

*(Draft Version 1)*

## MEETING MINUTES

**UNOLS Arctic Icebreaker Coordinating Committee (AICC) Meeting  
December 1 & 2, 2008  
Coast Guard Integrated Support Center - Rainier Room  
Pier 36 - 1519 Alaskan Way, Seattle, Washington**

### Executive summary

Executive Summary to be finalized and inserted here soon.

### AICC Action items

<i>Action Items</i>	<i>Assignment</i>
Radioisotope policies and form for naturally occurring isotopes.	
Document and bank interactions by AICC with Arctic Communities.	
Have Tim Deering contact Silas Ayers and Dale regarding the specs for the new van.	Mike (done)
Check with Pete Zerr and Matt Hawkins about having someone inspect the existing Coast Guard vans.	Mike
Urge MMS Arctic Program Managers to come to next meeting	Carin, Renee, Phil
Debrief Recommendations	Carin, AICC
Modify cruise questionnaire to better help create dialog between CS and CG re: data communications requirements	Healy, ESU, Dale, Dave Forcucci
Identify software package for tracking action items – to be used for all UNOLS committees	Dale, Jon Alberts, Mike
Explore with DOS having Marine Science Clearance requests and approvals posted on a public website.	Renee, Andy Armstrong
Follow-up on procedures for Science of Opportunities for C130 flights and other Coast Guard assets in the Arctic.	Don Peltonen, Phil McG., D17, Mike
AICC have email discussion on science mission capabilities that should be included in planning for any new multi-mission icebreaker. Make a recommendation to USCG and NSF.	AICC
Form a small ad-hoc group of AICC and USCG to review	Lee Cooper, Carin Ashjian, Steve Hartz,

the debrief questions.	Jeff Stewart, Silas Ayers and Mark Rieg.
AICC suggest changes if necessary to the published berthing policy.	Kate Moran to take the lead
Inventory equipment and instrumentation that has been used on the ship for which there is not a clear owner (responsible party), determine which of those items are required by science and then how they can be supported. This would include vans. Look at a policy for third party equipment that is semi permanent.	Healy, Dave Forcucci, Dale Chayes, AICC

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## **Proceedings of the meeting**

### **Welcome and Introductions**

The UNOLS Arctic Icebreaker Coordinating Committee (AICC) meeting was held on Tuesday December 1 and Wednesday December 2, 2008. Dr. Carin Ashjian, AICC Chair, called the meeting to order at 0845 and provided an opportunity for introductions. A list of participants is included as [Appendix II](#)

### **AICC Chair Report and Discussion Items ([Appendix III](#))**

Carin reviewed the planned schedule for the meeting and logistical items.

### **Minutes from Previous Meeting**

The minutes for the June 2008 AICC meeting were approved with editorial edits by Renee Crain and Carin Ashjian.

### **Action items from last meeting (June 2008)**

- Develop bibliography of publications - Have given it some thought. Phil will create a draft for people to look at.

- o Question by Dale - who will maintain the list. Answer is that Dave Forcucci would maintain it on Icefloe. SBI site will also be retained.

- Recommendations regarding Polar Sea and Polar Star were sent to NSF.
- Process for isotope use - nothing done yet.
- OPP buy a van -

- o NEW ACTION ITEM - Have Tim Deering contact Silas Ayers and Dale regarding the specs for the new van.

- o NEW ACTION ITEM - Check with Pete Zerr and Matt Hawkins about having someone inspect the existing Coast Guard vans.

- MMS Science of Opportunity possibilities - Have given some thought to this. ARC will try to track this effort.
- There are three MMS managers in Anchorage who have developed a five year plan. It might be useful to invite them to the next meeting.
- Initial scheduling and cruise planning processes. Keep in mind that if possible, new PIs should be identified earlier. No need for a formal recommendation, but should be a goal each year.
- Create upgrade and equipment recommendations from the debriefs - in the next month or so.
- Berthing - some update of website info, will discuss some of the details later.
- Document and bank interactions by AICC, etc. - to be done
- 2006 teleconference recommendations - reminder sent to Renee
- Retreat in Alameda - not endorsed by current admiral, new admiral in June.
- Mid Rats - add to questionnaire - ?
- Protocol for getting major science instrumentation for icebreakers - some effort at coordinating, but not completely fleshed out.

- o Cruise specific equipment requests are being done fairly clearly but not always executed effectively, with gaps in information from CS and PIs

- o New instrumentation needs should be coordinated between NSF/USCG/AICC better. Using an ongoing prioritized list would be helpful for that.

- Provide and get information about the use of Internet bandwidth

- o Cruise questionnaire should be modified to better help create a dialog between the CS and Coast Guard about the data communications requirements. Coast Guard and Dale should identify what they need to know and ask questions that PIs can answer. Set up a procedure to hold a dialog about the requirements.

- Discuss Habitability - on agenda
- Request Town Hall meeting at AGU - done by John Farrell
- Disseminate action items - done
- Check in with NSF re the Medical Recommendations - Discuss at this meeting

- o Renee has checked with the people who screen for the Antarctic. They are thinking that screening should be tailored to specific missions or types of

missions.

- NSF will work with Coast Guard on detailing the policy.

## **AICC Activities**

AICC activities - State Department. DOS will send all US requests to Bob Houtman and Renee will work with Bob on Arctic requests. Renee sent a politely worded letter to foreign chief scientists encouraging them to make contacts with arctic communities.

Suggestion to have State Department post publicly the requests for clearance from foreign countries and then the granted requests.

Liz Tirpak on detail for six months to UN. Need to determine how this affects the process.

Jeff Stewart commented that the written summary of 2008 operations was very useful for the AEWG meetings, but for other uses as well. Encouraged that one be done for 2009. Carin has started on one.

## **Task List and Recommendation Tracking ([Appendix IV](#))**

Showed the spreadsheet with possible fields for tracking recommendations and tasks.

Dale commented - there are available software packages that are open source and configurable for our needs.

This should be done with an email/web based system that is transparent and published.

ACTION ITEM: Dale and Jon will provide examples of programs they are using and will work with Mike to adopt one for AICC and UNOLS Committee purposes..

## **UNOLS report**

Introduced Vernon Asper, UNOLS Chair and Jon Alberts, new UNOLS Executive Secretary.

- Tech and crew retention workshop
- RVOC meeting and RVTEC meeting
- FIC - FIP and Ocean Class, Regional Class, ARRV
- MLSOC - successful operations, meeting before AGU
- DESSC - meeting before AGU - Status of RHOV
- SCOAR - need a new chair

## **Agency Reports**

NSF Report - Renee Crain ([Appendix V](#))

Renee thank ARC, Coast Guard, Carin and AICC (and Mike Prince).

Healy Multibeam procurement is on track.

Medical Clearance

Arctic sciences division and RSL program

Three solicitations for FY 2009 with the potential for new grants next year.

Request for proposals for ship-based science support coordination in progress - hopes to have this RFP out and competed this winter and in place next year.

Barrow Arctic Science Consortium- NSF helped initiate this effort. Renee has been the program manager for BASC for the past two years. Funded through a cooperative agreement. Her goal is to see BASC succeed but has had to spend a lot of time helping to manage this CA. They have been asking for better project management and budget management and have been making progress. BASC may end up being a subcontractor for CH2M Hill. BASC can enter into contractual arrangements with any other agencies for support in the Arctic. Non-NSF projects or any PI can make direct payments to BASC for support of science project logistics.

## **Budgets and plans**

Showed a graph of funded projects and grants over time indicating that there is room for new projects in 2010 and beyond. Also showed map and a graph indicating the location of projects in the Arctic. Alaska and Greenland account for a lot of the projects that have been funded in 2007 and 2008. A graph of the budget for logistics and Arctic projects shows a deficit in 2008 for logistics, which impacted what they could do and funds available for science projects. Projections for 2009 depend on whether there is a continuing resolution at 90% or if they get something close to the requested budget. (see slides for numbers). Discussion of what drove costs in 2008 and the strategies for managing logistics budget in 2009. Managing of these strategies is being done by Renee and Pat Haggerty who is more oriented to facilities planning and upgrades.

Carin asked about the recommendation to continue the upgrade of the science outfit. Renee asked for Lisa's comments - Lisa said that the Coast Guard did not put any funding into the FY09 program support for science support equipment. PACAREA has prepared plans to spend money on science equipment when funds are made available.

## **NOAA - Andy Armstrong ([Appendix VI](#))**

Andy reviewed several projects that NOAA is involved in. He started with a report by Kathy Crane of the NOAA Arctic Research Program. See Kathy Crane's written report in [Appendix VII](#).

RUSALCA project lost access to their ship at first, but used a different ship for part of the program.

NABOS was delayed due to ship funding and ended up working late in the year and in the darkness, but did get their work done.

Xue Long project looking at CO2 in the Arctic.

Issues for the NOAA Arctic program - Advanced funding for Russian ship time is necessary to get access. Also getting clearance for the Russian EEZ

Andy then covered the extended continental shelf work by reviewing area coverage in 2008 and showing results of dredging operations. See Appendix [VIII](#) for his written report.

Issues for the future

Marine Mammal IHAs may be possible if they lead the seismic vessel in the U.S. EEZ

Continuing community relations

Looking at general NEPA requirements

There is a growing concern about protection of seals (and polar bears) in the Arctic. Much of their concern is about pups, so IHAs will probably be specific relative to time and place.

USCG - HQ - CDR Lisa Mack ([Appendix IX](#))

See presentation for more detail.

Reviewed budget authority

NSF is discontinuing funding for Polar Star caretaker status. Polar Star is now the Coast Guard's responsibility.

MOA requires the NSF mission needs by June 1 and USCG submits program plan by July 1. This is a generalized plan for the level of use for science support. Renee asked whether or not moving the dates a month later, would it help. The answer is yes. Renee then asked to what extent the Coast Guard knew what.

Kate Moran asked Lisa what the Coast Guard would seek from AICC in the way of advice. Lisa answered that they would want input on the utilization of HEALY, although the current process for scheduling would remain unchanged. They would also seek resolution on reimbursement schemes for use of the Healy by funding agencies. What Kate really wanted to know is what the Coast Guard would seek after shifting the budget back. The answer is that this is how it used to be and there would be no real change to what the committee does.

## **Arctic Initiatives**

Participated in the NSPD/HSPD Arctic policy review.

Contributed to the Arctic Marine Shipping Assessment report.

Contributed to Congressional Research Service reports on polar icebreaking modernization and USCG's Arctic perspective.

Icebreaker issues

### ***POLAR STAR***

caretaker funding and reactivation

### ***POLAR SEA***

Standby for DF09

Arctic Deployments

Science of opportunity announcement request

### ***HEALY***

Study for increased DAFHP completed and in internal review - results will go to NSF/AICC after review internally by USCG.

Question asked by Lee Cooper - would the POLAR SEA be available to support the early BEST cruise. The answer is that it is possible and Renee will look at that closely. The larger group of BEST PIs for the second cruise could not use the POLAR SEA. Lee would be willing to use POLAR SEA but would need to make specific plans with the Coast Guard for what equipment science capabilities would be required.

### **USCG PACAREA - Phil McGillivary ([Appendix X](#))**

Phil reviewed science activities on Polar Sea and Healy beyond the normal funded science programs. See slides for details.

Phil also reviewed tentative plans for POLAR SEA in 2009

Tentative Feb - April cruise and Fall Cruise - see slides for details.

planning meetings for the Methane Hydrate work in the Arctic.

### **USCG District 17 - CDR Todd Trimpett**

Took questions about what was done by District 17 units during 2008 in the Arctic and Bering Sea.

Sent the Buoy tender SPAR and the HAMILTON to the Arctic.

Limitations with the endurance of the vessels other than icebreakers.

Question about whether or not the Buoy Tenders could do some of the mooring work. It is possible, but adding the capability to do a CTD would probably be required.

They made humanitarian visits to Little Diomed

Renee asked about the wireless network that Richard Beck was funded to set up around Barrow. It was not deployed on PS or *HEALY* but was successful on *SPAR* and *HAMILTON*.

Renee asked if making SOO announcements on the C130 and other Coast Guard asset deployments to the Arctic.

CDR Trimpett believes that it would make sense to provide these opportunities as long as expectations of users were managed properly.

Also, following a systematic and careful process would be necessary to success.

Phil McGillivary would be a point of contact for these types of requests.

Tentative plans for the summer of 2009 include the following activities.

C130 Arctic Domain Awareness flights will continue starting around March and running into September.

Icebreaker deployments

Small boat and helicopter forward deployment locations will probably be established again next summer.

They looked at Barrow last year and will probably look at Nome next summer.

Other cutters will probably deploy to the Arctic such as Buoy tenders, 378s and MEC's with helicopters.

Coast Guard Helicopters on icebreakers (POPDIV) was disestablished. Since then there has not been a lot of helicopter support from the Coast Guard for icebreakers. This year, CG helos were used on icebreakers from Kodiak. (they have four). When the icebreaker is involved in a multi mission profile they will try to put a helicopter on board. They would not expect to put helos on a single mission cruise, so you probably would not see one on HEALY, but might see one on PS depending on their mission profile.

### ***POLAR SEA SOO call - how did it go and recommendations for next time.***

It would be good to have more time to receive and evaluate requests.

The requests this past time were easy to decide on as being compatible with science of opportunity.

Discussion about whether or not to do the SOO announcements can be made now even though the deployment has not yet been approved. Renee will try to get an approval or answer for this before AGU.

Discussion about whether or not SOO could be done on a funded cruise. Normally, this type of opportunity is at the prerogative of the funded PI.

## **DAY TWO**

Carin reviewed action items from first day. Additional items were added to this list during the remainder of the meeting

([Appendix XI](#))

### **ARC - John Farrell ([Appendix XII](#))**

John provided background information on the USARC, for the benefit of those who were unfamiliar with the small, independent federal agency. He described the purpose of the USARC, the goals of the agency, and the current Commissioners and the terms of their appointments. The incoming administration will need to address two openings on the Commission in 2009.

He then described the US government's Arctic research budget, which is spread across about 15 federal agencies and totals approximately \$400M/year.

Farrell then described the biennial report on goals and objectives that the Commission sends to the White House and to Congress, and went into a little detail on the five overarching goals.

The goals report goes to Congress, the President and the IARCP (Interagency Arctic Research and Policy Committee) Interagency group - NSF, NOAA, NPRB, DOI, NASA, NSSI, Alaska - chaired by NSF Director

### **Recent activities**

Chair of commission addressed the USCG flag conference in April

Also testified before Congress - testimony is on the website

ARC has full authority to work directly with Congress, OSTB, OMB and the agencies



ARC worked with the government wide review and development of new Arctic policy that may be released as either a (Homeland Security Presidential Decision (HSPD), or a National Security Presidential Decision (NSPD).)

ARC meeting with VADM Pekoske on December 16 in Alameda.

Stimulus Bill S3689 Senator Reid has money for new icebreaker

Reviewed the goals and reasons for the Arctic Marine Shipping Assessment.

Showed some of the data that will be reported.

There will be a Town Hall meeting on December 18th at AGU

Discussion about planning for new icebreaker if put in the budget as a stimulus item associated with the USCG. Jeff Garrett made the point that the community and the Coast Guard should develop what the requirements are for a new icebreaker, especially as it relates to including science capability.

The subject of the how to articulate what science capabilities are required for new icebreakers including the possibility of a workshop or discussion to move forward on this. The previous idea for the meeting was discussed. Decided that AICC would discuss by correspondence what mission capabilities any new icebreaker should have and perhaps make a recommendation by letter in the near future. Will also devote 1/2 day or so to this issue at the next meeting.

2008 Cruise Debrief summaries (See [Appendix III](#) – second section)

All cruises were successful.

Slides include some suggestions for each cruise.

Discussion about losing the optics package.

There will be some changes in procedures that will require a little more pre-planning on deployments and a closer look at the weather windows during which certain operations will take place. PIs should be encourage to have a plan for recovery of equipment and information that will help in making deployment decisions. Details of any internal investigations can be obtained through FOI procedures if necessary.

2009 Healy Schedule - Dave Forcucci

Issues include how to add an extra day of demobilization after Carin Ashjian's cruise in order to leave equipment in Dutch Harbor for the summer cruise on *Knorr*.

Helicopters have not yet been identified for the Barrow transfers. To coordinate this they want to have a Coast Guard person on the call in order to make sure their needs are included. For the early BEST cruise, Renee's is planning to program helicopter support, but may have cut if the budget does not allow it. This will be a problem for the science as outlined in a letter from Lee Cooper.

Dry-dock will begin on October 20 and HEALY will be available mid-May 2010, which means Healy will not be able to support early BEST cruises. Not a lot of information on other projects yet for 2010.

**Science Modifications, Infrastructure and Equipment - Dale Chayes ([Appendix XIII](#))**

2008 science support people outlined. Cruises had 2 to 3 people and the shakedown had 4 to 5, including several people that worked on pre underway evaluations and software updates. Transits had 1 to 3 people. 2009 and 10 support will be similar to 2008 as the operations are similar. There will be support for the multibeam installation effort.

## **Upgrades and Improvements**

Installed two gravity meters on HEALY, one of which will move to the ARRV when it is operational. For now it is a backup.

Installed science met sensors and a science AIS receiver. The AIS receiver was specifically used for the two ship operations and can show other ships in the area up to 30 miles away. Linked to map server.

Installed an NDB aircraft beacon, which will be available for use by civilian helicopters next year.

Heading gyros were installed. The Mapserver improvements included linking the AIS, user waypoints, and overall performance.

Multibeam replacement is on track for the 09/10 dry-dock.

Computer racks for the Coast Guard Science Data Network had some issues and are on track for completion.

No progress on the Computer Lab renovation despite having the ECR approval.

New TSG/pCO<sub>2</sub> location has a revised plan and they have requested a cost estimate.

Sub Bottom Profiler transducers physical replacement complete, testing still needed.

Science VSAT - a plan is being developed and funds have been identified.

High Latitude Communications - continuing the search for improved capability.

Incubator water - some progress on characterization.

Transducer void ventilation - no progress. This a possible safety issue and has been on the list since 2003.

Transducer void cableways - no progress and has been a problem since the ship was designed and recognized as a real problem in 2006

Dark room renovation - no progress - AICC guidance is that this should be a dark space, but remove the organic photography capability and make it a more useful dark space. Needs to be written up, choose one of two plans.

ADCP cable re-route - no progress - needs to be done to eliminate some EMI problems. Some thought that this would be done in dry-dock, but not clear that there is an approved plan.

Future Lab renovation - there is a write up and approved ECR, but it is lower on the priority list.

## **Science Related work in the dry-dock**

Only item is the multibeam replacement.

## **Multibeam replacement status**

Funding seems to be in place.

Detailed installation planning is moving along.

Anticipate an award to manufacturer in Dec 08. The factory acceptance test would take place in the fall of 2009. System will likely be a Kongsberg EM122

Installation during CY 2009-10 dry-dock.

Dockside acceptance test in May 2010.

Initial sea trials during shakedown post dry-dock, which would require adding some time to this shakedown of about 5 days. Need to have contingency in the plans for acceptance and sea trials.

Performance characterization during 2010

Question about what to do with the old system. UNH might want the transducers and WHOI might take the topside equipment. Trying to keep from having to pay for disposal.

Testing criteria details include moderately deep water flat bottom, deep water steep slope and shallow water flat bottom to do the calibrations. Need good weather.

Performance characterization under different conditions would take place during the 2010 season and perhaps in 2011. They would look at performance in the deepest water, variable weather and variable ice conditions.

Question about performance in shallow water. It is supposed to operate in 50 meters of water. Shallower than that is probably not necessary but there are lots of time when the HEALY is in 50 to 150 meters of water and if the EM122 does not work well in those depths, then consideration should be given to installing a shallow water system.

The potential locations for doing acceptance testing both close to Seattle, in route and in Alaskan waters were shown. Planning for this time will be important in 2010 scheduling.

## **ESU report - Jim Wilson ([Appendix XIV](#))**

WAN support includes Iridium and VSAT for which funding has been received. (See Slides)

Chief Scientist Reports - Medical forms were too large to receive underway - fixed test on shake down. Shoreside there was a problem on the Coast Guard side. We think that these issues have been fixed.

UPS support has been an issue and may be contracted out. They will publicize do's and don'ts for using UPS.

Discussion about comms between science and Coast Guard that currently has to go off ship and then back. This creates some problems and they are working on solutions.

CDR Jeff Stewart (Healy Ops) commented that the efforts of Steve Roberts, who sailed on every cruise, were outstanding and greatly contributed to the science program as well as to the ship's crew.

## **Berthing Issues**

Berthing is a gray area between Science needs and CG needs.

There is a statement in the spreadsheet that we are not clear if this is the clarification that we are looking for. This is in regards to the stated policy on the Icefloe website. At the time of the meeting the Icefloe website had the current Coast Guard policy on berthing posted.

On a separate issue, Coast Guard has done the ECR process to modify room 303, normally occupied by officers and chiefs. We took out the old couch/bunk and replaced it with a 2-bunk bed that is commonly seen on other CG vessels. Different from Healy bunks, it has storage compartments under the mattresses. Provides clear boundary between working area and the sleeping area. All four racks have privacy curtains. Also the back of the new rack provides a light and sound barrier from the desk area. Much better configuration than the present one. This offers an opportunity for modifications that could be done. This gives us one other option. We are going to see what life is like underway with this configuration in this one room.

In the short-term, we would like the folks interested in shaping the Healy's future take a look at that.

The Captain stated that this was designed to be a more flexible and comfortable space. Generally try not to put more than 2 per room. It is helpful to us because we could put four CG people in there.

OPS encouraged feedback and said that if the committee wanted to take a look, Silas will take you over.

Stateroom 303 is all the way forward on the starboard side.

XO moved to the former guest stateroom

Kate Moran still thought the stated policy should be clearer about what the purpose and assignment of berthing should be and where the priorities are.

**ACTION ITEM:** Kate will take the lead on making specific recommendations for changing the wording in the berthing section on Icefloe.

## **Icefloe Website**

Under Cruise Planning Overview, you can now get a pdf of the whole manual to print out or download. <http://icefloe.net/handbook/healyHandbook.pdf>

## **Ice Imagery**

Meeting coming up with NIC to determine what is needed for next year and what the costs will be for imagery and personnel support. How this will be funded will be NSF's responsibility.

Ice imagery for the BEST program could be discussed at the planning meetings. NIC would be most likely willing to provide an ice observer on board if a rack was provided. Lee Cooper might want to do this.

## **ARRV Update - Dan Oliver ([Appendix XV](#))**

Significant differences and improvements from 2004 Design.

LOA increased by 6 ft to maintain buoyancy after new ice classification regulations added more weight.

Eliminated large fish trawl capability because this was a NOAA mission, not an NSF mission and NOAA had no funds to cover the costs of this capability.

Increase noise abatement specifics - UAF is taking on the risk for noise using their specs and removing it from the contractor. Does not meet ICEES specs.

Crew accommodations changed to include single state rooms for most crew members.

### **Third Party Equipment**

Equipment on HEALY that is not USCG's and ownership and maintenance responsibilities are not clear. This might cause equipment that science has relied on to go away.

Action item is to inventory equipment that might fall into this category that is science is required and make a recommendation to retain this equipment.

ODP has a third party equipment policy/process that allows for equipment to be added to the ship's inventory with procedures, maintenance requirements and possibly resources to provide the support.

### **AGU Town Hall - Carin**

What topics should Carin cover during her 7 minutes. The committee, ARC, Coast Guard and NSF provided some suggestions.

**Next Meeting** – Tentatively early next summer at NSF while Healy is in port. Dates that will work for Healy personnel are during the week of 26 May, 22 June and if absolutely necessary, 1 June. The AICC\_Plus list will be polled about availability for these three possible dates.

*The meeting adjourned at 1530.*