

ARCTIC ICEBREAKER COORDINATING COMMITTEE (AICC)

**Report to UNOLS
7-8 March 2011**

Photo courtesy USCG



Arctic Icebreaker Coordinating Committee (AICC): Current Membership*

Committee Member	Contact Information	Term Dates
Robin Muench, ESR (Chair)	rmuench@esr.org	01/2007 to 12/2012
Lee Cooper, UMCES	cooper@cbl.umces.edu	09/2008 to 09/2014
Don Perovich, CRREL	donald.k.perovich@usace.army.mil	05/2008 to 05/2014
Karen Frey, Clark U.	kfrey@clarku.edu	10/2009 to 10/2012
Jeremy Mathis, UAF	jmathis@sfos.uaf.edu	10/2009 to 10/2012
Luc Rainville, UW/APL	rainville@apl.washington.edu	11/2009 to 11/2012
Larry Mayer, UNH	larry@ccom.unh.edu	11/2009 to 11/2012
Robert Campbell, URI	rcampbell@gso.uri.edu	01/2010 to 01/2013
Doug Russell, UW (RVOC Rep.)	dgruss@u.washington.edu	07/2010 to ----
Steve Hartz, UAF (RVTEC Rep.)	sjhartz@alaska.edu	05/2007 to ----

*March 2011

Note:

- ➡ Memberships for Lee Cooper and Don Perovich extended for second terms.
- ➡ Doug Russell has replaced Dan Schwartz as RVOC Rep.

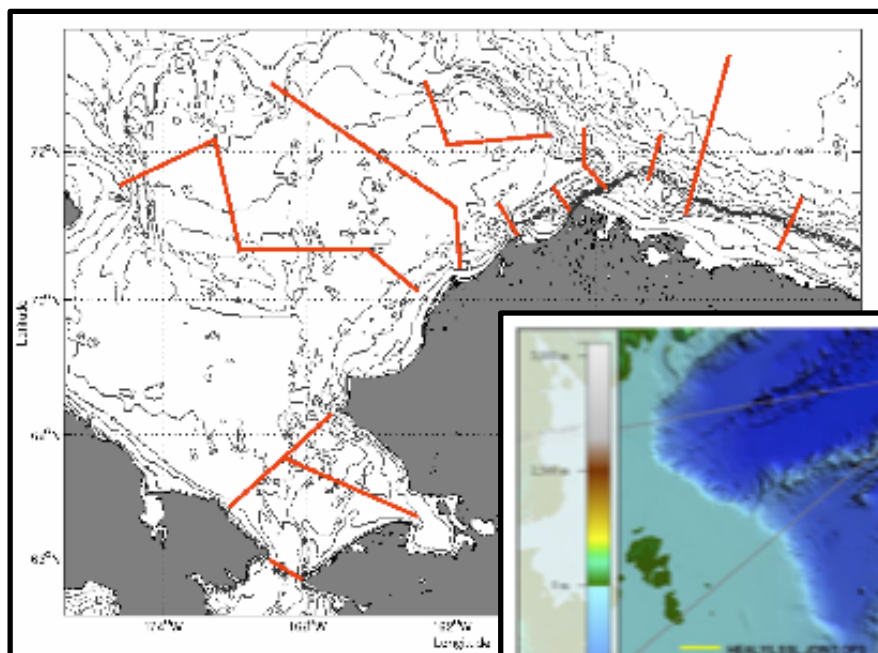
Notable Winter 2010-11 Accomplishments

- ➡ Posted an online tutorial (on IceFloe) focused on assisting new investigators in communications with Alaskan native groups in order to enhance useful information exchange and minimize potential for conflicts between scientific and native subsistence activities.
- ➡ Recast the Alaskan Native “Observer” Program as a “Participant” program in order to better describe their shipboard roles.
- ➡ Continued development of plans for more efficient on-deck stowage of vans and for provision of an improved winch monitoring & control system.
- ➡ Discussed and put into motion plans for improved mechanisms for tracking and storing hazardous materials aboard ship.
- ➡ Final stages of discussions to optimize use of science berthing.
- ➡ Participated in finalization of plan for sharing tech personnel with UNOLS institutions.
- ➡ ****Continued discussion over NSF provision of science equipment for the USCGC Polar Star.****

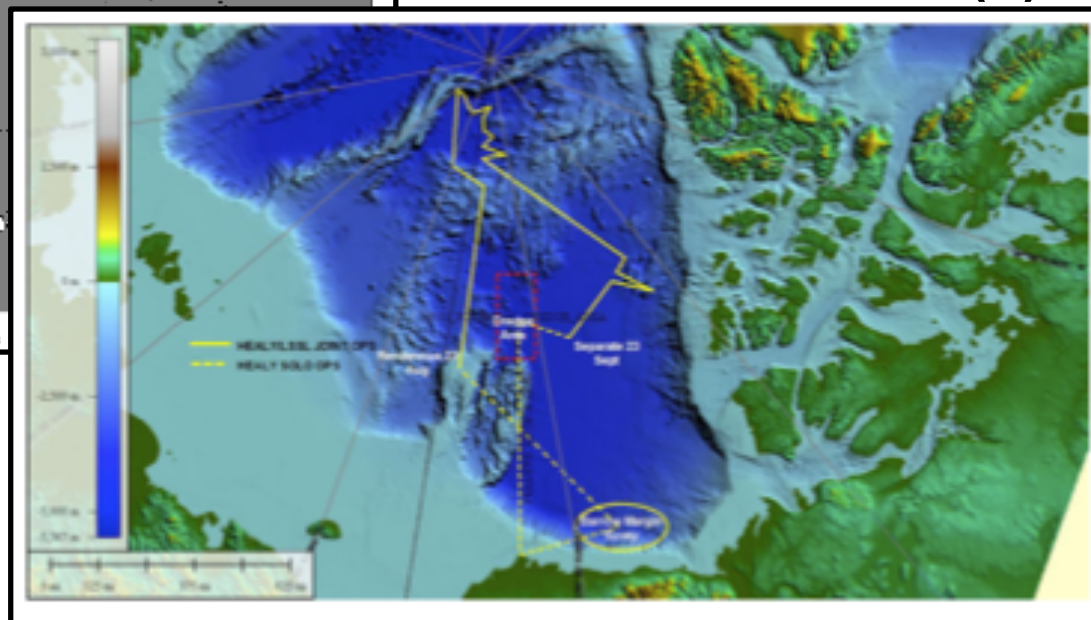
Scheduled 2011 Field Activities in The Arctic USCGC *Healy*

- (1) June 25 – July 29, Dutch Harbor - Kodiak:** Impacts of climate on ecosystems and chemistry of the Arctic Pacific Environment. Chief Scientists Kevin Arrigo and Don Perovich
- (2) August 11 – September 28, Barrow - Barrow:** Multibeam echosounder mapping on the northern Alpha-Mendeleyev Ridge in support of delimiting an Extended Continental Shelf. Chief Scientist Larry Mayer.
- (3) 5 - 27 October, Nome – Dutch Harbor:** Assessment of the Western Arctic Boundary Current and its role in the Arctic ecosystem and climate change. Chief Scientist Robert Pickart

More details available on IceFloe (<http://www.icefloe.net>)



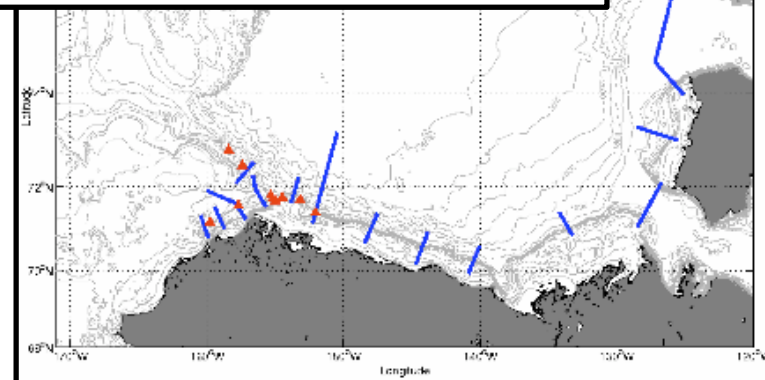
(1)



(2)

(3)

Cruise tracks illustrate geographical coverage of western Arctic during the 2011 summer season (numbers refer to time sequence of operations listed on previous slide)



Things were tough last year...

POLAR RESEARCH

Broken-Down Icebreakers Hamstring U.S. Science

Biologist Carin Ashjian is hoping that her research cruise next winter will fill in some of the many blanks about how the Arctic ecosystem behaves during that forbidding

season. But to do so, she'll need help from a good mechanic.

That's how it works these days for scientists whose access to the polar regions

depends on an over-the-hill and increasingly fragile U.S. icebreaking fleet. A 2006 report from the National Academies called for building two new icebreakers (*Science*, 6 October 2006, p. 33), but Congress has so far been unwilling to pony up the estimated \$2 billion or more that would be needed to upgrade the fleet. The most that supporters have achieved to date is a Senate-backed call for a cost-benefit analysis of the nation's icebreaking needs.

Such an analysis won't help Ashjian, a scientist at the Woods Hole Oceanographic Institution in Massachusetts. Her 6-week cruise aboard the Coast Guard cutter *Polar Sea*, the world's most powerful icebreaker, would be the first such scientific exploration of the Bering and Chukchi seas in January, Ashjian says. The goal is to provide information on water temperature, nutrient chemistry, and other biological and physical characteristics of this poorly understood ecosystem.



Crunch time. Neither of the U.S. Coast Guard's two polar-class icebreakers, shown operating in Antarctica in 2002, are currently serviceable.

CREDIT: PETER WEST/NATIONAL SCIENCE FOUNDATION

... and They've Not Improved Much Since ...



USCG 2009 photo

USCGC *Polar Sea*: decommissioning scheduled for 2011

Online Information Sources for the AICC

The **UNOLS** Website:

<http://www.unols.org/committees/aicc/>

The **IceFloe** Website
(maintained by the US
CG)

<http://www.icefloe.net>

