

Arctic Icebreaker Coordinating Committee Meeting

April 30 - May 2, 1997

National Science Foundation, Room 730
4201 Wilson Boulevard
Arlington, VA

Appendices:

- I. [Agenda](#)
- II. [Attendees](#)
- III. [Captain Johnson's HEALY Slides](#)
- IV. [System Performance and Testing Brief](#)

INTRODUCTION - Jim Swift, AICC Chair, opened the meeting at 0830 hrs. 30 April 1997 and welcomed the attendees. A list of all attendees is included as [Appendix II](#). Jim introduced the agenda, [Appendix I](#) and reviewed the schedule for the meeting. These minutes follow the agenda, however, subjects discussed more than once have been condensed into a single summary.

REPORTS-

UNOLS - Jack Bash reported for UNOLS. Jack briefly discussed the UNOLS efforts in partnering with NAVO and NOAA. He followed with an explanation of the developing UNOLS scheduling procedures. The World Wide Web Homepage of UNOLS has a Ship Time Request form that is functioning. All investigators requesting ship time on UNOLS ships are encouraged to file their requests through this on-line system. The submitted information goes into a data base which can be used to generate sortable inventory reports. The submission also causes automatic notification of the request, via e-mail, to the PI, funding agency, UNOLS Office and the ship operators likely to do the cruise. In the future this information will also be posted on a world chart accessed through the UNOLS Homepage. Separate charts will be generated for each out-year and the requests filed at the geographic location indicated on the request. These scheduling tools are available for the USCG icebreakers.

NSF - Tom Pyle explained that the general funding climate at NSF is good for an era of Federal budget cuts. This is not so for other agencies supporting ocean going science. Interior and Defense are declining while the NOAA budget remains even. NASA could be a possible source for Arctic funding, however, this agency has not supported sea going science in the past. There is no new or dedicated funding at NSF for HEALY science, That could change, however, with enough proposal pressure. It is time now to submit proposals for the 1999 operating year. Currently NSF is supporting SHEBA including expenses for support of Canadian icebreakers.

AGU/ASLO - Jim Swift reported fair attendance and considerable enthusiasm at the AGU town meeting in December. Notes from that meeting have been published and are available on the web. The ASLO meeting had lower attendance because of a competing gathering. Kudos went to CDR. Chuck Lancaster (USCG) for his participation at the UNOLS booth at AGU and the HEALY poster at ASLO.

RVTEC - John Freitag explained that the RVTEC can offer counsel on technical matters for HEALY and the Polar class ships. Phil McGillivary has been working already with this group and will continue to do so including attendance at the RVTEC annual meeting. The 1998 meeting will include a joint international group that could be important for the Coast Guard and Arctic operations.

ARVOC - Walker Smith reported for the Antarctic Research Vessel Oversight Committee which works with ASA and the operation of PALNIER and GOULD. Dave Karl is now the chair of this committee replacing Doug Martinson. Al Sutherland followed explaining that GOLTLD was built from the keel up as a supply/research vessel replacing POLAR DUKE. GOULD should be on-line by November of this year. Al explained that although the focus of ARVOC and the AICC were different, there was commonality and a strong liaison between the two committees should be maintained. Al encouraged all to visit the ASA web site at .

USCG - CDR Rick Rooth reported that he will be departing his position as Head of Ice Ops and will be replaced by CDR George Dupree. Rick explained that the USCG has been involved in a multi-national effort for the "Harmonization of Polar Ship Rules" which will standardize requirements, under the International Maritime Organization (IMO), for ships operating in the Arctic. The USCG is working with NSF to develop a MOU which is nearly complete. This will spell out the relationship of the two agencies and should aid in the science use of the Coast Guard's icebreakers.

Rick expressed concern with the conduct of the Science Of Opportunity cruises. The Coast Guard wants to make the ships available for science but fears the expectations of the scientists may be greater than warranted. The opportunities should be advertised but so should the limitations.

HEALY's first commanding officer will be Captain Garrett. Resources for the operation of this ship are now in a request to Congress. The homeport is yet to be determined with ports on both coasts under consideration. The AICC encourages the Coast Guard to consider having HEALY homeported in the same city as a major UNOLS operator institution.

The POLAR SEA AND POLAR STAR will be scheduled for 65 days of Arctic icebreaking time each year with a total expected operating schedule of 185 days each per year. HEALY is being planned for an operating year of 200 days.

Captain Greg Johnson followed Rick with a presentation of the state of ship construction of HEALY. A copy of Captain Johnson's slides is included as [Appendix III](#). Avondale had difficulty with bow castings and acknowledged responsibility for a six month delay which allowed for the change orders to do the top ten items of the science wish list. The shipyard will have the hull finished by the end of spring. The superstructure is now under construction. The committee was concerned that the change be made to place the overboard discharges on the port side. Also of discussion was a design to allow an ice free freshwater intake. The change to add bridge wings will not be made during construction but will be considered for the PSA.

Delivery of HEALY is now scheduled for December 1998 with most of 1999 dedicated to shakedown. The Navy funding responsibility will end January 2000. An operator's manual will be the responsibility of Capt. Garrett, the ship's prospective Commanding Officer. Captain Johnson suggested, and the committee agreed, that the AICC assist in the development of this document. John Boaz, a senior resident tech at Scripps, has been hired by the Coast Guard to provide part time technical support. Phil McGillivary assured the committee that the Coast Guard will work closely with the UNOLS RVTEC.

SCIENTIFIC CLEARANCE IN FOREIGN EEZ - The AICC has expressed concern from the beginning that there could be a problem with HEALY and the diplomatic clearance issue particularly in regard to the Canadian CASPPR regulations. Rick Rooth explained that the Coast Guard has assurance from Canada that HEALY will be grandfathered under CASPPR 11 and therefore would be permitted to operate in the Canadian Arctic. With respect to clearances Rick said the Coast Guard regards their icebreakers as any other science ship and will consent to the requesting of clearance as if it were any UNOLS vessel. Phil McGillivary said that the requesting of clearances is the responsibility of the scientist planning the work in a foreign EEZ and the ship operation people need not get involved. Jack Bash responded by stating that that was technically correct but that it was prudent to have the ship operations "shepherd" the clearance through the State Department. The Committee felt strongly that the Coast Guard adopt the same procedures used by the UNOLS ship operators. If clearance procedures are violated it is the ship that could lose access to future use of foreign waters and therefore it behooves the operator to ensure that all procedures are properly followed.

In addition to normal clearance procedures there will likely be local coordination required both in Arctic native areas and with Russia. Each scientific mission will need careful planning and in many cases special attention.

Chief Scientist Guide Book - The Coast Guard will be developing two documents concerning the ship's operation. The first is the "Ship Organization and Regulations Manual" known as the SORM. This is primarily for the ship's use providing details as to the day to day procedures aboard ship and how it is to operate. The second is a Chief Scientist User Manual which is written for the science party and gives the scientists details of how the ship will operate. The Committee urged that the SORM speak to the science mission of the ship providing some corporate memory as personnel change. The

Committee advised that User Manuals are common on all UNOLS vessels and that the modeling of the HEALY User Manual after UNOLS manuals would be a very good idea. It was noted that most of the UNOLS ships had their manuals on their Homepages for easy accessibility. The manuals of Scripps, University of Washington and Oregon State were cited as good starting points. It is the Committee's desire to review the HEALY User Manual before it is published.

SCIENCE OF OPPORTUNITY CRUISES - The Committee discussed the Science of Opportunity (SOO) cruises for both 1997 and 1998. The process used for notifying the community of the 1997 POLAR STAR SOO was considered a significant improvement over past cruises but will need changes for future cruises. The 1997 SOO letters of intent were reviewed for logistic content and not for science peer review. The community is concerned that the AICC not act as a peer review panel. The AICC is in total agreement with this. In the case of 1997 the number of requested berths did not exceed the ship's capacity so that prioritizing was not necessary. The Coast Guard is concerned that in the future they will be put in an untenable position if they must decide who goes and who does not. Because there are likely to be various funding agencies involved the procedure for peer review gets complicated. As in 1997 the AICC will make no value judgments as the quality of the science. If future SOO cruises stimulate more scientists than berths available it is the recommendation of the AICC that NSF convene a peer review process, to assist the USCG in selecting the worthy science. Other agencies could be involved if appropriate.

An announcement letter will be prepared for the 1998 field season when POLAR SEA will be the SOO ship. This letter will clearly explain the AICC involvement and limitations. It will also stress the fact that time dependent observations are not appropriate on these cruises and that specific sampling areas can not be guaranteed. The letter will also explain that investigators not planning to make the trip must make their own arrangement for sampling with other scientists that are likely to make the trip. This is not the role of the AICC.

OAI CHAIR LETTER - Jim Swift read a letter from Jackie Grebmeler, the OAI Chair. The letter expressed the OAI concern that the AICC does not get involved in the peer reviewing of science. The OAI was concerned with the clearance issue on HEALY, and finally encouraged the Coast Guard to ice trial HEALY in multi-year ice. The AICC discussed the letter in detail. Jim is going to discuss the Committee's view with Jackie at their next meeting and then a response will be written.

USCGC HEALY ICE TRIALS - CDR Ian Grunther provided a presentation on the HEALY ice trials. A copy of his slides are included as [Appendix IV](#) Ian will be the Technical Director and in charge of the Ice Trial Organization. Captain Parson, (USCG Ret) has been hired as the Science Systems Coordinator. A wiring diagram of this organization is included in Appendix IV. The AICC expressed their concern and interest for involvement in the science trials.

Ian reported that four and one half months will be set aside for the ice trials. The geographical area for these trials has not been selected. The selection will depend on the time of year and where appropriate ice can be found which could be either the eastern or western Arctic. A discussion followed as to whether this would be a Science of Opportunity cruise. It was concluded that indeed science should be performed during the science equipment testing in the ice, however, this should not be a SOO cruise but that the primary effort should be in testing.

Ian reviewed the ice trial objectives and the contractual requirements. The trials will include icebreaking capability, hull performance, machinery performance and science equipment performance. The AICC requested a list of science systems to be tested. It was agreed that the AICC would assist in developing the science systems testing criteria by querying the UNOLS community for experts. Some science equipment testing can be started in the Gulf of Mexico, however, most will require the rigors of ice operations.

A letter will be prepared by the AICC for the UNOLS community with a list of science equipment to be tested. The letter will request participation by the UNOLS community in developing the science systems test programs.

On the third day of the meeting the AICC reviewed the discussions of the previous two days.

ACTION ITEMS

1. Write a letter to the UNOLS Community to solicit participation in developing a science system test program.
2. Write a letter for the 1998 Science of Opportunity cruise aboard POLAR SEA.
3. Prepare a two part form for the web for SOO cruises. Part one would be boiler plate and provide an opportunity for the community to express interest in a SOO. This would be public information and used by the AICC for determining logistical compatibility. Part one would be linked for distribution to the AICC members and appropriate federal agencies. Part two would be more detailed science requirements or a condensed proposal with details which could permit science peer review. This would be held confidential and passed to a peer review panel (not for AICC use).
4. Develop a long range (three-five years) logistic planning letter.
5. Write a letter to the Coast Guard encouraging the involvement of the USCG operator in processing clearances. Although it is the scientist's responsibility to initiate clearances for work in foreign EEZs it is incumbent upon the operator to act as a facilitator in the processing of the request. This is the procedure used by all UNOLS operating institutions.

NEXT MEETING - The next AICC meeting is planned for New Orleans in January 1998. HEALY will be launched by then and the committee will be able to tour the ship and get a greater appreciation for its size and complexity. Science spaces and the bridge will be accessible and winches will be installed. The meeting is planned for one and one half days. Subjects to be discussed will be:

1. Membership issues,
2. Review of Science User manual for HEALY,
3. Address concerns on the installation of SEABEAM,
4. Discuss science equipment testing and
5. Other.