

## Healy & Polar Class cruise debrief, held via teleconference (Rev 01/10)

**Date of post-cruise teleconference debrief:**

**Chief Scientist:** Larry Mayer and Andy Armstrong

**Name of Project:** ECS Mapping

**Name of Ship & Cruise Number:** HEALY1103

**Start and end dates of cruise:** 15 August 2011 – 28 Sept 2011

*Please provide comments on the topics and questions that are appropriate for your cruise.*  
**NOTE: This form must be submitted as either a \*.doc or \*.docx file.**

### **1) Overall Success of Cruise:**

Very successful

a) *What percentage of the planned science objectives was met during this cruise?*

This was a joint US-Canadian program – U.S. Objectives 100% - Canadian 90%

b) *Please summarize positive and negative factors that impacted completion of the science objectives (for example, personnel issues, equipment performance, ice and weather conditions).*

For most part all worked well – no personnel issues, major equipment problem was with *Louis S. St. Laurent*. Minor equipment problem with door to CTD room – this prevented one or two casts from being taken at most opportune times but did not have major impact on cruise. Ice conditions were difficult given where we were working and this of course impacted everything but two vessels managed ice well.

### **2) Pre-Cruise Planning**

a) *How beneficial and useful is the cruise planning form and the Icefloe web site?*

I think the form is getting better and it is being used effectively. My filling it out led to a number of questions and clarifications long before the cruise that made the cruise itself more efficient.

b) *Is it clear what is required to be provided to the ship and the schedule for receipt of that information (schedules, lists, plans, forms)?*

Yes – but I also have the benefit of doing this many times before.

c) *Were the questions on the pre-cruise questionnaire appropriate and easy to respond to?*

Yes except for need to know where we would be when – this is very difficult to answer given the uncertainties of the ice conditions – I do however, understand the desire to have this information ahead of time.

*d) Were you able to submit the questionnaire fairly early in the planning process?*

Yes – though I updated it regularly as plans changed.

*e) Did an operations (cruise?) plan get submitted in a timely manner? Was it useful for you and the ship before and during the cruise?*

Yes – see above – again this had to be updated regularly.

*f) Do you have suggestions for how the website and questionnaire might be improved?*

There is still some redundancy in the questions but for the most part its OK.

### **3) Pre-Cruise Communications**

*How were pre-cruise communications between the Coast Guard and the Science Party, especially the Chief Scientist? Were points of responsibility easily identified? Were responses to questions and concerns received in a timely manner? How were communications within the science party and did that impact communications between the Chief Scientist and the CG?*

Excellent – started at the AICC meeting a year before and continued up to cruise. Most appreciated was the formulation (through Capt. Rahl memo) of berthing situation which had been sore point on many previous cruises. With a known starting point and policy we were able to have very fruitful discussions and compromises about the berthing situation (which seemed to be a real moving target on this leg – including a surprise at sea).

### **4) Communications and Coordination During the Cruise**

*How were communications and coordination during the cruise? Were lines of responsibility clear? Were the evening planning meetings effective for communicating information between the Coast Guard and the Science Party?*

Communications were very good. Lines of responsibility were clear. Despite the fact that much of our cruise was leading the LSSL and thus no major science events or decisions, the daily planning meeting still serves an important role in fostering communications and allowing questions to be raised.

### **5) Environmental Permitting**

*a) Was any environmental permitting required?*

It was touch and go for a long time until NOAA management issued categorical exemption. We still took along marine mammal observer.

*b) If so, were these requirements identified at an early date and were there clear means to accomplishing those needs? In other words, how well did it go?*

### **6) Communications with Local Alaskan Native Communities**

*How well did communications between the CG and science and local Alaska Native communities go during the cruise? (Examples: notifications to local communication centers, communications between Chief Scientists and/or CG and entities such as village tribal governments (e.g. IRAs), village corporations, the Alaska Eskimo Whaling Commission and other appropriate wildlife co-management organizations, village whaling captains' associations, and other locally based interest groups.)*

Given the dates of our cruise and the return to Dutch Harbor we did not have serious issues with the local community. They had been briefed on our cruise in writing and via presentation by Carin (I think) and no objections were raised. We had a community participant on board who was prepared to act as liaison but it was not necessary.

### **7) Cargo/Hazmat/Materials Handling**

*a) How did any and all aspects (scheduling, communication, etc.) of the cruise onload and offload go?*

Very well – a cooperative MSO greatly improved the situation from two years before.

*b) How did materials handling, including hazmat, go during onload/offload and during the cruise?*

No problems from my perspective.

### **8) Laboratory and Other Vans**

*a) Did you use vans from the UNOLS van pool or from another source (specify)?*

No

*b) How did the procurement go?*

*c) Were lines of responsibility clear for obtaining appropriate vans and for setting up and maintaining the vans on board?*

*d) Was adequate time available to obtain the vans?*

*e) How well did the vans perform?*

*f) Were they appropriately equipped with ship connections?*

*g) How well did load and offload go?*

### **9) Lab and Your Science Equipment Setup/Installation**

*a) How well did set-up of the labs and science equipment go? For example, were you able to have the lab counters and unistrut adjusted appropriately to fit your needs?*

All went fine. USGS folks had challenges but that was because one of their key people did not show up. All worked out in the end and I think they were very happy.

*b) Did installation of science equipment outside of the ship's equipment go well? Were there any unexpected surprises in terms of needs or ability to support such scientific equipment? How clearly were special requirements for science equipment defined prior to the cruise?*

Again challenges of setting up MICA because critical USGS person did not show up but that was not an issue with ship or science support.

*c) Was anything identified during your cruise that should be recommended as a permanent addition to the ship's science equipment?*

The success of our GeoCam (referenced ice imagery) leads us to believe that the installation of two more aloft-cams pointed port and starboard could lead to collection of very valuable ice (and perhaps marine mammal) data.

#### **10) Information Technology On Board and On Shore**

*a) Communications (Local and remote E-mail, account set-up, internet access, data transfer on/off and within ship or between ships, Inmarsat and Iridium, radio). Were you satisfied with the capabilities? Were there computing resources or communications enhancements that you could have used but that were not available on board?*

They get better each year – particularly appreciated David Hassilev contacting science party long before cruise to let them know of process, constraints and get things set up before we arrived.

*b) How did the shipboard data collection, management, and archiving go? Were these services provided efficiently and made available in ways that promote rapid transfer of data to users?*  
Yes

*c) How well did operational technology work? (Map Server, board of lies, web cameras on board, monitors for changing among closed-circuit cameras, functionality of the closed-circuit cameras on board, winch display on back deck)*

MapServer as always is a remarkable tool. We do not use board of lies much nor other closed circuit cameras on board with exception of aloft-cam.

#### **11) Shipboard Science Systems**

*a) How well did these perform? This includes deionized water, multibeam, winches, environmental chambers, freezers, refrigeration, science seawater, underway data acquisition systems, ADCPs, depth sounders, etc.)*

This was our (UNH) first experience with the new multibeam. We believe that it is working properly but also believe that there are a number of adjustments that the manufacturer can make

to improve data collection in the ice. We will be interacting with manufacturer (and other users of ice-breaker deployed EM122's) about this.

*b) Do you think anything needs to be upgraded?*

### ***12) Deck Operations and Deployment/Recovery of Science Gear***

*a) How well did the planning, understanding of responsibilities and approaches, and implementation go for both science and crew?*

We had limited deck operations – only CTD stations and small buoy deployments – these went well.

*b) Was appropriate and appropriately sized safety equipment available?*  
As far as I was concerned.

*c) Were operations safe? Did everyone comply with safety requirements? Were any unexpected safety issues identified and were they dealt with?*

Again from my perspective operations were fine.

*d) Was there enough assistance as needed and/or requested with deployments and recoveries?*  
Yes

*e) Were communications effective with the bridge and winch control during deployments?*  
Reasonable but probably could have been a bit better with MST's.

*g) Other*

### ***13) Ice Conditions***

*How well was information about the ice conditions in the area of operations provided to the ship and to the scientific party?*

We had excellent ice information this year – in part due to collaborative work with Canadians but also we are seeing much better support from NIC.

### ***14) Small Boat Operations***

*If appropriate, please comment on:*

*a) Adequacy of boat briefs*

*b) Provision and availability of appropriate safety equipment*

*c) Identification of science needs and requirements*

*d) How well the operations went*

*e) Other*

### **15) Helicopter Operations**

*If appropriate, please comment on:*

*a) Adequacy of flight briefs*

*b) Provision and availability of appropriate safety equipment*

*c) Identification of science needs and requirements.*

*d) Other*

### **16) Food Service**

*a) How well were special dietary requirements (vegetarian, vegan, low-fat, etc.) identified and met?*

I believe that vegetarian options were provided for most meals though some were less than full meals.

*b) How was the quality of service and food, including outside of the three main meals of the day (e.g., quality and availability of food/experience for those working overnight)?*

In my mind this was the single most contentious issue on the cruise. Overall the general consensus of the science party was that the quality and particularly the variety of the food offerings were much less than previous years. Of particular concern at the beginning of the cruise was the mid-rat service. Mid-rats were initially only breakfast and for those scientists working through the night this meant at least two breakfasts back to back and on some days (like when the Saturday evening morale dinner was a breakfast) as many as five breakfasts in a row. Discussion of this situation with the ship's company led to a sincere effort on behalf of the food services staff to provide other options for mid-rats but as explained these could only be things they had extra of because they were unaware of the desire of the science party for other options for mid-rats. Inasmuch as this has been a point of discussion at almost every AICC meeting that I have attended I am surprised that this information is somehow not transmitted from year to year. Again, something as simple as cold-cuts out so that folks could make sandwiches would go a very long way to resolve this situation (and perhaps put less stress on the galley at mid-rats).

*c) Other*

### **17) Berthing and shared spaces (science conference room, gyms, laundry)**

*a) How did all aspects of housekeeping go?*

Always a battle to get science party to do their share but we took it seriously and tried hard.

*b) How did the berth assignments go?*

Much better this year – again given a clear statement of how many berths there were we had a tangible starting for discussions and negotiations which went very collegially.

*c) How were the check-in/check-out processes?*

Fine.

*d) Other*

### **18) Medical**

*a) Were needs, if any, met?*

As far as I know

*b) Medical history questionnaires*

*i) Could the forms be improved?*

Still believe that they should be filled out by physician at least.

*ii) How did the submission process go? (timing, acknowledgement of receipt, etc.)*

Still much confusion about where to send and poor communication amongst recipients e.g. we were getting requests from ship after they had been sent in.

### **19) Other comments (if any)**

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**Appendix – Additional Questions for Specific Activities or Instruments. Answer only if appropriate for your cruise.**

#### **1) Multibeam**

*a) How much real-time watchstander effort was required?*

We maintain two people on MB watch all the time.

*b) How much onboard ping editing was done in the post-processing?*

We completely edit and clean data on board.

*c) In both cases, who provided the people? Who was responsible for training the people?*

We provide people to stand watch and clean data but depend on science support on ship for KNOWLEDGABLE operators.

*d) Other Multi -Beam issues?*

#### **2) Diving**

*If you conducted scientific diving on your cruise, how did it go?*

NA

