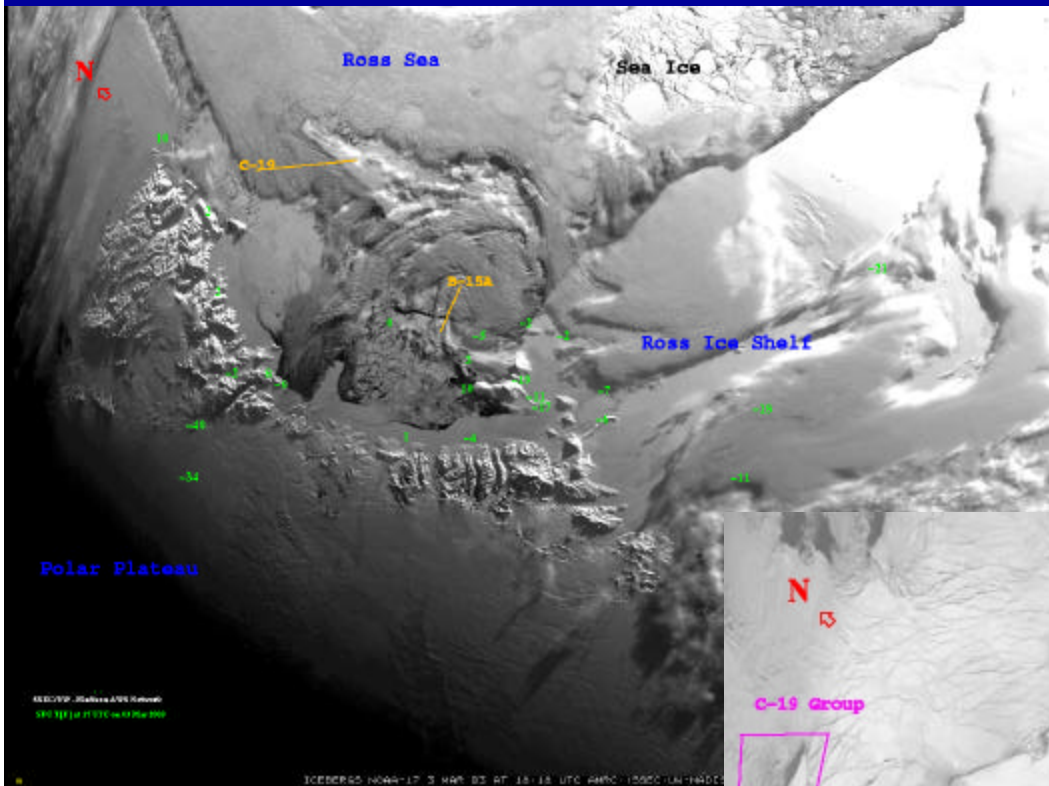
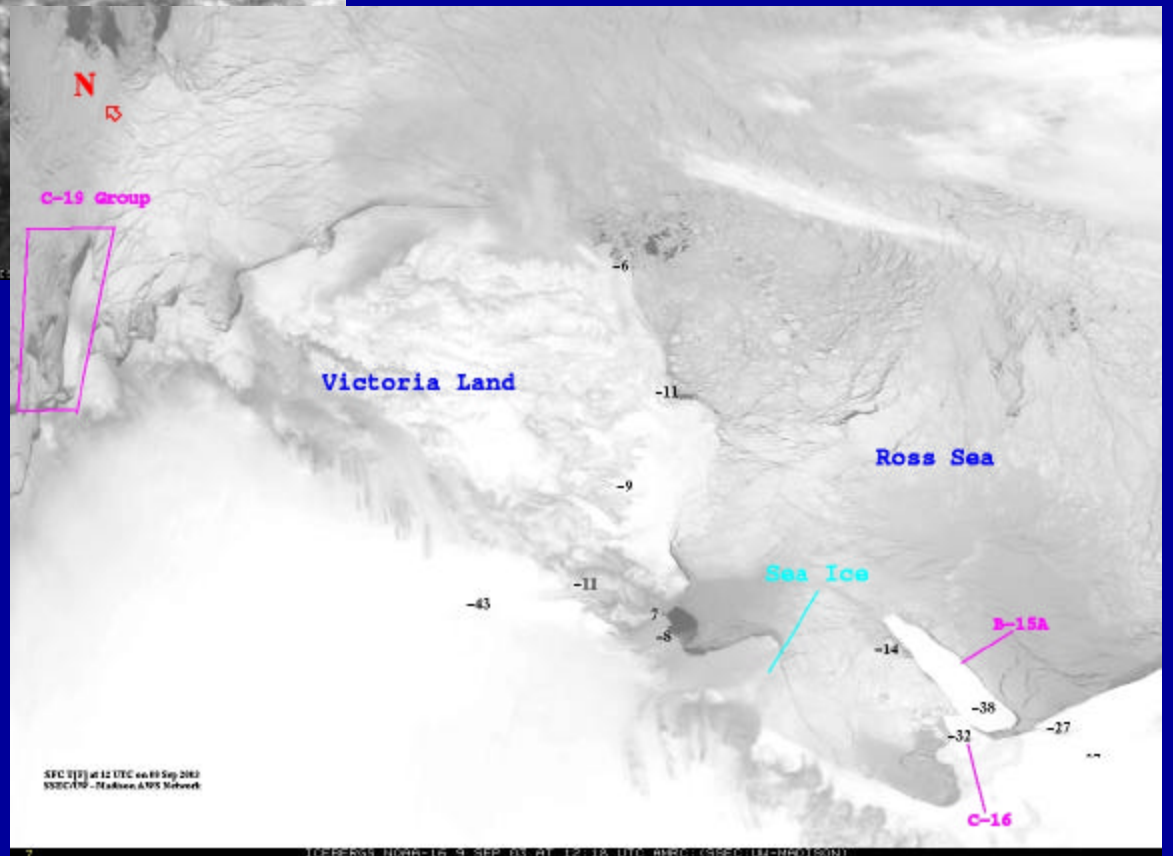


2002-2003
A BIPOLAR Year for the AICC
USCGC HEALY (“dedicated” ARCTIC research Icebreaker for US
scientific community)
Goes south
ARCTIC- light ice, ANTARCTIC- heavy ice





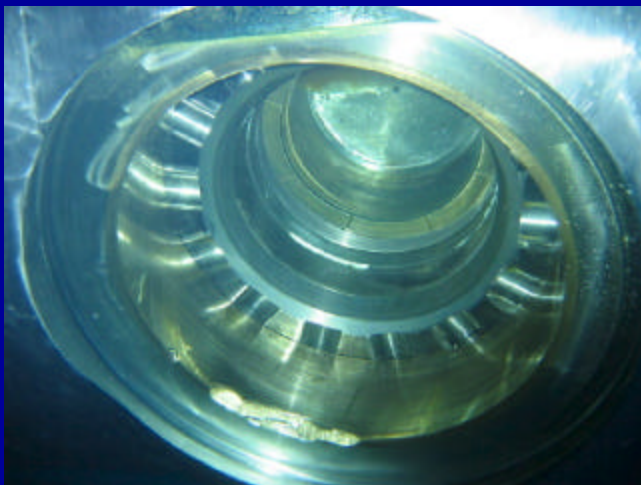
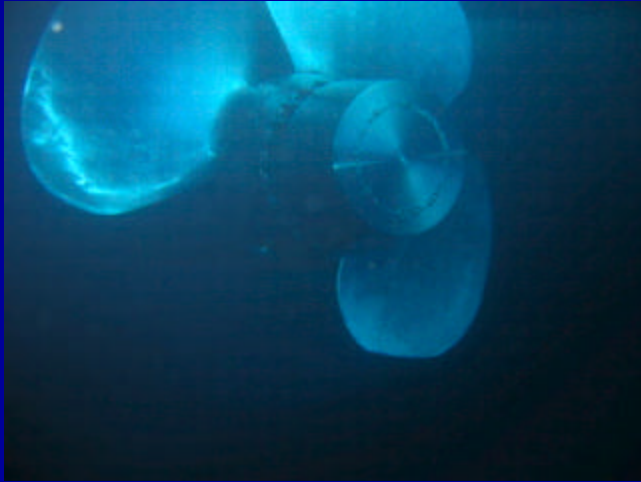
EXTREME 2002-2003
 Antarctic Ice conditions
 Required 2 USCG icebreakers
 HEALY and POLAR SEA



2003 Sept picture
 Better, but...
 POLAR SEA and
 POLAR STAR to go
 south

A hint of the bad news...

2002/2003 *Polar Sea* Propeller Casualties



- #1 Blade on Starboard Prop Broke Off While Breaking Heavy Ice
- Probable Cause is Thread Failure on the Blade Trunnion
- Reinforcing aging of the POLAR class icebreakers

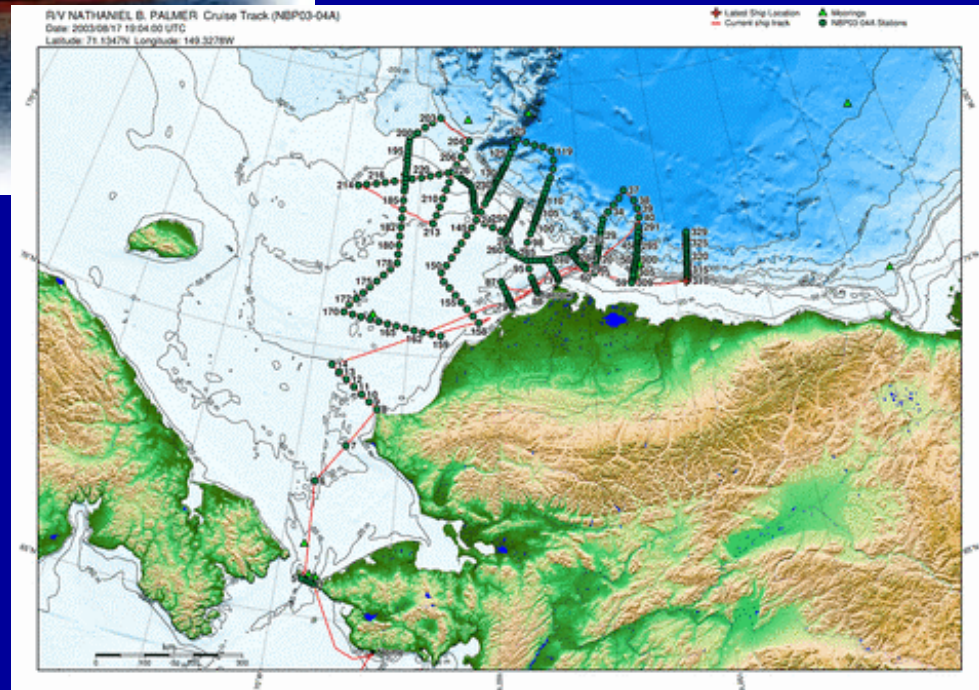
BUT The GOOD NEWS FIRST

HEALY Schedule

- HEALY arrived Seattle on time in April
- SeaBeam repairs, Cycloconverter repairs, SDN upgrade and groom all completed
- Departed ~13 June on schedule
- 3 Arctic missions summer 2003
 1. Nares Strait- completed
 2. Chukchi Cap mapping- completed
 3. SBI moorings-on-going



More good news-*Palmer* goes north



The Bad News-Perfect Storm Conditions for the POLAR class icebreakers

- Little or No Remaining Service Life
 - MAJOR Casualties Now the Norm On Both Ships, Every Mission
- Doubling of the OpTempo
 - Both Ships Now On Tap to Do the Hardest Mission Year In and Year Out
- Unfriendly Fiscal Environment Within the Coast Guard
 - Effectively Cancelled RIP, No SLEP Money ID'd

SLEP

Analysis of Alternatives

- Sticker Shock!
 - \$400M for Both Ships
 - Need to Lock in Money Very Soon (FY 07)
 - Competes Against Sea Change in CG
 - DHS Move
 - Deepwater (\$20B)/Rescue 21(\$800M)
- Mitigating Factors
 - Reduce Power (75K SHP down to 45K SHP)
 - SLEP Only One Ship
 - HEALY Into DF Mix on a Regular Basis

AICC and ARVOC response

- March meeting at NSF
- Joint letter to community
- May presentation to Polar Research Board
- June workshop for science upgrades to the POLARS
 - 76+ suggestions for improvements
 - Examples: Access to and from the ship to the ice
 - Common head on the main deck and elsewhere
 - Triple main deck lab space
 - Bow thruster for station keeping in ice or open water
 - Multibeam system (may require cutting hole in hull)
- CG presentations throughout chain of command
- CG representation at PALMER replacement workshop

Antarctic Impacts

“At the extreme, failure of the Antarctic logistical support mission could result in closure of two of the three US Antarctic science stations (McMurdo and South Pole stations).”

“At the very least, logistic support of the stations would have to change in drastic, and likely undesirable ways.”

AICC & ARVOC letter 6 April 2003

Arctic Impacts

“...the POLAR class icebreakers are essentially unavailable for support of Arctic science missions for the next few years.”

“In the future, Arctic science support may require the hiring of foreign vessels to fully support funded Arctic science.”

AICC & ARVOC letter 6 April 2003

Icebreaker Schedule 2004

- Nov 03 - Feb 04 DD Healy
- Nov 03 - Apr 04 DF04 Polar Star
- Dec 03 - Apr 04 DF04 Polar Sea
- May 04 - Sep 04 DS Polar Star
- May 04 - Sep 04 DD? Polar Sea
- May 04 - Oct 04 SBI Healy

DD= dry dock DF= Deep Freeze (Antarctica) DS= Dockside

Icebreaker Schedule 2007

- Nov 06 - Mar 07 DD Healy
- Nov 06 - Apr 07 DF07 Polar Sea
- Dec 06 - Apr 07 DF07 Polar Star
- May 07 - Sep 07 DD Polar Star
- Jun 07 - Aug 07 IPY Healy
 - Limit Healy IPY due to DF08 commitment
- Jul 07 - Sep 07 IPY Polar Sea
 - Polar Sea IPY participation dependent upon condition following DF 07

Icebreaker Schedule 2008

- Oct 07 – May 10 SLEP Polar Sea
- Nov 07 - Apr 08 DF08 Polar Star
- Dec 07 - Apr 08 DF08 Healy
- May 08 - Sep 08 DD Polar Star
- Jun 08 - Sep 08 DS Healy
- No Arctic work in 2008 - year after IPY

If REFIT...

Get science in the refit plans.

If Replacement?

- LOTS of money (\$400 million per ship?)
- “short way down a long road” Joe Bodenstedt
- Next AICC meeting in November
- Last of the original members are finishing up their terms
- Carin Ashjian, Bob Bourke, Lisa Clough, Hedy Edmonds, Margo Edwards, Larry Lawver, Peter Minnett, Terry Whitledge (Dale Chayes, Dan Schwartz, and Mike Prince)