

**SUMMARY REPORT OF THE  
ANTARCTIC RESEARCH VESSEL  
OVERSIGHT COMMITTEE  
(ARVOC)**

**MEETING  
20-21 SEPTEMBER 1999**

**ARLINGTON, VIRGINIA**

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**POST MEETING RECOMMENDATIONS**  
**SEPTEMBER 20-21, 1999**

**RECOMMENDATION 1:** ASA SHOULD CONSIDER A THREE STEP PROCESS TO IMPROVE THE TURNAROUND TIME FOR THE ARVOC MEETING PROCEEDINGS. STEPS:

- A) A LIST OF THE CURRENT RECOMMENDATIONS MADE DURING THE MEETING WILL BE SENT TO COMMITTEE MEMBERS/ASA ATTENDEES.
- B) INITIAL DISTRIBUTION OF ROUGH PROCEEDINGS WILL BE AVAILABLE FOR REVIEW AND COMMENT WITHIN TWO MONTHS.
- C) FINAL DISTRIBUTION OF FORMAL PROCEEDINGS WITHIN THREE MONTHS.

**RECOMMENDATION 2:** ASA WILL REVISE THE OCTOBER 1-2, 1998, MINUTES AND SUBMIT THEM FOR COMMITTEE REVIEW/INPUT. AFTER WHICH COMMITTEE APPROVAL WILL BE REQUESTED.

**RECOMMENDATION 3:** D. KARL WILL ACCEPT NOMINATIONS FOR THE THREE EXPIRING ARVOC POSITIONS. NOMINEES WILL BE PRIORITIZED AND ELECTION INFORMATION WILL BE PROVIDED TO NSF/ASA BY DECEMBER 31, 1999. ELECTION WILL BE VIA E-MAIL TO EXPEDITE THE PROCESS. ALSO, NOMINATIONS AND ELECTION OF A VICE CHAIRMAN BY ARVOC WILL OCCUR PRIOR TO THE NEXT ARVOC MEETING.

**RECOMMENDATION 4:** ALL MEMBERS OF ASA ADVISORY COMMITTEES SHOULD RECEIVE A HARDCOPY OF THE *1999-2000 SCIENCE PLANNING SUMMARY*.

**RECOMMENDATION 5:** ASA, WITH OVERSIGHT SUGGESTIONS FROM DRS. CHERESKIN AND FIRING, SHOULD CONSIDER IMPROVING THE OPERATION OF THE ADCP ON THE R/V NATHANIEL B. PALMER BY INSTALLING ACOUSTIC TILES IN THE WELL AND BY INSTALLING THE ASHTECH ADU2. ALSO RECOMMENDED WAS THE INSTALLATION OF SOUND SPEED SENSORS IN THE WELLS OF BOTH VESSELS.

**RECOMMENDATION 6:** ASA SHOULD WORK WITH ARVOC, PAUC, NSF/OPP, ECO, AND AGUNSA, TO ACHIEVE LONG-TERM RESOLUTION OF SHIP/STATION/PORT INTERACTIONS. WITHIN THIS RECOMMENDATION, ARVOC BASICALLY SUPPORTS THE "SIDELL" COMMITTEE TO HELP CRAFT A PHILOSOPHY OF HOW TO SUPPORT THE MULTIPLE REQUIREMENTS OF THE PENINSULA SYSTEM (SHIP AND STATION). ALSO, UNDER THIS RECOMMENDATION IS THE NEED TO CLARIFY THE TRIAD OF LEADERSHIP ON BOARD THE SHIP, AND POSSIBLY ON STATION.

**RECOMMENDATION 7:** A REPRESENTATIVE OF ARVOC SHOULD REVIEW THE SIPS WITH ASA TO MAXIMIZE THE SCHEDULING OF THE USAP RESEARCH VESSELS FOR RESEARCH CRUISES AND TO HELP MINIMIZE SCHEDULING CONFLICTS. (RECOGNIZING THAT NON-NSF PERSONS ARE NOT TO BE INVOLVED PRIOR TO FUNDING DECISIONS, ARVOC DOES OFFER ADDITIONAL TECHNICAL EXPERTISE AND EXPERIENCE DURING THE PROPOSAL STAGE IF NSF/ASA CAN DETERMINE AN APPROPRIATE METHOD.

**RECOMMENDATION 8:** ASA SHOULD CONSIDER ACQUISITION OF A SMALL WORK BOAT FOR USE OUT OF PALMER STATION TO EXTEND THE CURRENT 2-MILE BOATING LIMIT.

**RECOMMENDATION 9:** A LIASON MEMBER FROM PAUC SHOULD ATTEND ALL FUTURE ARVOC MEETINGS AND AN ARVOC REPRESENTATIVE SHOULD ATTEND PAUC MEETINGS.

**RECOMMENDATION 10:** ASA SHOULD CONSIDER THE FOLLOWING IN OUTBRIEFS OF CHIEF SCIENTISTS: a) ECO PARTICIPATION b) SUMMARIZE ALL OUTBRIEFS AND DISTRIBUTE SUMMARIES TO THOSE PARTICIPATING IN THE OUTBRIEFS c) ANNUALLY SUMMARIZE THE TRENDS OF THE OUTBRIEFS FOR ARVOC REVIEW AND DISCUSSION.

**RECOMMENDATION 11:** ASA SHOULD CONSIDER RETURNING CTD SUPPORT TO THE SCIENTISTS WHO REQUEST THAT SUPPORT. ASA SHOULD SEND RSPS TO PIS SIX WEEKS PRIOR TO CRUISE DATE.

**RECOMMENDATION 12:** ASA AND NSF/OPP SHOULD INVESTIGATE USE OF THE USCG ICEBREAKERS TO RESUPPLY PALMER STATION, THEREBY FREEING USAP RESEARCH VESSELS FOR OCEANOGRAPHIC CRUISES. NSF/OPP SHOULD ALSO INVESTIGATE THE COST, ADVANTAGES, DISADVANTAGES OF USING EITHER A USCG VESSEL OR A COMMERCIAL CARRIER TO TRANSPORT HAZARDOUS WASTE NORTH FROM PALMER STATION TO AVOID LOSING TWO MONTHS OF RESEARCH TIME ON THE R/V NATHANIEL B. PALMER OR R/V LAURENCE M. GOULD.

**RECOMMENDATION 13:** ARVOC PLEDGES TO WORK WITH ASA, OR THE NEW CONTRACTOR IF SELECTED, OVER THE NEXT CONTRACT PERIOD, BEGINNING 01 APRIL 2000.

**RECOMMENDATION 14:** ASA AND NSF/OPP SHOULD DEVELOP PLANS TO ARCHIVE HISTORICAL AND MODERN UNDERWAY DATA SETS FOR ACCESS BY SCIENTISTS. ASA AND NSF/OPP'S PLAN SHOULD INCLUDE AN EVALUATION STEP TO ENSURE THE DATA CAN BE QUALITY ASSURED/QUALITY CONTROLLED. I.E., CALIBRATIONS DONE, ETC.

**RECOMMENDATION 15: ARVOC SHOULD IDENTIFY WAYS IN WHICH AGUNSA CAN IMPROVE CUSTOMS PROCESSING, MANIFESTS, AND INVENTORIES.**

**RECOMMENDATION 16: D. KARL WILL DRAFT A SUMMARY OF THE EXECUTIVE SESSION DISCUSSIONS FOR ASA/NSF.**

**RECOMMENDATION 17: ASA SHOULD CONTINUE TO INVESTIGATE THE DUSH 9 WINCH ISSUE AND INFORM THE COMMITTEE OF ITS FINDINGS.**

- 1) DUSH 9 WINCH ISSUES: COST, LOCATION, ETC. AND WILL KEEP THE COMMITTEE INFORMED,**
- 2) REPOSITIONING THE DUSH 4 AND 6 WINCHES, but not before information regarding 4) below is collected and discussed.**
- 3) REDESIGN/RELOCATION OF CABLE RUNS, ON THE R/V LAURENCE M. GOULD.**
- 4) INFORMATION ON THE RELATIVE FREQUENCY OF USE OF THESE WINCHES AND WHICH OTHER FUNCTIONS OF THE VESSEL ARE NEEDED SIMULTANEOUSLY (E.G. IS THE DUSH 4 MOST OFTEN USED WITH THE STARBOARD A-FRAME OR THE STERN A-FRAME? WITH INCUBATORS ON THE DECK, WHICH WINCH IS USED MOST OFTEN?)**

**RECOMMENDATION 18: ASA SHOULD INVESTIGATE MEASURES TO DAMPEN THE MOTION OF SEAWATER IN THE R/V LAURENCE M. GOULD AQUARIUM TANKS. C. KENNEDY WILL CONTACT JIM ST. JOHN, NAVAL ARCHITECT, TO DETERMINE THE SIZE OF MESH NEEDED TO PREVENT SLOSHING/WAVES.**

**RECOMMENDATION 19: ASA IS TO LOOK INTO TV CABLE DROPS IN CABINS AGAIN AS ARVOC BELIEVES THE CABLEING WOULD BOOST MORAL. J. HOLIK WILL INVESTIGATE THE COST AND POSSIBILITY OF PUTTING IN MORE TV CABLE DROPS.**

**RECOMMENDATION 20: ASA WILL CONTINUE TO INVESTIGATE THE RAD VAN LOCATION SITE OPTIONS AND THIS WILL BE A TOPIC FOR THE NEXT ARVOC MEETING.**

**RECOMMENDATION 21: J. HOLIK WILL GET THE NOISE LEVEL DATA (MATLAB) TO D. KARL FOR DATA DISSIMULATION. ASA SHOULD HAVE SHIP NOISE DATA EVALUATED FOR ITS IMPACT ON THE MECHANORECEPTORS OF MARINE ORGANISMS.**

**RECOMMENDATION 22: ASA SHOULD RESOLVE THE BATHY COLOR PRINTER PROBLEM.**

**RECOMMENDATION 23: ASA SHOULD OBTAIN THE UNOLS VIDEO AND BETTER SAFETY VIDEOS.**

**RECOMMENDATION 24: ASA SHOULD DRAFT VESSEL E-MAIL USE POLICY FOR REVIEW AND COMMENT BY ARVOC.**

**RECOMMENDATION 25: ASA SHOULD DRAFT A POLICY STATING HOW ASA WILL SUPPORT THE SEABEAM SYSTEM.**

**RECOMMENDATION 26: ASA SHOULD REVIEW AND IMPROVE ITS TRAVEL TICKETING PROCEDURE TO BETTER SERVE THE SCIENTISTS.**

**RECOMMENDATION 27: ARVOC SUPPORTS PART OF THE PLANNING MEETING PROPOSAL OF PAUC AND MAUC AND SHOULD PROVIDE ASA WITH ITS POSITION FORMALLY.**

**RECOMMENDATION 28: ASA SHOULD PROVIDE DATA FROM THE KNUDSON EQUIPMENT ABOARD THE R/V LAURENCE M. GOULD TO G. DOMACK/ARVOC FOR ANALYSIS COMPARISON WITH THE BATHY SYSTEM DATA.**

**RECOMMENDATION 29: ASA SHOULD DISTRIBUTE TO ARVOC LISTS OF "PURCHASED" AND "TO PURCHASE" CAPITAL EQUIPMENT FOR REVIEW AND COMMENT.**

**RECOMMENDATION 30: ARVOC SHOULD DEVELOP A POSITION ON UNDERWAY DATA SETS AND DATA COLLECTED ON "CRUISES OF OPPORTUNITY" FOR ASA AND NSF/OPP REVIEW.**

**RECOMMENDATION 31: ASA SHOULD SEND A REPRESENTATIVE TO THE SHALLOW DRILLING INITIATIVE MEETING 4-6 FEBRUARY 2000. (N.B., subsequent to the ARVOC meeting, the shallow drilling meeting was postponed. A new date has not been established.)**

**RECOMMENDATION 32: ASA SHOULD REVIEW WITH NSF/OPP THE PURCHASE AND USE OF DEFIBRILLATORS BY EMTS TO TREAT HEART ATTACK PATIENTS ABOARD THE R/V LAURENCE M. GOULD AND R/V NATHANIEL B. PALMER.**

**ARVOC Meeting Agenda**  
**September 20-21, 1999**  
**NSF Room 340**  
**Arlington, VA**

- |      |   |  |
|------|---|--|
| 0800 | <i>Coffee/tea/muffins</i>   |  |
| 0830 | <i>Welcome, Introductions</i><br>Review October 1, 1998 minutes<br>Review of Today's Agenda<br>Review of ARVOC Mission Statement<br>Review of NBP Rebid Meeting March 29, 1999                        | D. Karl  |
| 0915 | <i>State of NSF</i>   | A. Sutherland  |
| 0945 | <i>State of ASA</i><br>a) GPRA Survey; Grantee Outbriefs<br>b) ASA Science Support and Marine Science   | S. Kottmeier<br>C. Shepherd                                |
| 1030 | <i>Break</i>  |  |
| 1045 | <i>Major Changes/Improvements to the Vessels</i><br>a) TeraScan and Inmarsat B<br>b) R/V LAURENCE M. GOULD ADCP<br>c) R/V NATHANIEL B. PALMER Potable Water<br>d) Rock Removal at Palmer Station Pier | J. Holik<br>J. Holik/T. Chereskin<br>J. Holik<br>R. Nugent |
| 1200 | <i>Lunch on your own</i><br><i>A talk by Bob Wharton on Dry Valley Research will be presented</i>   |  |
| 1300 | <i>Vessel Scheduling/ Interfacing with Palmer Station</i><br>a) Background<br>b) Review of Proposed Policy<br>c) Discussion   | C. Shepherd<br>A. Hickey/R.Nugent<br>Committee/All         |
| 1430 | <i>Break</i>  |  |
| 1445 | <i>AICC-UNOLS Report</i>  | J. Swift   |
| 1500 | <i>RVIB Rebid, Status and Discussion</i><br>a) Schedule for RVIB Procurements<br>b) Technical Requirements  | C. Kennedy   |
| 1630 | <i>Recap of Day's Events</i>  | D. Karl  |



1645 *Adjourn and Executive Session (ARVOC members only)*

1800 – 2000 *UNOLS will host a wine and cheese party from 6:00 - 8:00pm at the Arlington Hilton & Tower, Gallery I (Second floor) 950 N. Stafford St. (our hotel). ARVOC is welcome to attend.*

**Day 2, Tuesday Sept 21**

0800 *Coffee/tea/muffins*

0830 *Discussion/Recap of Any Unresolved Issues from September 20* D. Karl

0900 *Report on Last Year's Action Items* J. Holik

1000 *Break*

1015 *IT Report and Email on the Vessels* D. Leger

1030 *SeaBeam Update* D. Leger

1045 *ASA Travel* D. Norris

1115 *NSF Sponsored Interdisciplinary Antarctic Orientation* S. Kottmeier

1130 *Capital Equipment Procurement Plans* J. Holik

1200 *Lunch on your own*

1300 *Capital Equipment Procurement Plans (cont'd)*

1330 *Science of Opportunity* Holik/Doyle/ Committee

1400 *Planning Next Meeting, Venue, Frequency* D. Karl  
*Rotation of Committee Members with Expiring Terms*  
*Other*

1500 *Adjourn or Executive Session #2 (if necessary)*

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**Invited Guests:**

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## ARVOC SEPTEMBER 20, 1999

Executive Session held September 20. No minutes included.

**8:30 AM Meeting convened**

### **I Welcome, Introductions**

D. Karl opened the meeting, welcomed members and guests, and reviewed the day's agenda.

### **Committee Business:**

D Karl referred to the EOS article (Appendix 1) dated February 6, 1996 and noted that the article's content continues to be valid. The article states that this nine member committee provides recommendations and advice about shipboard equipment and instrumentation, computer systems, scheduling issues, staffing, communications, space allocation, and other issues that can improve the research capability of the program. One way the committee is able to achieve its goals as described in the article, is to participate in regularly scheduled meetings, review and have input to minutes generated from the meetings. In the past, minutes have been drafted without full committee review/input prior to presentation and request for approval at the bi-annual meetings. To improve this process, **RECOMMENDATION 1: ASA SHOULD CONSIDER A THREE STEP PROCESS TO IMPROVE THE TURNAROUND TIME FOR THE ARVOC MEETING PROCEEDINGS. STEPS:**

- A) A LIST OF THE CURRENT RECOMMENDATIONS MADE DURING THE MEETING WILL BE SENT TO COMMITTEE MEMBERS/ASA ATTENDEES.**
- B) INITIAL DISTRIBUTION OF ROUGH PROCEEDINGS WILL BE AVAILABLE**

**FOR REVIEW AND COMMENT WITHIN TWO MONTHS.**

**C) FINAL DISTRIBUTION OF FORMAL PROCEEDINGS WITHIN THREE MONTHS.**

D. Karl reported the October 1-2 ARVOC meeting held aboard the R/V NATHANIEL B. PALMER was successful and that, if circumstances allow, a future ARVOC meeting may be held aboard the R/V LAURENCE M. GOULD. Minutes from this October meeting require further revision before committee approval.

**RECOMMENDATION 2: ASA WILL REVISE THE OCTOBER 1-2, 1998, MINUTES AND SUBMIT THEM FOR COMMITTEE REVIEW/INPUT. AFTER-WHICH COMMITTEE APPROVAL WILL BE REQUESTED.**

### **Committee memberships:**

There are three ARVOC members with expiring terms (Bruce Sidell, Ken Smith, and Walker Smith) According to the ARVOC charter, the committee should nominate and elect new committee members to replace those with expiring terms. **RECOMMENDATION 3: D. KARL WILL ACCEPT NOMINATIONS FOR THE THREE EXPIRING ARVOC POSITIONS. NOMINEES WILL BE PRIORITIZED AND ELECTION INFORMATION WILL BE PROVIDED TO NSF/ASA BY DECEMBER 31, 1999. ELECTION WILL BE VIA E-MAIL TO EXPEDITE THE PROCESS. ALSO, NOMINATIONS AND ELECTION OF A VICE CHAIRMAN BY ARVOC WILL OCCUR PRIOR TO THE NEXT ARVOC MEETING.**

### **II State of NSF**

A. Sutherland reported on the recent Presidential visit to New Zealand. Drs. Rita Colwell and Karl Erb visited the

vessel and were in attendance during the President's visit. J. Holik reported that he and others from the R/V NATHANIEL B. PALMER attended the President's speech (Appendix 2) at the CDC in Christchurch.

A. Sutherland informed the ARVOC of plans to transport the South Pole Physician back to the U.S. on or around October 25. A. Sutherland reported briefly on the successful South Pole air-drop that put equipment and supplies at the station.

S. Borg discussed the recent declassification of satellite imagery from the 1970s and 1980s. The imagery of the McMurdo Dry Valleys released was 8 meter resolution, better than the SPOT satellite imagery. Geometrically rectified imagery will be released in another eight to ten days. In a few weeks, a digital elevation model with 20 m vertical resolution will be produced. There may be some images of the Antarctic Peninsula of interest, but 8 meter resolution may not be good enough. The MEDEA Committee, a global fiducial program, defines sites for acquisition of imagery for scientific research.

D. Karl requested that ASA/NSF/OPP pursue obtaining clearance to conduct research in Chilean territorial waters. A. Sutherland stated that it was difficult to obtain such clearance from Chile and that A. Leventer's cruise was successful in doing so in the past. Other countries, such as New Zealand, have been more willing to grant this clearance. Most recently S. Cande's cruise was cleared by New Zealand. Typically without clearance you can test equipment, but can't publish the results. The Law of the Sea governs research clearances in economic zones. D. Karl concluded by stating that this had a negative implication for underway data

collection from departure/to arrival at foreign ports.

D. Fisher informed the Committee that the FY 2000 budget was in flux. The latest actions have NSF's budget increasing by \$4 million in the Senate and decreasing by \$10 million in the House. A continuing resolution amounting to 85% of FY 1999 may be adopted until the FY 2000 budget is approved.

D. Fisher also informed the Committee that a Senate bill has language requiring that the RVIB must either be built new in the U.S. or an existing vessel modified in the U.S. This may hurt competition and impact schedule for the RVIB procurement.

D. Peacock informed the Committee that during the NSF/OPP Science Retreat an Instrument R & D initiative was proposed for as early as FY 2000, depending upon the budget.

D. Peacock briefed the Committee on the Antarctic Pack Ice Seals (APIS) Cruise and noted it will be the first cruise to use helicopters aboard the R/V NATHANIEL B. PALMER, at an estimated cost of \$500K. Use of helicopters requires floats to be installed on the A-Star helicopters and "dunker training" for all passengers.

D. Peacock cited that NSF/OPP received many proposals to review for calendar year/FY 2002.

D. Peacock informed the Committee on the two major contracts pending NSF/OPP decision. C. Kennedy briefed the Committee on the RVIB procurement later in the meeting. The Antarctic Support Contract review was in its final throes. The decision was likely to be delayed one to two weeks because the

NSF Contracts Policy and Oversight requested more information from the proposing companies.

D. Peacock briefed the Committee on the development of Dr. Karl Erb's scientific agenda. At the Science Retreat the Instrument Development Program and access to polar regions year-round were the top two recommendations for the short-term. Dr. Erb's approach is incremental, with a focus this year (FY 1999) on remote sensing and access to classified imagery, that culminated in the recent release of imagery of the McMurdo Dry Valleys.

D. Peacock concluded by informing the Committee that OPP had successfully navigated through several nasty problems: 1) air drop of medical supplies and early extraction of the South Pole Physician with breast cancer, 2) maintenance of schedule and budget for construction of SPSE/SPSM, 3) Arctic politics, and 4) President Clinton's visit to New Zealand. The Ocean Drilling Program (ODP) is drilling in Prydz Bay without an escort vessel in January/February 2000. ODP also has proposals for future drilling in the Ross Sea. Last, OPP has been or is involved in several cross-directorate programs at NSF: 1) MRI, 2) MRE, 3) Life in Extreme Environments (LExEn), 4) biocomplexity in the environment, and 5) information technology, which are discussed on the NSF home page.

S. Jacobs asked whether a U.S. ship, other than the NBP, will visit New Zealand this year. A. Sutherland stated that the best opportunity this year was the USCGC POLAR STAR. Dr. Erb has pushed a request up to the Joint Chiefs of Staff on this subject.

### III State of ASA:

S. Kottmeier presented the results of the Research Support Facility Survey (RSFS) from last season. (Appendix 3) There was an 82% response rate from the grantees and plans are for ASA to issue a report from this data for committee review and analysis. These data will be used in GPRA reporting by OPP as well as being a useful management tool. In addition to collecting information through the RSFS, ASA and NSF began last May conducting telephone debriefs with cruise Chief Scientists. These debriefs allow the Principal Investigator, ARVOC, NSF and ASA to discuss cruise activities. While arranging the most convenient teleconference times is difficult, the results have been worth the effort. ARVOC members will discuss the teleconference debriefs during executive session.

Vessel food was discussed and the committee asked if ASA might be taking over the food service. C. Kennedy noted that the food service has not been changed in the Request for Proposal. Thus there are no current plans for ASA to take over this function. J. Holik added that ASA is continuing dialogue with ECO in an effort to improve the quality of food on the R/V LAURENCE M. GOULD.

C. Shepherd continued the State of ASA discussion by informing the committee of recent staff changes. (Appendix 4)

Also, C. Shepherd reported that the *1999-2000 Science Planning Summary* is now complete and each Principal Investigator has been mailed his/her copy. This summary contains a synopsis of the USAP research projects consisting of 140 projects and approximately 750 deploying investigators and technicians. The 1999-

2000 Science Planning Summary is also available on website:  
[www.asa.org/sps99/99sps/home.htm](http://www.asa.org/sps99/99sps/home.htm)

**RECOMMENDATION 4: ALL MEMBERS OF ASA ADVISORY COMMITTEES SHOULD RECEIVE A HARDCOPY OF THE 1999-2000 SCIENCE PLANNING SUMMARY.**

Phase I of the Electronic Support Planner (ESP) (Appendix 6) has effectively been completed and ASA is starting on Phase II, per C. Shepherd. B. Sidell was one of the first grantees to use the ESP for the upcoming season and reported that it was easier to work with than last year's version and that it wasn't any more work than the conventional methods used in prior years. The website for ESP is <http://gentoo.asa.org>

ASA is in the process of developing a science prospectus for McMurdo Station. After the McMurdo Station Science prospectus is completed, plans are to develop a South Pole Station and research vessels prospectus. Items that might be included in the vessel science prospectuses are: schedules, ship tracks, links to other home pages. M. Haban, Technical Writer, Science Division, will be the lead on this project and will be speaking with ARVOC, scientists, employees, and others to bring all the information into a more current and formal frame. (Appendix 6)

C. Shepherd closed by discussing the possibility of ASA strengthening its support of grantees by developing agreements with other organizations, i.e., Woods Hole Oceanographic Institution (WHOI), University of Rhode Island, University of Miami. This is still in the planning stage and ARVOC will be kept

informed if these discussions lead to more definite actions.

#### **IV Major Changes/Improvements to the Vessels**

J. Holik reported on:

##### **a) TeraScan and Inmarsat B**

J. Holik informed the Committee that ASA has installed a new TeraScan system on the R/V NATHANIEL B. PALMER. It receives imagery from USAF F-12, 13, and 14 satellites, ocean color imagery from the SeaStar satellite carrying the SeaWiFS instrument, and infrared and visible imagery from the NOAA 12, 14, and 15 satellites. ASA will provide the Arctic and Antarctic Research Center (AARC), Scripps Institution of Oceanography with the imagery received by the NBP's TeraScan system.

The Committee and participants discussed the significance of the TeraScan system on the R/V NATHANIEL B. PALMER. D. Karl suggested that the SeaWiFS system be operated on a "cruise of opportunity" basis. A. Sutherland stated that a proposal might be required for the system to be operated. A. Sutherland asked how easy was the system to operate? D. Leger indicated that regularly scheduled passes could be taken by trained ECO mates, ASA staff, and scientists. He noted that the upcoming APIS cruise will use the TeraScan system for tracking ARGOS transmitters on seals. S. Cande asked whether training was available to interpret sea ice imagery. D. Leger indicated that an animation sequence was loaded for this training.



J. Holik noted that SeaWifs imagery is available to any NSF funded scientist who requests it. However, since SeaWifs costs \$25,000 per license, the 365 day coverage isn't happening at this time because the application for this imagery must be tied into a specific grant.

## **b) ADCP (Acoustic Doppler Current Profiling)**

Dr. Teresa Chereskin updated the Committee on the data collected from the Acoustic Doppler Current Profiler (ADCP) on the R/V NATHANIEL B. PALMER over the last nine months, including instrument performance. In Dr. Chereskin's opinion the data collected exceeded her expectations but it was also noted that the recent transit was in very calm weather.

Dr. Teresa Chereskin continued by discussing her field test results from the Talcahuano to Punta Arenas transit on the R/V LAURENCE M. GOULD in September. Dr. Chereskin stated that the RDI 150 kHz narrowband ADCP:

- exceeded expectations under extreme calm conditions and good backscattering: first bin at 22 m, maximum usable range of 360 m (range has been less on Drake Passage crossing). Acoustic ringing evident only in first bin (22 m); this is typical of most shipboard ADCPs. Recommend using an 8 m blank. Acoustic tiles in well seem to work!
- very stable calibration from bottom track: small misalignment correction after using Ashtech ADU2 heading corrections. Gain correction of about 10% because transducer is in glycol solution. Sound speed sensors will make a big difference!!

(Appendix 7) ADCP display, processing logon, Palmer Shuttle tracks, zonal and meridional velocity graphs)

Beta testing of UH processing software. (During the transit, processing software was installed and tested. This was the software package put together by Dr. Eric Firing.)

Dr. Chereskin's recommended the following actions to help ensure good results from the ADCP:

- Install acoustic tiles in sonar well on the R/V NATHANIEL B. PALMER
- Install an Ashtech ADU2 on the R/V NATHANIEL B. PALMER
- Install sound speed sensors in the well on both the R/V NATHANIEL B. PALMER and R/V LAURENCE M. GOULD
- Establish agreed-upon routines for ASA support, such as initial system checkout at start of cruise, daily systems checks, on-board automated processing. All of these items should be designed to be very "low overhead" for ASA personnel to carry out.
- Training in the above procedures, either through training sessions in the U.S., sending personnel from Scripps labs to an NBP or LMG port for system checkout and training at the dock, participation in occasional (e.g., yearly) cruise, as space permits.
- Prompt transmission of data to Scripps labs, for post-processing and dissemination to NODC and to Website. **TRANSFER PROTOCOL NEEDS TO BE ESTABLISHED AND MAINTAINED.**
- Periodically analyze the growing dataset to address scientific questions.

**RECOMMENDATION 5: ASA, WITH OVERSIGHT SUGGESTIONS FROM DRS. CHERESKIN AND FIRING, SHOULD CONSIDER IMPROVING THE OPERATION OF THE ADCP ON THE R/V NATHANIEL B. PALMER BY**

**INSTALLING ACOUSTIC TILES IN THE WELL AND BY INSTALLING THE ASHTECH ADU2. ALSO RECOMMENDED WAS THE INSTALLATION OF SOUND SPEED SENSORS IN THE WELLS OF BOTH VESSELS.**

D. Karl thanked Dr. Chereskin for her presentation and noted that she, Drs. Cande and Peterson are examples of how scientists can use the "window of opportunity" to collect underway data.

**c) R/V NATHANIEL B. PALMER  
Potable Water**

J. Holik reported that plans are to replace the piping on the R/V NATHANIEL B. PALMER. However, until this can be accomplished, C. Graber, ASA, Safety, Environment, Health, will work with M. Gisclair, ECO, to determine how best to meet EPA standards. H. Mahar, NSF/OPP, has been looking into any possible chemical hazards of the water. J. Holik noted that ECO is aware of the problem and will work to remedy the situation. Water filters will be used as a temporary fix.

**d) Rock removal at Palmer  
Station Pier**

R. Nugent reported the rock removal at Palmer Station went according to plan. Divers were able to determine which rocks were responsible for the dents to the R/V LAURENCE M. GOULD. Explosives were detonated successfully to remove the rocks and the pier was not affected by the blasting.

**e) Other-**

J. Holik reported on the recent Punta Arenas warehouse reorganization efforts. Efforts included retro-grading items back to the United States, identifying capital equipment items, and identifying items that could be stored outside or off-site. An off-site storage area would only be selected after clean-up/reorganization efforts are complete and it's determined that storage needs require it. Marine Operations items were segregated by area of use, i. e., Palmer Station items, vessel items.

Radioisotope vans are being reconditioned by ASMAR in Punta Arenas.

**V Vessel Scheduling/Interfacing  
with Palmer Station**

Vessels must provide support to scientists, transport personnel to/from Palmer Station, and provide cargo logistics, all within a tight schedule that is weather dependent. A. Hickey explained that last year was the first full year for the R/V LAURENCE M. GOULD and it seemed there was a push to have more science take place than in prior years. This sometimes put a rush on port calls at both Punta Arenas and Palmer Station. Ships' scheduling was made difficult this year to allow for weather, to give adequate time to ASA staff for their tasking, to meet the needs of Agunsa and ECO, and to still accomplish science. Marine Operations is working to develop a plan that will improve scheduling/interfacing. R. Nugent noted that anytime the vessels visit the station population doubles. Therefore, the more notice the station has, the better they are able to adapt. Also, asking a Palmer Station grantee to leave earlier than scheduled is

a hardship for that grantee. Suggestions included:

- 1) an Ad Hoc committee that will help determine what is the best vehicle for educating a new scientist going down to the area
  - 2) bringing the ASA MPC/Station Manager into the Denver office to train/educate him/her on how the system works
  - 3) better planning so that fewer trips into Palmer Station are required, i.e., maximize the transfer of cargo/personnel so that this task doesn't impact the science parties
- B. Sidell volunteered to work on the Ad Hoc group to improve communications between vessels and Palmer Station Operations. He asked that an Ad Hoc committee be formed with representatives from both the vessels and the station to develop a simple set of rules to work from.

A. Sutherland mentioned the proposed change to the Chief Scientist Letter that will add a short paragraph addressing vessel/station interaction. B. Sidell will be copied on this change for input from the Ad Hoc group. (Appendix 8)

**RECOMMENDATION 6: ASA SHOULD WORK WITH ARVOC, PAUC, NSF/OPP, ECO, AND AGUNSA, TO ACHIEVE LONG-TERM RESOLUTION OF SHIP/STATION/PORT INTERACTIONS. WITHIN THIS RECOMMENDATION, ARVOC BASICALLY SUPPORTS THE "SIDELL" COMMITTEE TO HELP CRAFT A PHILOSOPHY OF HOW TO SUPPORT THE MULTIPLE REQUIREMENTS OF THE PENINSULA SYSTEM (SHIP AND STATION). ALSO, UNDER THIS RECOMMENDATION IS THE NEED TO CLARIFY THE TRIAD OF LEADERSHIP ON BOARD THE SHIP, AND POSSIBLY ON STATION.**

## VI AICC-UNOLS Report

J. Swift reported on the UNOLS Arctic Icebreaker Coordinating Committee meeting and the USCGC HEALY. (Appendix 9)

## VII RVIB Rebid, Status and Discussion

C. Kennedy referred to the March 1999 ad hoc ARVOC meeting to discuss the RVIB Rebid (Appendix 10). Additionally, an e-mail between A. Sutherland and D. Karl and a paper by S. Borg discussing long range ship planning (beyond the R/V NATHANIEL B. PALMER Rebid) are provided as Appendix 10a.

C. Kennedy did list the following items that were a result of the March meeting.

- UPS on the new rebid will be two systems that can be switched between them
- removal of the science freezer from the vessel; more square footage was requested for the science lab equal to the freezer square footage
- 42" moon pool on the vessel will be a source of uncontaminated sea water, a site to deploy transponders, and, potentially used for shallow drilling
- temperature controlled rooms to be maintained with separate and better temperature control
- potable water will meet USAP standards
- noise control
- two more bunks (41 total science party)
- microscope room 180 sq. ft.
- new dark room
- acoustic capability to support 3.5 kHz and greater

- owner furnished multibeam system with a higher resolution than the 2112 SeaBeam
- Simrad 120
- crane with a longer reach, higher capacity has been requested, with a crane speed specified
- 12 knots speed in open water with 75 day endurance

(The ramp in the stern was not included in the RFP, as this is not possible due to equipment internal to transom on the R/V NATHANIEL B. PALMER. Rounding the transom versus installing a ramp in the stern is being considered.)

C. Kennedy noted that having used the R/V NATHANIEL B. PALMER and developing the R/V LAURENCE M. GOULD allowed ASA to develop a very good RFP. If committee members have further questions, they should direct lab questions to A. Doyle and RFP questions to C. Kennedy. (Appendix 11-Technical Requirements)

C. Kennedy reviewed the RVIB procurement schedule:  
 7/28/99- ASA released RFP  
 11/18/99- Proposals due  
 4/18/00- Recommend to NSF for award  
 4/30/00- Approval to proceed received from NSF  
 5/16/00- Contract award

New build/major conversion  
 4/27/00-10/23/02 Charter would start when ship is built

Minor modification to an existing ship  
 3/12/02

Charter is six years with options for four additional years.

**8:30 AM September 21**

## Executive Session Topics

D. Karl reported on last evening's Executive Session.

The session topics included ship planning, long-range planning, and interaction with Palmer Station:

1) ARVOC will support the Palmer Area User Committee memo written by L. Quetin. Small, regularly scheduled meetings (May/June) will be held to resolve any issues. It's believed interaction during these smaller meetings will allow the scientists to work through these types of issues and to determine the best resolutions.

2) ARVOC suggested a subcommittee that would help review the SIPS to perhaps identify cruises that might need to be rescheduled to a different time of the year. The subcommittee could sort through some of the timing difficulties to help maximize the best schedule and minimize the conflicts. Or perhaps, an informational page could be added to the SIPS that list proposed cruises. This information would help identify scheduling conflicts and also identify when exactly grantees need to go to the ice.

**RECOMMENDATION 7: A REPRESENTATIVE OF ARVOC SHOULD REVIEW THE SIPS WITH ASA TO MAXIMIZE THE SCHEDULING OF THE USAP RESEARCH VESSELS FOR RESEARCH CRUISES AND TO HELP MINIMIZE SCHEDULING CONFLICTS.**

**(RECOGNIZING THAT NON-NSF PERSONS ARE NOT TO BE INVOLVED PRIOR TO FUNDING DECISIONS, ARVOC DOES OFFER ADDITIONAL TECHNICAL EXPERTISE AND EXPERIENCE DURING THE PROPOSAL STAGE IF NSF/ASA CAN**

**DETERMINE AN APPROPRIATE METHOD.)**

A. Sutherland briefly explained how the selection and scheduling process is developed. The proposals are received by NSF/OPP; ASA gives input regarding inventories, etc. A. Sutherland drafts a preliminary schedule and meets with NSF staff to review each proposal that may be eligible for funding purposes. The NSF refines and works through the proposals between June and December; ASA reviews proposals selected by NSF. The NSF approves grants and sometime around March, a detailed schedule is released. The Marine Manager, ASA, then works with the funded grantees to work out the scheduling details. Because there may be conflict of interest issues, PIs aren't allowed to participate in the process until after NSF/OPP has selected the events.

3) To alleviate some of the problems associated with off load/on load of supplies during Palmer Station port calls, purchase of a vessel larger than zodiacs but smaller than the R/V NATHANIEL B. PALMER or the R/V LAURENCE M. GOULD might be a consideration. This vessel could be based and used near Palmer Station for the use at sites greater than two miles. **RECOMMENDATION 8: ASA SHOULD CONSIDER ACQUISITION OF A SMALL WORK BOAT FOR USE OUT OF PALMER STATION TO EXTEND THE CURRENT 2-MILE BOATING LIMIT.**

4) The ARVOC supports the Ad Hoc group led by B. Sidell considering vessel/Palmer Station interactions. R. Ross will represent ARVOC and Wade Jeffrey will also be a part of the group with a representative from PAUC to be decided later. **RECOMMENDATION 9: A**

**LIASON MEMBER FROM PAUC SHOULD ATTEND ALL FUTURE ARVOC MEETINGS AND AN ARVOC REPRESENTATIVE SHOULD ATTEND PAUC MEETINGS.**

5) The Executive Committee thanked S. Kottmeier for his work scheduling the after cruise teleconference de-briefs, ARVOC suggested that ECO be added as a participant in the teleconference call. M. Gisclair agreed to participate. Future out-briefs will include Chief Scientist/ ARVOC/NSF/ASA/ECO.

Minutes/notes from the teleconference will be written up and a summary of the teleconferences will be available to ARVOC members. **RECOMMENDATION 10: ASA SHOULD CONSIDER THE FOLLOWING IN OUTBRIEFS OF CHIEF SCIENTISTS: a) ECO PARTICIPATION b) SUMMARIZE ALL OUTBRIEFS AND DISTRIBUTE SUMMARIES TO THOSE PARTICIPATING IN THE OUTBRIEFS c) ANNUALLY SUMAMARIZE THE TRENDS OF THE OUTBRIEFS FOR ARVOC REVIEW AND DISCUSSION. Begin here**

Two examples of suggestions from these after cruise outbriefs were 1) CTD support might be improved if this function were returned to the scientists who request the CTDs and 2) the effectiveness of the Research Support Plans would be improved if these were more timely. This would allow time for correcting any omissions or misunderstandings, etc. **RECOMMENDATION 11: ASA SHOULD CONSIDER RETURNING CTD SUPPORT TO THE SCIENTISTS WHO REQUEST THAT SUPPORT.**

6) The Committee asked if, in an effort to improve logistics/scheduling, could the U.S. Coast Guard resupply Palmer Station

or perhaps take out the hazardous waste?  
A. Sutherland noted that Palmer Station docking wouldn't allow for a vessel the size of the U.S. Coast Guard vessel and that also the cost could be prohibitive.

Transporting the hazardous waste commercially would be the ideal solution but a commercial carrier hasn't been an option thus far. **RECOMMENDATION 12: ASA AND NSF/OPP SHOULD INVESTIGATE USE OF THE USCG ICEBREAKERS TO RESUPPLY PALMER STATION, THEREBY FREEING USAP RESEARCH VESSELS FOR OCEANOGRAPHIC CRUISES. NSF/OPP SHOULD ALSO INVESTIGATE THE COST, ADVANTAGES, DISADVANTAGES OF USING EITHER A USCG VESSEL OR A COMMERCIAL CARRIER TO TRANSPORT HAZARDOUS WASTE NORTH FROM PALMER STATION TO AVOID LOSING TWO MONTHS OF RESEARCH TIME ON THE R/V NATHANIEL B. PALMER OR R/V LAURENCE M. GOULD.**

7) ARVOC is anxious to hear about the rebid of the contract and will continue to assist ASA or whomever is the new contractor with advice and support. **RECOMMENDATION 13: ARVOC PLEDGES TO WORK WITH ASA, OR THE NEW CONTRACTOR IF SELECTED, OVER THE NEXT CONTRACT PERIOD, BEGINNING 01 APRIL 2000.**

8) ARVOC will continue to participate in GPRA and asked if the list of publications can be included in the survey.

9) ARVOC believes underway measurements should be archived; including historic and modern underway data sets. D. Karl asked if there is a way the historical data sets can be made available to the science community at

large? **RECOMMENDATION 14: ASA AND NSF/OPP SHOULD DEVELOP PLANS TO ARCHIVE HISTORICAL AND MODERN UNDERWAY DATA SETS FOR ACCESS BY SCIENTISTS. ASA AND NSF/OPP'S PLAN SHOULD INCLUDE AN EVALUATION STEP TO ENSURE THE DATA CAN BE QUALITY ASSURED/QUALITY CONTROLLED. I.E., CALIBRATIONS DONE, ETC.**

10) Over the past year, with both vessels making port calls at the same time in Punta Arenas, personnel shortages within Agunsa, and requests for faster paperwork (customs papers, manifests, inventories) turnaround, there seems to have been a deterioration in service from the warehouse agent and this has sometimes resulted in delays to research. The committee asked that ASA/NSF be aware of their concerns and look at ways to improve the situation.

**RECOMMENDATION 15: ARVOC SHOULD IDENTIFY WAYS IN WHICH AGUNSA CAN IMPROVE CUSTOMS PROCESSING, MANIFESTS, AND INVENTORIES.**

**RECOMMENDATION 16: D. KARL WILL DRAFT A SUMMARY OF THE EXECUTIVE SESSION DISCUSSIONS FOR ASA/NSF.**

## **VIII Action Items- October 1-2, 1998**

Bolded items still require action.

Action 1 Minutes of the May 28-29, 1998 meeting are published and posted on the ASA web site.

Action 2 The ADCP has been installed on the R/V LAURENCE M. GOULD. Testing was successfully completed.

Action 3 – J. Holik did keep ARVOC members informed as the winch issues were resolved. **RECOMMENDATION 17:**

ASA SHOULD CONTINUE TO INVESTIGATE THE DUSH 9 WINCH ISSUE AND INFORM THE COMMITTEE OF ITS FINDINGS.

- 1) DUSH 9 WINCH ISSUES: COST, LOCATION, ETC. AND WILL KEEP THE COMMITTEE INFORMED,
- 2) REPOSITIONING THE DUSH 4 AND 6 WINCHES, but not before information regarding 4) below is collected and discussed.
- 3) REDESIGN/RELOCATION OF CABLE RUNS, ON THE R/V LAURENCE M. GOULD.
- 4) INFORMATION ON THE RELATIVE FREQUENCY OF USE OF THESE WINCHES AND WHICH OTHER FUNCTIONS OF THE VESSEL ARE NEEDED SIMULTANEOUSLY (E.G. IS THE DUSH 4 MOST OFTEN USED WITH THE STARBOARD A-FRAME OR THE STERN A-FRAME? WITH INCUBATORS ON THE DECK, WHICH WINCH IS USED MOST OFTEN?)

ACTION 4 –J. Holik will arrange to have aquarium tanks filled to 2/3 full for a test to see if water sloshes while the vessel moves through water.

**RECOMMENDATION 18: ASA SHOULD INVESTIGATE MEASURES TO DAMPEN THE MOTION OF SEAWATER IN THE R/V LAURENCE M. GOULD AQUARIUM TANKS. C. KENNEDY WILL CONTACT JIM ST. JOHN, NAVAL ARCHITECT, TO DETERMINE THE SIZE OF MESH NEEDED TO PREVENT SLOSHING/ WAVES.**

Action 5 –To date, TV cable drops have not been put into the cabins.

**RECOMMENDATION 19: ASA IS TO LOOK INTO TV CABLE DROPS IN CABINS AGAIN AS ARVOC BELIEVES THE CABLEING WOULD BOOST MORAL. J. HOLIK WILL INVESTIGATE**

**THE COST AND POSSIBILITY OF PUTTING IN MORE TV CABLE DROPS.**

Action 6 – ARVOC members are on the listserver to receive the MO-SITREPS.

Action 7 –ASA will look into the possibility of having radioisotope use inside the vessel as opposed to radioisotope use only in the vans outside.

**RECOMMENDATION 20: ASA SHOULD CONTINUE TO INVESTIGATE THE RAD VAN LOCATION SITE OPTIONS AND THIS WILL BE A TOPIC FOR THE NEXT ARVOC MEETING.**

Action 8 –ASA will study the noise level in the Aquarium Room and work with B. Kluckhohn to determine more about what will work well. Data were collected, however, ASA was unable to download the information.

**RECOMMENDATION 21: J. HOLIK WILL GET THE NOISE LEVEL DATA (MATLAB) TO D. KARL FOR DATA DISSIMULATION. ASA SHOULD HAVE SHIP NOISE DATA EVALUATED FOR ITS IMPACT ON THE MECHANORECEPTORS OF MARINE ORGANISMS.**

Action 9: J. Holik prepared oceanography and equipment list spreadsheets similar to the MG&G spreadsheet. The equipment list status report is being posted to ASA's website.

Action 10: D. Michaelson has developed a turnover program for the various technicians and has prepared/developed better equipment logs, wire logs, etc.

Action 11: ASA will stay aware of the color printer problem and resolve the issue so the bathy system can continue uninterrupted. G. Domack will research thermal printers. **RECOMMENDATION**

## **22: ASA SHOULD RESOLVE THE BATHY COLOR PRINTER PROBLEM.**

Action 12: Draft minutes of October 1998 minutes to Chair/Committee/ASA/ and NSF for edit inserts. Refer to: recommendation 2: ASA will revise the October 1-2, 1998, minutes and submit them for committee review/input. After-which committee approval will be requested.

Action 13: D. Karl will obtain a copy of the UNOLS video and safety videos for use on the vessels will be an agenda item at the next meeting. **RECOMMENDATION 23: ASA SHOULD OBTAIN THE UNOLS VIDEO AND BETTER SAFETY VIDEOS.**

Action 14: ARVOC members' terms have been discussed and meetings per year remain at two/year.

Action 15: D. Karl polled the committee for a meeting date (September 20-21).

## **IX IT Report and E-Mail on Vessels**

### **Y2K**

D. Leger reported that the Y2K status on both vessels is complete as of August 1999 and both vessels passed all tests. At ASA headquarters the vessel e-mail systems was also tested and passed all tests as of September 1999.

### **DAS**

There have been no changes to the R/V LAURENCE M. GOULD's DAS system since the last ARVOC meeting.

The R/V NATHANIEL B. PALMER RTDAS system was retired and all data are now being logged through RVDAS system.

The R/V NATHANIEL B. PALMER LabView system is operational and tested as backup/grantee DAS.  
(Appendix 12 RVDAS Watch Stander's Display and Display Editor Display)

### **ISO 9000 & SEPM**

ASA headquarters is now ISO 9000 certified. This means that all procedures are in place and documented as to how ASA' job is done. In vessel IS, this required a significant change, in order to meet the ISO 9000 Design Guidelines.

In ISO 9000, when you do design work, whether hardware or software, adequate checks and record keeping must be in place to assure product quality and provide quality records for which quality may be continually improved.

The existing information systems project methodology has been enhanced to meet the ISO 9000 Design elements, and the result is the new Systems Engineering Procedures Manual. This manual covers the phases of the software/hardware lifecycle, providing checklists and quality record definitions for each phase.

Project notebooks will be used as the repository of all project quality records and documentation. Development will be formalized, with reviews and formal testing.

What this means to the grantee community are better systems, which more closely meet their needs. Development time maybe lengthened, but in the long run, cost savings will occur with lower maintenance and re-design costs.

### **Vessel E-Mail**

D. Leger discussed the vessel e-mail policies as follows:



- Size limits: All vessel e-mail is limited to no more than 75 Kbytes in size. This is advertised as 50 Kbytes due to overhead of headers and routing information. This limit is imposed to prevent abuses of the system, such as receiving large photos and binary files from the mainland.
- When large files are needed for support of science being done on the vessel, the network administrators are contacted and can arrange for the transfer.
- Email attachments are for science, cruise and Teachers Experiencing Antarctica use. The vessel network administrators spot check the use of attachments and contact anyone consistently abusing the policy. This is not a rigorous enforcement. Network administrators have been told not to act on someone sending a small attachment once a month or less, but abuses of sending digital imagery have necessitated this policy. (Appendix 13 –UNOLS Email policies as comparison)

Following general discussion regarding the most effective ways to keep track of email use, compliance to these policies, how to bill for services, options, etc., ARVOC suggested that this type of information be relayed to all scientists to ensure that all are as informed as this committee.

**RECOMMENDATION 24: ASA SHOULD DRAFT VESSEL E-MAIL USE POLICY FOR REVIEW AND COMMENT BY ARVOC.**

#### Upcoming Changes

- One additional Macintosh computer will be added for ping editing in Forward Dry Lab
- Standard operation and data distribution for ADCP and pCO<sub>2</sub> systems

- Two new PC workstations, and one additional Macintosh computer will be added to the 03 Conference Room study area on the RV NATHANIEL B. PALMER.

## X Seabeam 2112

D. Leger reported that Seabeam acknowledges there is a problem with the system but they have no particular action planned to resolve it.

**RECOMMENDATION 25: ASA SHOULD DRAFT A POLICY STATING HOW ASA WILL SUPPORT THE SEABEAM SYSTEM.** (Appendix 14 Performance NBP9908 and gridded data.)

## XI ASA Travel

D. Norris, new ASA Travel Manager, answered questions and reassured the Committee that she and her staff will work with grantees to improve travel services.

ARVOC members discussed several areas they feel need improvement. In the past, long layovers, inconvenient routes, and non-negotiable tickets have been issues. It was also stated that, in some instances, the grantee may have been able to purchase lower air fare than ASA by using the Internet or their home institution travel departments.

ASA must comply with NSF directed travel policies and in some instances there may be an issue with ticketing. The grantees should e-mail D. Norris directly to request assistance with any ticketing problems.

**RECOMMENDATION 26: ASA SHOULD REVIEW AND IMPROVE ITS TRAVEL TICKETING PROCEDURE TO BETTER SERVE THE SCIENTISTS.**

## **XII Interdisciplinary Antarctic Orientation**

S. Kottmeier reported on the recent proposal coming from the PAUC meeting for an Interdisciplinary Antarctic Orientation meeting. The PAUC proposal is to hold a two day meeting, much smaller in scale than the NSF sponsored orientations in years past, with the intent of educating new grantees to the program, creating a forum where grantees can discuss their projects, and allowing a time for grantees to work through logistic/ scheduling problems.

The committee endorsed parts of the orientation proposal, i.e., collaboration between the grantees, resolving scheduling issues. However, it was noted that there is some question if a meeting between McMurdo grantees and Palmer Station grantees would be useful as the issues for each station might be very different from Palmer area issues. **RECOMMENDATION 27: ARVOC SUPPORTS PART OF THE PLANNING MEETING PROPOSAL OF PAUC AND MAUC, AND SHOULD PROVIDE ASA WITH ITS POSITION FORMALLY.**

## **XIII Capital Equipment Procurement Plans**

J. Holik presented Capital Equipment overviews (Appendix 15) and explained that the list is divided into three areas: laboratory services, technical services, and electronic services. Capital equipment purchases are driven by the proposals or are replacement items.

For the R/V NATHANIEL B. PALMER, these items total \$674,840 and for the R/V LAURENCE M. GOULD the total is \$406,400.

**RECOMMENDATION 28: ASA SHOULD PROVIDE DATA FROM THE KNUDSON EQUIPMENT ABOARD THE R/V LAURENCE M. GOULD TO G. DOMACK/ARVOC FOR ANALYSIS COMPARISON WITH THE BATHY SYSTEM DATA.**

**RECOMMENDATION 29: ASA SHOULD DISTRIBUTE TO ARVOC LISTS OF "PURCHASED" AND "TO PURCHASE" CAPITAL EQUIPMENT FOR REVIEW AND COMMENT.**

## **XIV Science of Opportunity**

ASA and NSF/OPP make "science of opportunity" periods available to grantees and, to date, several grantees have taken advantage of this offer. While these opportunities can be valuable to the grantee that will use the data collected, there are also issues that arise. ASA asked for direction/ discussion from ARVOC on ways to:

- Ensure data integrity
- Maintain data
- Proper staffing/who?
- Archiving

ASA is not a scientific institution and is not responsible for archiving, per A. Sutherland.

A. Sutherland noted that, if the data collection is for a funded proposal, then the data is the PI's responsibility. For example, ADCP collects the data but the data belong to the PI.

G. Domack suggested that the PI should be informed of this type of data collection before the PI leaves on the cruise. J. Holik stated this information could be included in the RSP.

D. Karl added that maintaining the proper balance between the data collection and maintaining the funded science operation is a difficult task.

**RECOMMENDATION 30: ARVOC SHOULD DEVELOP A POSITION ON UNDERWAY DATA SETS AND DATA COLLECTED ON "CRUISES OF OPPORTUNITY" FOR ASA AND NSF/OPP REVIEW.**

## **XV New Business, Next Meeting**

G. Domack announced the Shallow Drilling Initiative Meeting scheduled for 4-6 February 2000. **RECOMMENDATION 31: ASA SHOULD SEND A REPRESENTATIVE TO THE SHALLOW DRILLING INITIATIVE MEETING 4-6 FEBRUARY 2000. (N.B., subsequent to the ARVOC meeting, the shallow drilling meeting was postponed. A new date has not been established.)**

A Doyle and D. Michaelson discussed possible acquisition of two defibrillators for use by Emergency Medical Technicians (EMT) on both vessels.

**RECOMMENDATION 32: ASA SHOULD REVIEW WITH NSF/OPP THE PURCHASE AND USE OF DEFIBRILLATORS BY EMTS TO TREAT HEART ATTACK PATIENTS ABOARD THE R/V LAURENCE M. GOULD AND R/V NATHANIEL B. PALMER.**

D. Karl closed the meeting by thanking W. Smith, B. Sidell, and K. Smith for serving on the Committee.

The next meeting is tentatively scheduled for June or July 2000, location to be determined.

Meeting adjourned at 3:15 PM.