

***Arctic Icebreaker Coordinating Committee (AICC) Meeting
November 9 & 10, 2016- Wednesday & Thursday
Rainier Room-U.S. Coast Guard Facility
Alaskan Way- Pier36-Seattle, WA***

Executive Summary

The UNOLS Arctic Icebreaker Coordinating Committee, (AICC) met on Wednesday and Thursday, November 9 & 10, 2016 at the US Coast Guard Base, Alaskan Way, Seattle, Washington. This was our annual in-person meeting and was well attended with 45 participants and 7 participants via webex. Included in the meeting's agendas was the AICC Chair Report, Agency Reports, US Coast Guard Reports, *Healy* debriefs, and a very informative presentation on the Alaska Eskimo Whaling Commission, to name a few highlights.

Minutes

AICC Chair Report

Bob Campbell/URI and AICC Chair opened the meeting with welcome remarks and introductions. Highlights from the AICC activities conducted in 2016 were covered. The current AICC membership was reviewed with two terms to be renewed in August of 2017. One key activity for the AICC was a request from the Coast Guard regarding the science capabilities of the new heavy icebreakers. AICC responded with a list of published documents from the National Academies as well as UNOLS Reports. The UNOLS Polar Research Vessel Study from 2012 was one. The NSF has backed away from the heavy icebreakers science capability due to cost in light of low proposal pressure in recent years. Comments were offered that there is a lot of interest in the community to having the new Polar class heavy icebreakers instrumented. Even a roll-on-roll off option could be considered.

Agency Reports

NSF/Polar

Jen Mercer/NSF-Polar and Frank Rack/NSF-Polar were in attendance and Renee Crain Wagner/OSTP joining via webex to give the NSF agency report. Staff changes are that Dr. Jennifer Mercer is the new program manager for Arctic Research and Support & Logistics with a focus on Greenland and Dr. Frank Rack is the Program Manager for Arctic Research Support & Logistics for marine operations and Alaska projects. Dr. Renee Crain Wagner is on assignment to the Office of Science and Technology Policy for the Arctic Executive Steering Committee, in the role of Executive Secretary. She will be on detail to the White House until December 2016. On the budget, NSF is under a continuing resolution through December 9, 2016. For ship requests, NSF is seeing fewer requests for the *Healy* and principal investigators are asking for other ships. One reason may be that the *Healy* is a larger ship with the 50 berths than are required for the current science programs.

US Coast Guard Report

Rajiv Khandpur/USCG and CDR William Woityra provided the report from headquarters. This included status updates on the *Polar Star*, *Polar Sea*, and the *Healy*. The US statutes and policies which provide the authority to the Coast Guard were reviewed. The Coast Guard is responsible for the resupply of Thule, Greenland and they have an arrangement with Canada to assist in this. The *Healy* midlife is currently planned to begin in the fall of 2023 and is expected to be a 3-4 year project with 5-6 months of dry-dock work done annually. However the ship will remain operational during the mid-life refit for mission tasking.

A High Latitude Study is being conducted with a recommendation for (3) heavy and (3) medium icebreakers to be built. In September 2015 President Obama announced steps to accelerate the acquisition of the new heavy icebreakers.

We briefly discussed the NSF owned science equipment that is currently on the ships and in the warehouse. There needs to be a discussion between the Coast Guard and NSF on how best to account for this equipment.

The Icefloe web page was reviewed and there are some improvements needed in the area of shore-side crane support and who is arranging and paying for this during a mobilization and demobilization.

US Arctic Research Commission

John Farrell/USARC provided a report on the USARC which covered the duties, current list of commissioners and goals. Dr. Larry Mayer/UNH was recently appointed to the Commission. The (6) Priorities and Goals for Arctic Research were reviewed. A new Arctic Research Plan is scheduled for release in December 2016.

Alaska Eskimo Whaling Commission

Arnold Brower/AEWC presented on the work of the AEWC. He provided an interesting overview of life as subsistence hunters and the importance of protecting the balance between the bowhead whale population and the food source for the Arctic communities. Quotas are established in balance with the replenishment of the stock. The time frame each year from September 15th to October 25th is important for the fall hunt and research activities around these times need to be planned. This time slot must be free of vessel activity, which includes research vessels. In 2016 the installation of fiber optic cables disturbed the whaling activity such that the small boats had to go further offshore, (up to 40 miles) in search of whales. It is very important that communication be shared freely between all these groups to avoid potential conflicts. Arnold shared that there is a communication center in the AEWC Office which can help top reach all the villages outside Barrow.

2016 Barrow Support and 2017 Barrow Logistics

Anna Schemper/PFS-CPS gave this report. She began with an explanation of what CH2MHill is and the organizational structure of the company. A review of recent Barrow logistics services was given. There is an increased effort by UIC Science to strengthen the relationship with science and the whaling captains.

They continue to help build the community observer program and assist in assigning observers when needed.

Tasha Edwards/UIC

She facilitates community relations and activities among the villages. Her presentation included the importance of cultural awareness and sensitivity training. UMIAQ Environmental is part of the Ukepeagvik Inupiat Corporation and they can assist in helping to build communication channels.

Kaare Erickson/UIC

Kaare works as an archeologist as well as the community liaison with UIC Science in Barrow, Alaska. He presented an overview of the Ukepeagvik Inupiat Corporation organization and the history of supporting the scientific community since the 1940's. UIC Marine Services can assist with logistics. They also recently added (2) new landing crafts at Barrow which can be used for science and field work.

Kaare's talk then shared the concerns around whale migration patterns for both the spring and fall hunt. There is concern that vessel activity has altered the patterns of migration. Local representatives have identified their concerns and they want to be part of the solution to these issues. Increased communication among all concerned groups can help. The outreach work that Carin Ashjian/WHOI has done with the local communities has been successful and is a good model for others to follow. It is important to reach out beyond just Barrow to the outer communities and Kaare Erickson has offered his assistance to the community in this regard.

BOEM Report

Heather Crowley/BOEM gave this report. BOEM supports approximately 75 studies per year in the Arctic. Her slides included planned new programs for FY 2017, all of which are dependent on the federal budget. BOEM also supports a marine bird distribution and abundance study in offshore waters program. They are looking for cruises of opportunity to place observers on board.

R/V *Sikuliaq* Report

Murray Stein/UAF gave the report on the *Sikuliaq*. The schedule has 280 days planned in 2016. The target is 300- 315 days which helps to keep the ship's day rate down. The Univ. of Alaska/Fairbanks now has a public outreach officer who is working on ship issues. In 2016, the Sipler & Juranek cruises had issues with subsistence whaling concerns which were worked out. There will be another cruise in 2017 which will also take coordination.

A transit of the Northwest Passage is being planned for the fall of 2017 in order to position the ship for a Pickart cruise off Greenland in winter of 2018.

Office of Naval Research/Arctic Operations.

Tim Schnoor/ONR presented the ONR report with an update on the ONR owned ships which are part of the US Academic Research Fleet, (*Atlantis, Revelle, Thompson, Kilo Moana, Neil Armstrong* and *Sally Ride*). ONR typically supports ~ 500 days per year on the UNOLS fleet in the areas of physical oceanography and ocean acoustics.

ONR's CANAPE Project- Canada Basin Acoustic Propagation Experiment

Robert Headrick/ONR program manager for the CANAPE program joined the meeting via webex and gave an overview of the project. It began in summer of 2015 with a pilot study done from the *R/V Sikuliaq*, then followed up with a *Healy* cruise in the Beaufort in August of 2016. Deep Moorings were deployed with tomographic arrays to measure propagation loss. The cruise results from both the *Sikuliaq* and the *Healy* are positive. Permitting for these cruises were handled by N45, which is the environmental office for OPNAV. N45 worked with NOAA as well as US Fish & Wildlife.

Operations, Scheduling and Planning for 2016 & 2017

Dave Forcucci/USCG presented the past years schedule for *Healy*. In 2016 they had a NOAA cruise of 58 days and an ONR cruise of 32 days. There were no NSF programs in 2016. In 2017 a 28 day NOAA program and 28 ONR program are being planned. Dave Forcucci has been tracking foreign vessels working in the Arctic region and the matrix can be found in the slides appendices.

Interactions with others, clearances, permits, and native communities

Lee Cooper/UMCES presented this report beginning with the Arctic Waterways Safety Committee. The covered areas of responsibility, the organizational structure, members, as well as the meeting schedule were reviewed. We discussed the use of the term "Standard of Care" and cautioned that a standard of care is a legal document in which negligence can be assigned. Perhaps it would be better if it was called a "Best Practices" document. There is still concern over the practicality of the lead time requirements for some cruise planning documents.

Debriefs-

The AICC committee then conducted the debriefs for the Hopcroft and the Worcester 2016 field season of *Healy* cruises. The Mayer cruise debrief for *Healy* HLY 1603, will be conducted at a later date.

Russ Hopcroft and Katrin Iken
Hidden Ocean: Chukchi Borderlands 2016
USCGC Healy- HLY -1601
July 2 – August 10, 2016

Peter F. Worcester, Chief Scientist
CANAPE (Canada Basin Acoustic Propagation Experiment)
USCGC Healy, HLY-1602
August 16 – September 17, 2016

Thursday 10 November 2016

STARC Report

Lee Ellett/SIO, Brett Hembrough/SIO and Andrew Woogan/OSU reported on recent STARC activities. They are currently in the 4th year of a 5 year grant cycle. The STARC organizational

chart was shared as well as the personnel changes that have occurred over the past year with the departure of personnel and new personnel who have joined.

The annual maintenance of science systems included CTD sensors, pCO₂ system, gravimeter, and multibeam systems. A Hypack system was installed as a potential replacement for the Mapserver.

The STARC support for each *Healy* cruise was reviewed as well as the challenges and completed projects on each leg. The shakedown cruise on May 10-14, 2016 departed directly from the shipyard was compressed this year.

Brett Hembrough/SIO joined the STARC team in August 2016.

Hypack is being considered as a replacement for the mapserver. It would be helpful to have a requirements document on what the AICC wants and expects from this system.

Carolyn Ruppel/USGS and on the AICC offered that she has used Hypack and that she has technical staff that are familiar with Hypack.

Action Item: A telcon with AICC and STARC should be planned very soon.

USCG/ESU Report

Jen Bryant/USCG gave this report on the group's activities. The IT support and network services personnel group remains consistent with Dave Cohoe, Jen Bryant, Sarah Kaye, Adam Stenseth, and Jeff Hardwick. Jen also reviewed the Wide Area Network and all the areas of responsibility.

Ice Imagery

Dave Forcucci/USCG briefly discussed the ice imagery and he is preparing a debrief on the past season's ice imagery.

University of Alaska SOP Document

Brenda Konar/UAF and Lauren Frisch/UAF joined the meeting via webex to give an update on the efforts by the University of Alaska on creating a standard operating procedures document for operations in the Arctic. The draft document has been sent to NSF for their review and was approved. It has been sent to the Alaska Waterways Safety Committee for their review. They are now requesting comments from the AICC.

Arctic Waterways Safety Committee

The AICC then discussed the current draft of the AWSC document.

One issue is the cost of attending meetings in Alaska. The PI's are concerned with the cost of travel as well as the time involved. This issue will need to be resolved.

Adjourn Meeting- The fall meeting of the AICC was adjourned at 1200 on Thursday November 10, 2016.