Healy and Polar class cruise debrief (Rev 12/2013)

Date of post-cruise teleconference debrief: not applicable

Chief Scientist and contact coordinates:
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Name of Project:
Testing the northern route for Younger Dryas meltwater

Name of Ship & Cruise Number:
USCGC Healy 13-02

Start and end dates of cruise: 16Aug13-7Sep13

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

1) Overall Success of Cruise:

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

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)

Remarkably, HLY1302 had no issues due to equipment or personnel. The only problem was the ice that was thicker and farther south than we expected. This prevented us from working north along the coast of Banks Island, but the stations we occupied along the north slope of Alaska and Canada accomplished much the same thing.

2) Pre-Cruise Planning

a) How beneficial and useful is the cruise planning form and the Icefloe web site?
I didn't find it useful for anything but I suppose it helped the USCG.
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)?

Clear

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

Yes, except the USCG needs to understand that because we survey to find good core sites we do not know beforehand station locations.

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

Not especially.

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?

I suppose it was useful to the ship to know approximately where we intended to go, but most cruise planning while underway was worked out between the chief scientists and discussed with ship's officers each evening after dinner.

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

No.

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?

Pre-cruise comms from the USCG were extensive. From my perspective most of the wrinkles were worked out in the pre-cruise phonathon. Exact placement and operation of the coring system components was handled by OSU personnel and STARC.

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?

Very good cooperation between the science party and the OPS Officer.

5) Environmental Permitting

a) Was any environmental permitting required?

Yes, evidently. This was an issue that surprised me. I was given a heads up by Canadian colleagues who reviewed the official (State Dept.) request for clearance to work in Canadian waters. As it turned out, a few clearances were granted by local (including indigenous) jurisdictions, but it took a couple of months for one. Even though these were not contentious, had they not been requested, the ship may have been denied access.

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?

See above. It could have been worse, but someone should compile a list of access-granting agencies. I had the following permits/licenses:

•An exemption from the Environmental Impact Screening Committee of the Joint Secretariat, Inuvialuit Settlement Region

•A NWT Scientific Research License (from Aurora College). It cost about $150.

•A NWT Wildlife Research Permit

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.)

IN addition to formal access applications, the Karl Newyear of UMIAQ informed me that sending letters explaining the cruise to community leaders was important. I drafted a letter, he edited it, and then he sent copies to the following:

•AEWC (Alaska Eskimo Whaling Commission)
•BWCA (Barrow Whaling Captain's Assoc.)
•Mayor, North Slope Borough
•North Slope Borough Dept. Wildlife Management

People at UMIAQ also placed a native observer aboard.

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

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

No problems, but there was much discussion of how to get core sections off the ship. It ended up they were strapped to pallets and then loaded by hand into a container on the pier.

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

Only notable HAZMAT was the Cesium source in the core scanner. This was all handled by OSU.

8) Laboratory and Other Vans

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

Coring equipment vans and van for core scanner were from OSU. Not sure origin of van that held core sections.

b) How did the procurement go?

OK, I guess.

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

Yes.

d) Was adequate time available to obtain the vans? Yes.

e) How well did the vans perform? They just stood there.

f) Were they appropriately equipped with ship connections? Yes.

g) How well did load and offload go?

I wasn't present but I heard it went well.

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?

Everything was OK.

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?

No problems.

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

Nothing.

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?

I've heard all about problems with the ship's map server, but as we were only one research group and as Neal Driscoll had his own mapping software, integrated with his own GPS, we had no problems.

Chief Scientists should have unrestricted internet access.

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)

Everything worked as intended.

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.)

Slight problem with one of the winches that might have led to wear on sheaves. Problem seems to be they hadn't been serviced routinely. Didn't affect ops much.

b) Do you think anything needs to be upgraded?

Yes, the stupid pagers.

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?

No problems. Coring briefs each station got old real fast. The process was always the same.

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. Yes. None that I recall.

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

An overabundance of hands on deck.

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?

Actually it went quite well. We arranged an "ice liberty" that everyone enjoyed, and we went off looking for a large piece of multiyear ice that was being tracked by satellite.

14) Small Boat Operations Not appropriate.

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

Only helo ops were for embark, disembark. No issues.

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 am not aware that anything special was done for the couple of science party members who were identified as vegetarian.

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 opinion, meals were often too salty. Otherwise, no complaints.

c) Other

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

a) How did all aspects of housekeeping go? Very well.

b) How did the berth assignments go? Well, with one "adjustment" late in the cruise.

c) How were the check-in/check-out processes? What can go wrong when three Ensigns are in charge?

d) Other

18) Medical

a) Were needs, if any, met? Yes.

b) Medical history questionnaires

i) Could the forms be improved? Probably not.

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

OK, but I think there were some forms lost by the XO, and others not acknowledged. Why not send these directly to the medical officer?

19) Other comments (if any)

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? 12 hrs per day

b) How much onboard ping editing was done in the post-processing? Don't know that editing was done.

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

d) Other Multi -Beam issues? No.

2) Diving N/A

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

3) Operations on the ice No problems. The only on-ice op was ice liberty.

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

Very effective, but the arrival brief was painfully long. Also, if you're only staying a night, you probably don't need a vehicle and a radio. Eliminating those would have shortened the brief by half an hour.