIVING CRUISES 1993	# OF DIVES 1993	#DIVES/DEPTH			31'-60'	61'-100'	101'-130'	>130'
				0-30'	31'-60'	61'-100'				
ALASKA	8	1	159	81	69	9	0	0	0	
BERMUDA	109	0	0	0	0	0	0	0	0	
SCRIPPS	/	/	/	/	/	/	/	/	/	
DELAWARE	25	0	0	0	0	0	0	0	0	
DUKE	18	3	85	41	11	19	11	3	3	
SKIDAWAY		NO DIVING								
H.B.O.I.	49	19	390 *	10	76	180	86	38	38	
HAWAII	/	/	/	/	/	/	/	/	/	
COLUMBIA	9	0	0	0	0	0	0	0	0	
L.U.M.CON.	/	/	/	/	/	/	/	/	/	
R.S.M.A.S.	/	/	/	/	/	/	/	/	/	
MICHIGAN	/	0	0	0	0	0	0	0	0	
MOSS LANDING	52	0	0	0	0	0	0	0	0	
OREGON	/	/	/	/	/	/	/	/	/	
U.R.I.	/	/	/	/	/	/	/	/	/	
U.TEXAS	14 days (5?)	4 Days (1?)	14	14	0	0	0	0	0	
T.A.M.U.	/	/	/	/	/	/	/	/	/	
WASHINGTON	70	0	0	0	0	0	0	0	0	
W.H.O.I.	/	/	/	/	/	/	/	/	/	
<b>TOTALS</b>	<b>345</b>	<b>21</b>	<b>648</b>	<b>146</b>	<b>156</b>	<b>208</b>	<b>97</b>	<b>41</b>	<b>41</b>	

/ Indicates non-response  
 \* HBOI Data does not include 5 diving cruises contracted by outside agencies.

	<b># of RESEARCH CRUISES</b>			
	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>
ALASKA	/	/	8	8
BERMUDA	/	/	231	109
SCRIPPS	/	/	57	/
DELAWARE	/	/	27	25
DUKE	/	/	18	18
SKIDAWAY	/	/	/	/
H.B.O.I.	/	/	54	49
HAWAII	/	/	/	/
COLUMBIA	/	/	10	9
L.U.M.CON.	/	/	26	/
R.S.M.A.S.	/	/	17	/
MICHIGAN	/	/	/	/
MOSS LANDING	/	/	43	52
OREGON	/	/	17	/
U.R.I.	/	/	12	/
U.TEXAS	/	/	7	14
T.A.M.U.	/	/	14	/
WASHINGTON	/	/	30	70
W.H.O.I.	/	/	/	/
<b>TOTALS</b>			<b>571</b>	<b>345</b>



	<b># OF DIVING CRUISES</b>			
	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>
ALASKA	2	0	1	1
BERMUDA	/	2	1	0
SCRIPPS	0	0	2	/
DELAWARE	0	2	0	0
DUKE	4	2	4	3
SKIDAWAY	0	0	0	0
H.B.O.I.	2	2	7	19
HAWAII	/	/	2	/
COLUMBIA	0	0	0	0
L.U.M.CON.	/	6	3	/
R.S.M.A.S.	10	12	6	/
MICHIGAN	0	0	0	0
MOSS LANDING	1	1	2	0
OREGON	0	0	2	/
U.R.I.	1	0	1	/
U.TEXAS	/	5	0	4
T.A.M.U.	1	/	5	/
WASHINGTON	0	0	0	0
W.H.O.I.	0	0	0	/
<b>TOTALS</b>	<b>21</b>	<b>32</b>	<b>36</b>	<b>27</b>

	# of DIVES			
	1990	1991	1992	1993
ALASKA	225	/	88	159
BERMUDA	/	10	2	0
SCRIPPS	0	0	4	/
DELAWARE	0	38	0	0
DUKE	239	90	104	85
SKIDAWAY	0	0	0	0
H.B.O.I.	941	804	285	390
HAWAII	/	/	20	/
COLUMBIA	0	0	0	0
L.U.M.CON.	/	50	40	/
R.S.M.A.S.	599	614	54	/
MICHIGAN	0	0	0	0
MOSS LANDING	70	41	64	0
OREGON	0	0	132	/
U.R.I.	37	0	58	/
U.TEXAS	/	27	0	14
T.A.M.U.	267	/	/	/
WASHINGTON	0	0	0	0
W.H.O.I.	0	0	0	/
<b>TOTALS</b>	<b>2378</b>	<b>1674</b>	<b>462</b>	<b>648</b>

	1990 & 91	1992	1993
<b>Outside Divers per year</b>	204	83	60
<b>Outside Divers from AAUS OMI's</b>	88	43	60



**Appendix 10**

RESEARCH VESSEL OPERATORS COMMITTEE  
CHRONOLOGICAL LIST OF MEETINGS

YEAR	DATE(S)	INSTITUTION/FACILITY	LOCATION
1962	April 25	U. S. Coast Guard Headquarters	Washington, DC
	May 17-18	Department of Labor	Washington, DC
	June 5	American Chemical Society	Washington, DC
1963	June 4	Merchant Marine Institute	New York, NY
1964	Jan. 9	Woods Hole Oceanographic Institution	Woods Hole, MA
1965	Feb. 9-10	University of Miami	Miami, FL
		Institute of Marine Science	
1966	April 21-22	Statler Hilton	Washington, DC
1967	April 12-13	National Academy of Science	Washington, DC
1968	Feb. 15-16	Scripps Marine Facilities Division	San Diego, CA
1969	March 20-21	U. S. Naval Academy	Annapolis, MD
		Chesapeake Bay Institute	
1970	April 30-May 1	University of Washington	Seattle, WA
1971	Oct. 20	Lamont-Doherty Geological Observatory	Palisades, NY
1972		Marine Technology Society	Washington, DC
1973	Nov. 27-28	Texas A&M Marine Facility	Galveston, TX
1974	Nov. 20	Oregon State University	Newport, OR
1975	Oct. 21-22	Lathem Smith Lodge	Sturgeon Bay, WI
		Peterson Boat Works	
1976	Nov. 30-Dec. 1	University of Rhode Island	Narragansett, RI
		Sweet Meadows Inn	
1977	Nov. 1-2	Woods Hole Oceanographic Institution	Woods Hole, MA
1978	Oct. 2	Queen Mary	Long Beach, CA
1979	Oct. 22-23	Scripps Institution of Oceanography	San Diego, CA
		Nimitz Marine Facility	
1980	Oct. 27-28	University of Texas	Port Aransas, TX
		Marine Science Institute	
1981	Oct. 15	Duke University Marine Laboratory	Pivers Island, NC
1982	Sept. 27-28	Harbor Branch Foundation, Inc.	Fort Pierce, FL
1983	Oct. 4-6	University of Hawaii	Honolulu, HI
1984	Oct. 15-17	Bermuda Biological Station	St. Georges, Bermuda
1985	Sept. 25-27	Moss Landing Marine Laboratories	Moss Landing, CA
		Navy Postgraduate School	
		Monterey Marine Aquarium	
		Monterey, CA	
1986	Oct. 8-10	Oceanografia - Veracruz	Veracruz, Mexico
		Mexican Naval Academy	
1987	Oct. 12-14	University of New Hampshire	Durham, NH
1988	Oct. 4-6	University of Washington	Seattle, WA
1989	Oct. 3-5	University of Miami	Miami, FL
1990	Oct. 9-11	LUMCON	New Orleans, LA
		Dauphine Orleans Hotel	
1991	Oct. 10-12	Institute of Ocean Sciences	Sidney, B.C., Canada
		Empress Hotel	
1992	Oct. 20-23	University of Delaware	Lewes, DE
		College of Marine Studies	
1993	Oct. 26-28	Texas A&M University - Galveston	Galveston, TX
		Holiday Inn on the Beach	
1994	Oct. 25-27	Skidaway Institute of Oceanography	Savannah, GA
		Days Inn - Downtown	

RESEARCH VESSEL OPERATORS COMMITTEE  
CHRONOLOGICAL LIST OF MEETINGS

YEAR	DATE(S)	INSTITUTION/FACILITY	LOCATION
1995 1996	Oct. 24-26	Scripps Institution of Oceanography Florida Institute of Oceanography	San Diego, CA St. Petersburg, FL



