

Arctic Icebreaker Coordinating Committee (AICC) Report

Bob Campbell
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UNOLS Council Meeting

June 2, 1017

Seattle, WA

AICC Current Membership

[Aguilar-Islas, Ana](#) UAF 10/15 to 10/18

[Campbell, Robert \(Chair, AICC\)](#) URI 01/16 to 01/19

[Hartz, Steve | \(RVTEC Rep, ex-officio\)](#) UAF 05/07

[Laney, Sam](#) WHOI 10/15 to 10/18

[Lomas, Michael](#) Bigelow Laboratory 08/14 to 08/17

[Persson, Ola](#) CU-Boulder 10/15 to 10/18

[Polashenski, Christopher](#) USACE-CRREL 08/14 to 08/17

[Ruppel, Carolyn](#) USGS 10/15 to 10/18

[Russell, Doug | \(RVOC Rep, ex-officio, AICC\)](#) UW 09/13

[Welker, Jeff](#) UAA 10/15 to 10/18

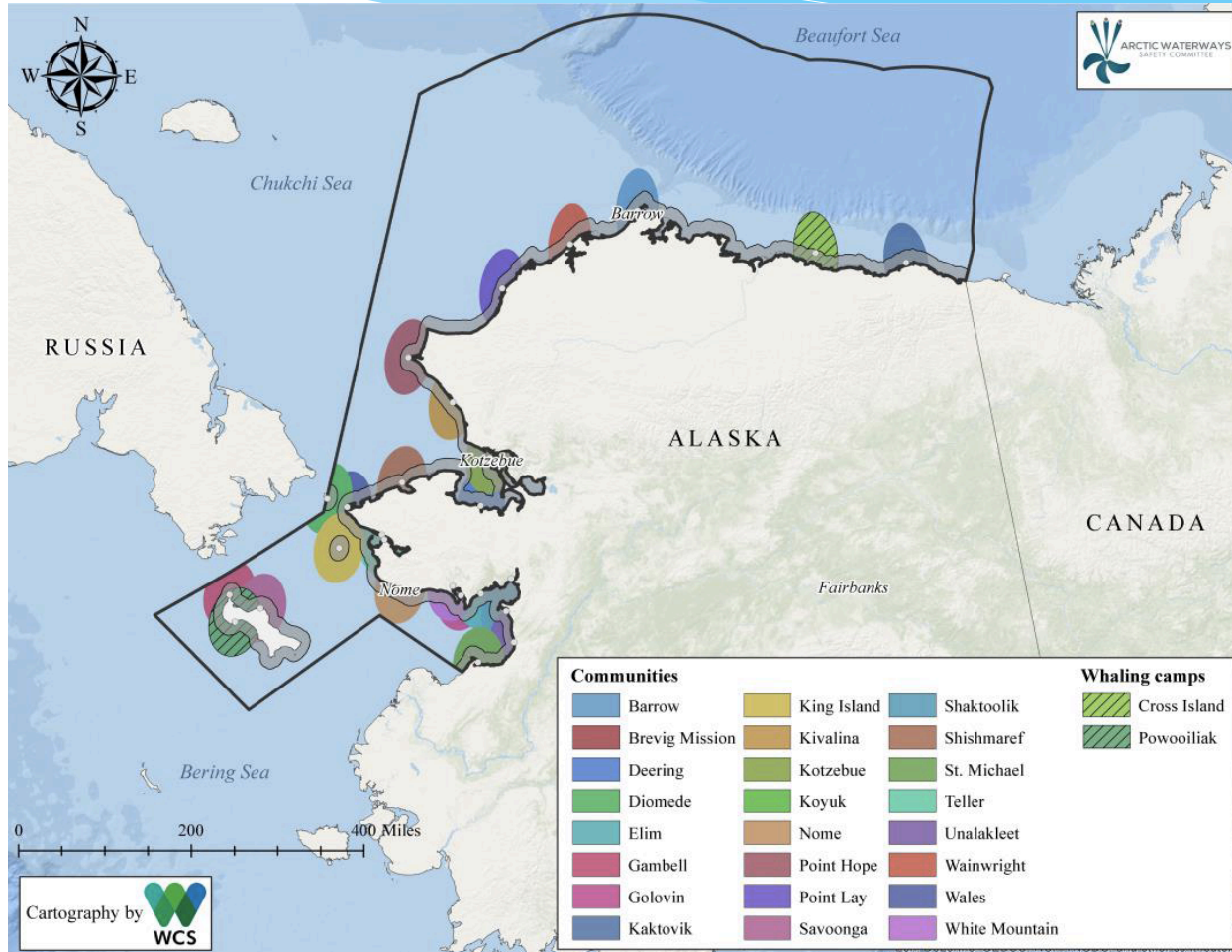
Activities -2017

- * Debrief HLY1603
- * Enhancement of Healy's Mapserver capabilities (Telecon June 7)
- * Continue assisting with development of conflict avoidance documents
- * Provide assistance with science requirements for new, heavy PIB

Mapserver Capabilities

- * 1. Satellite Imagery (including Radarsat, as well as visible wavelengths)
- * 2. Bottom Topography
- * 3. Ship's underway science systems (multibeam, temperature, salinity, fluorescence, etc.).
- * 4. Locations of (all past Healy) science stations, moorings, instruments
- * 5. Cruise planning tool.
- * 6. Gazetteer. A baselayer containing geographical information.

Community and Subsistence Activity Locations



New Heavy Polar Icebreaker (PIB)

- * Coast Guard accelerates procurement process for new, heavy icebreaker
 - * Request from White House in 2015 to move forward
 - * Accelerate acquisition of replacement heavy icebreaker and planning for additional icebreakers (CG FY17 Budget - **\$150M**)
 - * High Latitude Study recommends 3 heavy and 3 medium PIBs
 - * Request made to AICC for science icebreaker needs and mission requirements
 - * Space, power and weight to complete all CG statutory missions, **including science**
 - * **NSF does not support significant science capabilities on new, heavy PIB**

USCGC Healy 2017 Schedule



- * 26 Jul/5 Aug, Chukchi Sea, USCG/Tripp, HLY1701
- * 29 Aug/12 Sep, Chukchi Sea, NOAA/Pickart, HLY1702
- * 22 Sep/10 Oct, Canada Basin, ONR/Worcester, HLY1703

R/V Sikuliaq 2017 Schedule



- * 9 Jun/28 Jun, N. Bering/S. Chukchi, NPRB/Danielson
- * 30 Jul/23 Aug, Chukchi/Beaufort, NSF/Juranek
- * 25 Aug/18 Sep, Beaufort, NSF/Ashjian

Foreign Vessels



- * Canada, CCGS Sir Wilfrid Laurier, 9-23 Jul, Bering/Chukchi
- * South Korea, RV Araon, 31 Jul/27 Aug, Bering/Chukchi
- * Japan, Oshoro Maru, 23 Jun/27 Jul, Bering/Bering St.
- * Japan, Yushi Maru 2, 8 Jul/21 Sep, Bering
- * Japan, RV Mirai, 20 Jul/2 Oct, Bering/Chukchi/Basin
- * China, Xuelong, ?



AICC Meetings -2017

- * Mapserver Telecon, June 7
- * AICC Spring Meeting, June 12, via Webex Teleconference
- * AICC Fall Meeting, TBD, US Coast Guard Facility, Seattle, WA

Reducing Conflicts Between Research Cruises and Subsistence Activities

- * Arctic Waterways Safety Committee (AWSC)
 - * Co-management orgs., industry, and other groups
 - * Bring users together to define best practices to ensure a safe and predictable operating environment
 - * Standard of Care Document for Research Cruise Operations
- * University of Alaska Fairbanks (UAF)
 - * Community and Environmental Compliance Standard Operating Procedures (CECSOP) for R/V Sikuliaq research operations

Polar Research Vessel Update

POLAR ICEBREAKERS

New POLAR ICEBREAKERS (PIB):

- * The Coast Guard held an "industry day" in March that presented the basic operational requirements of the new PIB(s) to the US shipbuilding industry. (public version of that document is provided).
- * Note that there are some substantial scientific capabilities included in the requirements document that NSF/PLR does not support.
- * Congress has made clear their intention that agency-specific requirements in the new PIBs need to be funded by the requesting agencies. NSF's current and projected budget is not able to support these additional capabilities and feels that science operations should be conducted by research vessels.
- * On an as-needed basis, **a research vessel can be paired with a heavy icebreaker to operate in heavier ice conditions**. The science capabilities included in the requirements document were, in large part, placed there by NOAA.

New Heavy Polar Icebreaker (PIB)

- * FY 17 Budget \$150M (DOD)
 - * CG awarded 5 contracts worth \$20M for heavy polar icebreaker design and analysis
 - * Bollinger Shipyards, LLC, Lockport, LA; Fincantieri Marine Group, LLC, Washington, D.C.; General Dynamics/National Steel and Shipbuilding Co., San Diego, CA; Huntington Ingalls, Inc., Pascagoula, MS; and VT Halter Marine, Inc., Pascagoula MS
- * Studies completed within next year, contract awarded 3rd quarter of FY2019
- * First icebreaker delivered between 2023 and 2026

National Academies Polar Icebreaker Cost Assessment Study

- * Describe current and emerging requirements for the CG's polar icebreaking capabilities
- * Identify potential design, procurement, leasing, service contracts, crewing, and technology options
- * Examine:
 - * CG cost estimates for procurement and operating
 - * **Incremental cost to augment design for scientific missions**
 - * **Potential to offset costs through cost-sharing with other Fed agencies**
 - * US icebreaking capabilities compared with other nations that conduct research and other activities in the Arctic
- * Examine all included costs including: lease, operation, maintenance; disposal at end of life, interest payments, etc.
- * Held 5 meetings since Dec. 2016; report due out June 2017

Polar Star Science Capabilities



- * Science capabilities not currently being maintained
- * No money to maintain, remove or recapitalize science gear
- * Only current mission – McMurdo resupply