

## **Healy and Polar class cruise debrief, held via teleconference (Rev 03/2012)**

**Date of post-cruise teleconference debrief:** 12 December 2012

**Chief Scientist:** Larry Mayer

**Name of Project:** ECS Mapping

**Name of Ship & Cruise Number:** HLY-1202

**Start and end dates of cruise:** 25 August 2012 – 27 Sept 2012

*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?* 100%

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

Negative – delays in getting underway and poor weather

Positive – tremendous cooperation from ships' company to make up for lost time, lack of ice in most areas

**2) Pre-Cruise Planning**

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

Still much redundancy in cruise planning forms but generally useful

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 – just asked for many times over

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

Yes

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

Yes but had to be changed many times 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?*

Can't speak for ship but it is helpful to be forced to think through needs and plans

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

Better clarification of meaning of some of the questions and reduce redundancy.

### **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?*  
Each year the communications improve (some of this comes from experience) – questions were answered in a timely manner – all was good.

### **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?*

Excellent

### **5) Environmental Permitting**

*a) Was any environmental permitting required?*

No

*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.)* Our work was far offshore – we did embark off Barrow though and coordinated with local community through CH2M HILL. We also had a community participant on board for our entire cruise.

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

*a) How did any and all aspects (scheduling, communication, etc.) of the cruise onload and offload go?* No problems with either on load or off-load – all was handled very well by USCG and others

*b) How did materials handling, including hazmat, go during onload/offload and during the cruise?* No problems

### **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? Our needs focus on the Multibeam Sonar – so they are pretty straightforward and all went well (after 8 years). We did have a problem with cooling in the lab (there was a fan failure) and the temporary fix (a large fan in the lab) was too noisy. This was no one's fault – best efforts were made by all given the circumstances.*

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?*

We dredged several time on our cruise – while the science party had experience doing this, the USCG crew on board did not. They were very cautious at first (this is good) but as experience was gained became more confident. During the dredging operations we witnessed exceptional ship-handling and seamanship.

c) *Was anything identified during your cruise that should be recommended as a permanent addition to the ship's science equipment? No*

### **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? We always want more but it was fine.*

*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?*  
Excellent support provided by Steve Roberts as usual.

*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)* Map Server is our prime tool – it is spectacular.

### **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.).* Multibeam worked as well as can be expected in conditions we encountered. Only serious problem we experienced was with calibration of the tension meter on the trawl winch that delayed our dredging operations until resolved. Excellent support from Dale Chayes and the Engineering officer resolved the issue.

*b) Do you think anything needs to be upgraded?* Comms to bridge – we could use a multibeam display that is an actual repeater of the display in science lab so that we can easily guide bridge with pointing of cursor.

### **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?*

Very well

*b) Was appropriate and appropriately sized safety equipment available?*

Yes

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

Yes

*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?*

Yes

*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?*

As well as can be expected – there was virtually no ice – weather became a more important issue.

**14) Small Boat Operations** None

*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** None except for embarkation of science team

*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?*

Fine

*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)?*

Here is where the USCG team really shined. After many years of frustration with mid-rats and other aspects of the meal service, the quality and variety of what was served this year was exceptional – as was the attitude of the entire galley staff. It was noticed and really appreciated by the science team.

*c) Other*

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

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

The vessel was noticeably cleaner this year than any deployment before (including going back to 2003). This was appreciated and encouraged all to keep spaces more tidy.

b) *How did the berth assignments go?* Despite largest scientific party we have ever had, this went reasonably well – at least better than most years. There is always some bargaining back and forth (in our case with the film crew) but at least we started with a clear understanding of how many science bunks there were.

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

Fine

d) *Other*

### **18) Medical**

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

Good support

b) *Medical history questionnaires*

i) *Could the forms be improved?* I still contend that an actual physical should be required for work in areas as isolated as ours.

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

Much smoother this year

### **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?*

This is our major focus so we have 2-3 people on each watch

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

We edit all data in near-realtime (i.e. within minutes of the end of the collection of a data line).

c) *In both cases, who provided the people? Who was responsible for training the people?* We provided all watch standers and data processors with Steve Roberts and Dale overseeing the hardware aspects.

*d) Other Multi -Beam issues?*

We need to continue to work with manufacturer to optimize the collection of data in the ice.

**2) *Diving*** None

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

**3) *Operations on the ice*** None

*a) Were on-ice operation briefings adequate?*

*b) Was appropriate safety equipment provided and readily available?*

*c) Were science needs and requirements adequately identified?*

*d) How well did the operations go overall?*

*e) Other on-ice operations issues?*

**4) *Science Support in Barrow***

Excellent – C2HM HILL continues to provide superb support.