

2004 Icebreaker and AICC Activities

Carin Ashjian, AICC Co-Vice Chair

AICC



- Margo Edwards (Chair)
 - Carin Ashjian Co-V. Chair)
 - Henrietta Edmonds (Co-V. Chair)
 - Robert Bourke
 - Dale Chayes (RVTEC)
 - Bernard Coakley
 - Rolf Gradinger
 - Peter Minnett
 - Dan Schwartz (RVOC)
 - Rebecca Woodgate
- UNOLS Office

Photo by S. Roberts, HLY0402

AICC Activities 2003/2004

- November 2003 Meeting at USCG, Seattle
- March 2004 Meeting at NSF
- Debriefs of 2003 Cruises
- Revision of AICC Annex of UNOLS Charter
- New Committee Member: Rolf Gradinger (UAF) who specializes in two (ice, biology) of the science areas we targeted
- Letter of support to Tom Pyle for continued education outreach in Arctic via TREC program
- Continued to work with USCG to determine long range solution for science system support
- Participated in Booz Allen Hamilton Science Mission needs analysis
- Monitor and maintain interest in issues relevant to Arctic icebreakers from the critical to the near mundane

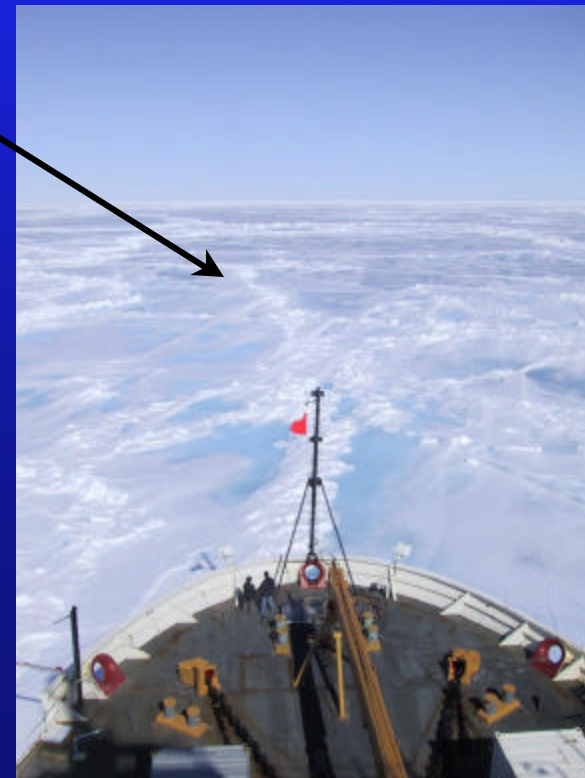
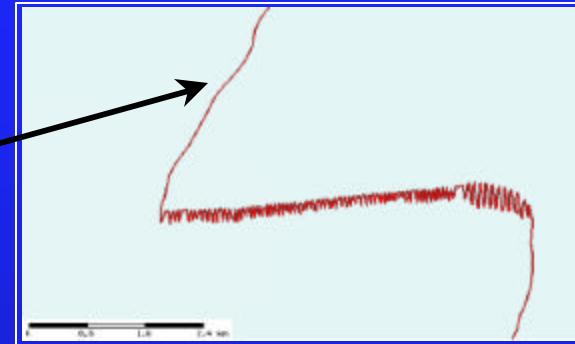
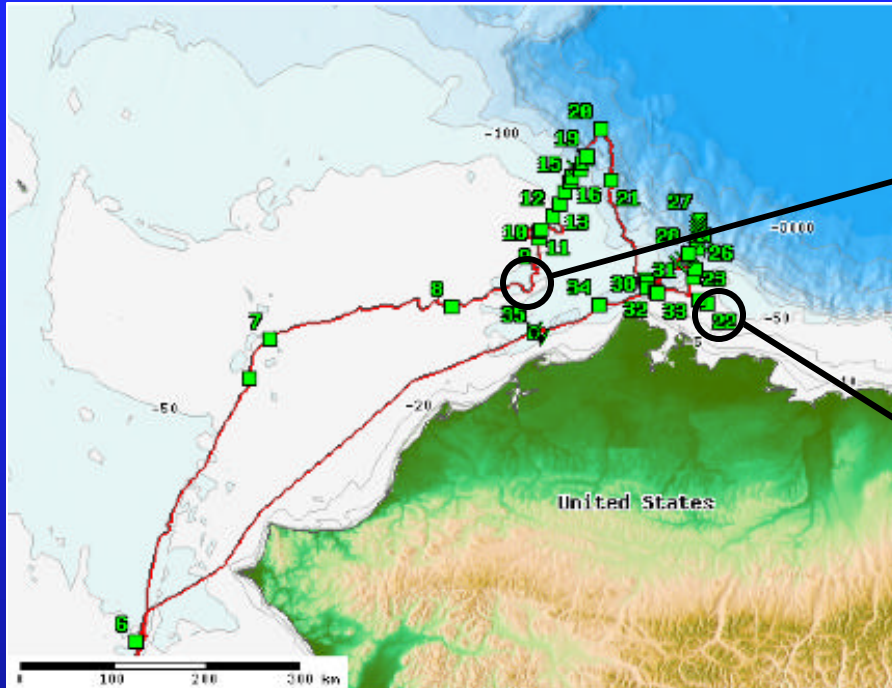
Healy in 2004

- Five Cruises:
 - Deep-ocean Assessment and Reporting of Tsunamis (DART) in early May (Buoy Servicing)
 - Shelf-Basin Interactions (SBI) Process Cruise I (40 days, May-June)
 - SBI Process Cruise II (40 days, July-August)
 - SBI Mooring Recover Cruise (30 days, September)
 - NOAA Mapping (October)
- Two foreign port calls:
 - Yokusuka, Japan and Provideniya, Russia
- Installation and implementation of Position and Orientation System (POS MV)
- Return to Seattle on November 8



Photo by S. Roberts

Spring 2004 SBI Cruise on *Healy*



- Heavy ice limited track to two shelf-basin transects
- A lot of backing and ramming
- “Pinched and beset” for a brief time

Photo by S. Roberts

Summer 2004 SBI Cruise on *Healy*

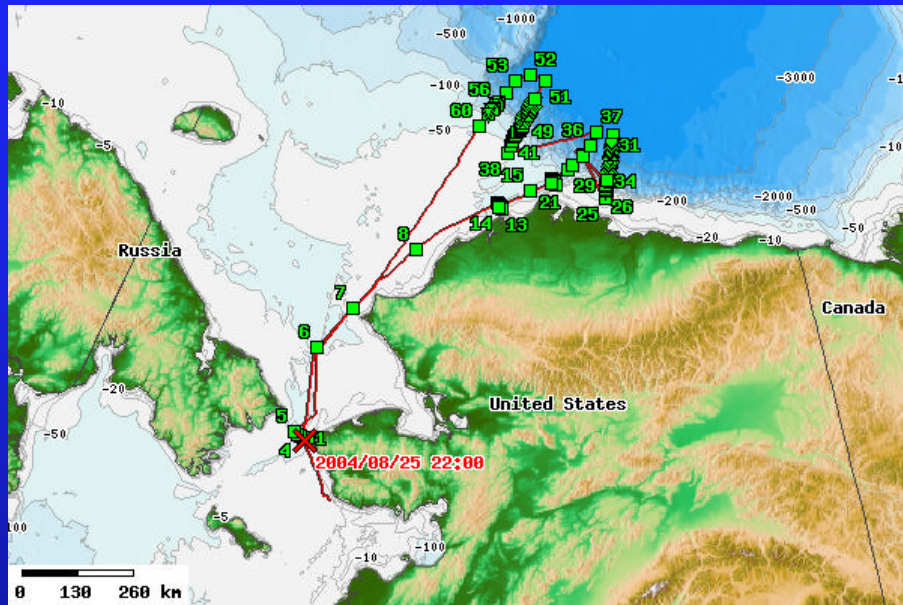
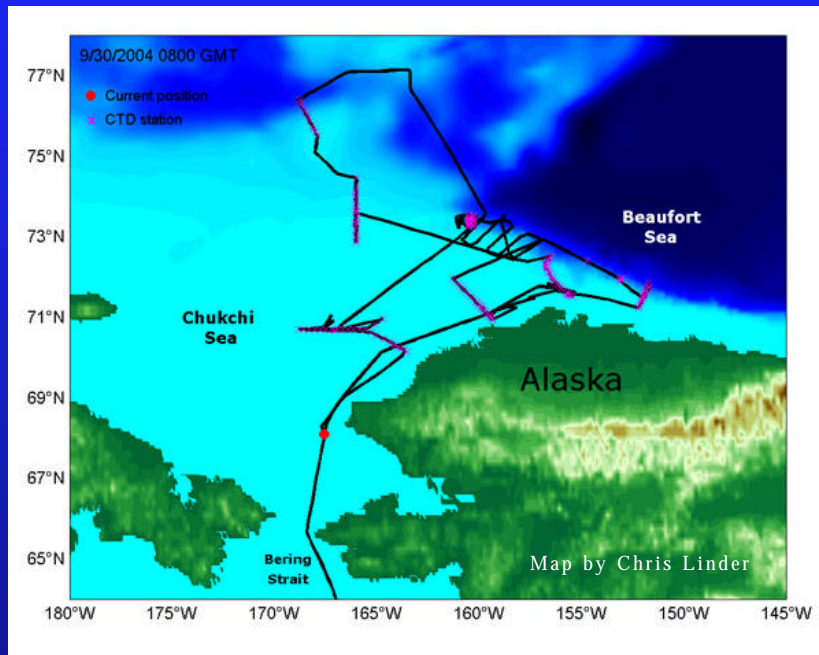


Photo by S. Roberts

- Sampled along four shelf-basin transects and across Barrow Canyon at three locations
- Very little ice (note heavy seas)

Fall SBI Mooring Cruise



- Very little ice
- All SBI moorings recovered successfully

Extremely Successful Science Season



Photo by
Justin
McGuire

- Spring SBI Cruise - 35+ stations
- Summer SBI Cruise - 60+ stations
- Fall SBI Cruise - 157 CTD stations
- Excellent outreach:
 - Two teachers
 - www.whoi.edu/arcticedge
 - www.joss.ucar.edu/sbi/catalog
 - sbi.utk.edu
 - BBC, US News and World Report, The News Hour (PBS)



Photo by Kevin Beaudoin and Jim Swift

Healy in 2005 and beyond

- 2005 (nominal dates!):
 - Leave Seattle June 1
 - Alaska margin (Darby, 14 days)
 - NOAA Mapping (30 days)
 - Dutch Harbor, August 1
 - Trans-Arctic Cruise with Oden
 - Tromsø, Norway, October 1
 - Seattle, Mid-December
- 2006:
 - Lawver (40 days)
 - Polar Bear Studies



Photo by Justin McGuire

Polar Sea and Polar Star

- Both returned from Antarctica in the spring needing repairs

Polar Sea -

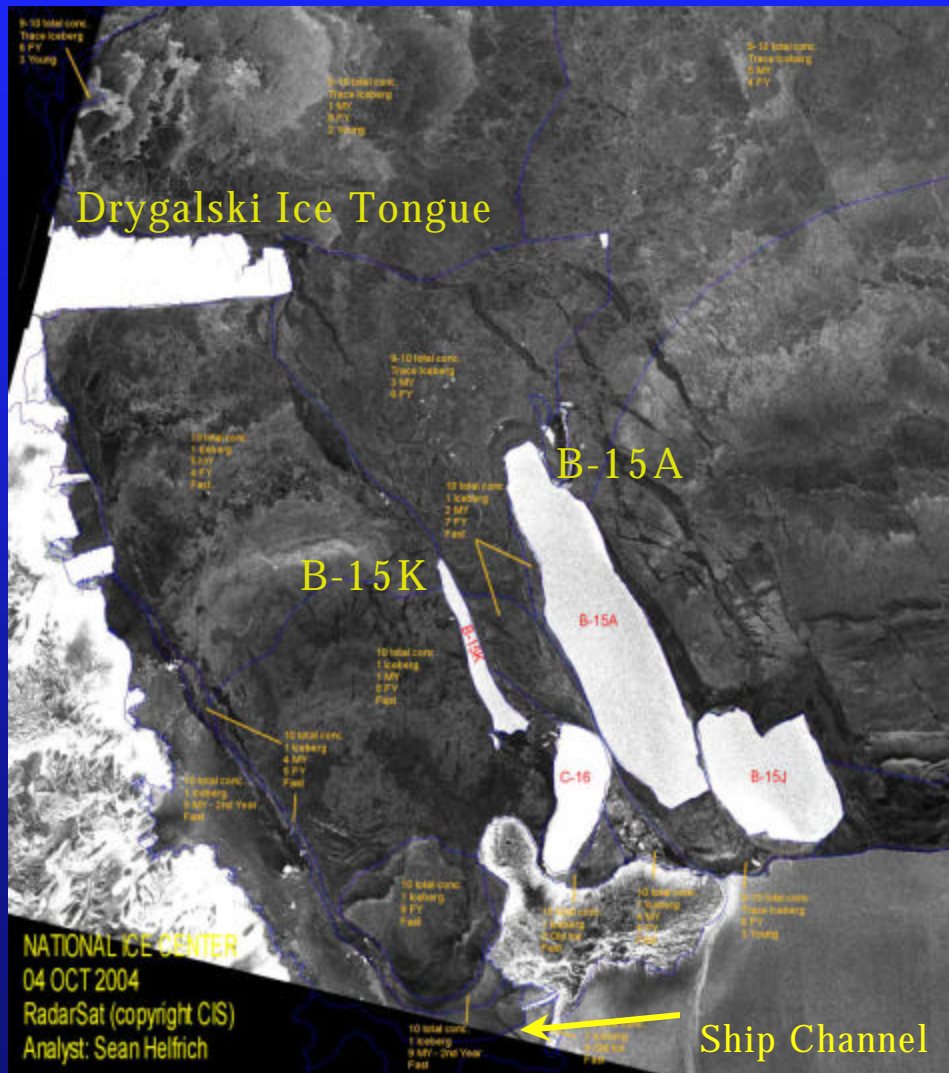
- Two of three engines were condemned
- No funds available at present
- Two years to fix once funds found (2007!)

Photo by Ed Beale

Polar Star

- Repairs completed
- Shakedown cruise October 12-15
- Departure for Antarctica for Deep Freeze 2005 on November 1 (alone)
- The NSF is exploring options to lease a foreign icebreaker to assist Polar Star in Deep Freeze

Will Two Ships be needed?



- A lot of fast ice to break through
- Potential calving of icebergs, especially from B-15k and Drygalski Ice Tongue
- Thicker than usual ice

At the moment, Polar Star will try on her own. A single ship operation could be a problem now and in the future

Other AICC Interests - How will these impact science?

- Ship Life Extension Program and the future of US icebreaker fleet (discussed by Jon Berkson)- The AICC is particularly interested in the impact that the icebreaker “shortage” potentially may have on Arctic science missions
- The USCG Science Mission Needs Analysis - Booz Allen Hamilton conducted surveys (both interviews and web - based) earlier this year; report will be completed in November

More AICC Interests

- Renewal of the Memorandum of Understanding (how to support the cost of icebreakers) between the NSF and the USCG
- AICC continues to work with the USCG to arrive at a long-term solution for science systems support for the icebreakers. This year, a group from LDEO was contracted by the USCG to provide onboard science support, including integration of new science equipment (POS-MV) and maintenance and data archiving for onboard systems

Next for AICC

- Fall Meeting, Seattle, November 18 & 19
- De-briefs for the five (!!) science cruises on Healy this summer
- Continue to advise and assist science community and USCG to facilitate doing science on the icebreakers
- Continue to watch with interest the progress of SLEP, MOA, and the future of icebreakers