



Coast Guard District 17



Arctic Brief



Cutter BEAR to the rescue circa late-1800's



The problem is...



Captain William Deal (Commanding Officer of Coast Guard station Kodiak) flying the HC-130 Hercules over the coast near Barrow on the last Arctic Domain Awareness flight of the year. Photo by Dennis Zaki

***There's water where there
used to be ice***



Mission Drivers

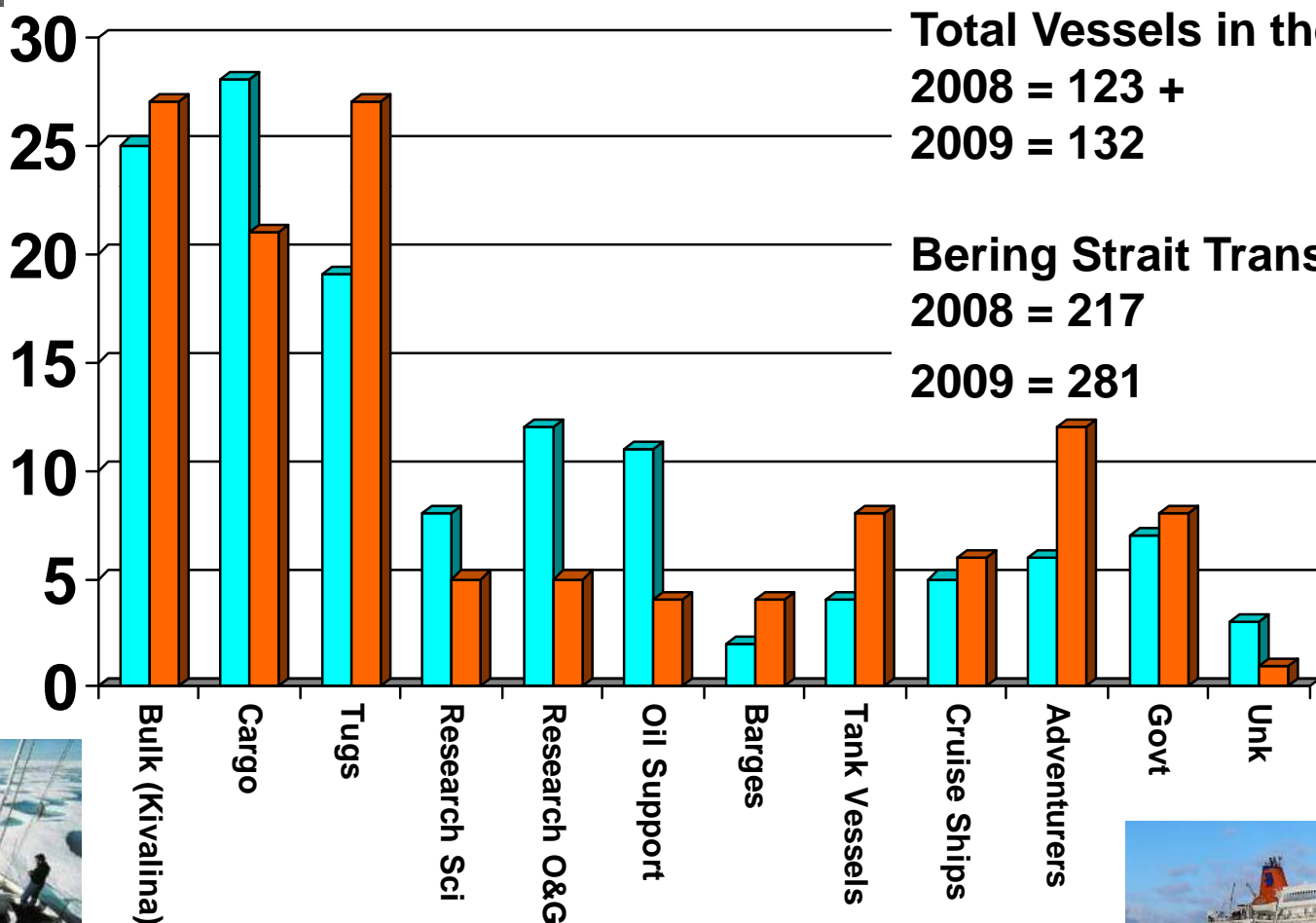
(Why it matters)



Increased Human Activity



2008 2009



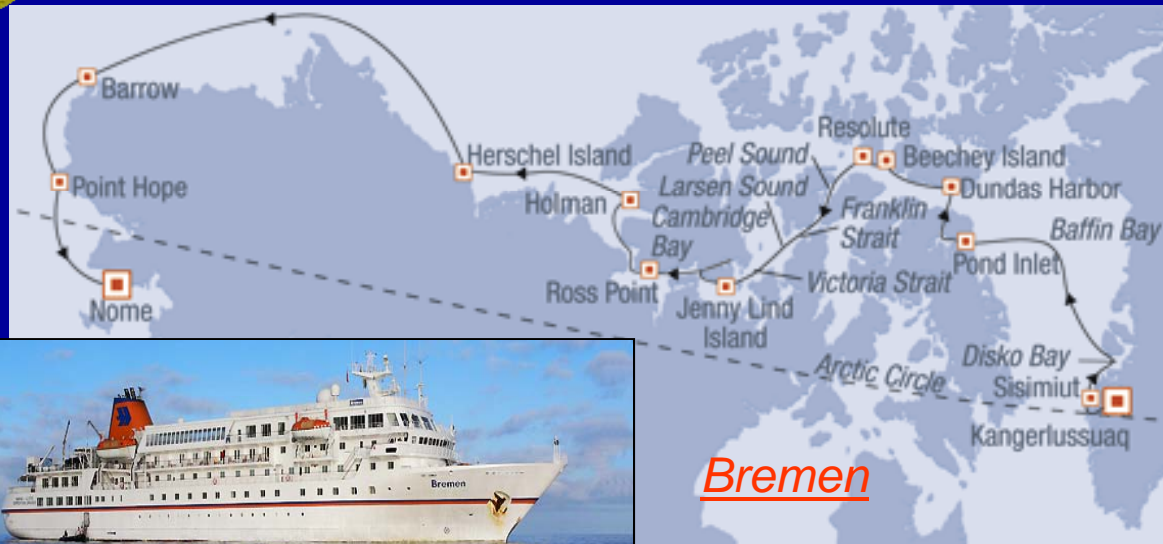
Total Vessels in the Arctic
2008 = 123 +
2009 = 132

Bering Strait Transits
2008 = 217
2009 = 281





Cruise Ships in the Alaskan Arctic



BREMEN
164 passengers
15 Aug to 08 Sep from
Kangerlussuaq to
Greenland to Nome
with stops in Barrow
and Point Hope



HANSEATIC
184 passengers
13 Aug – 05 Sep from
Nome to
Reykjavik/Iceland with
stops in Point Hope
and Point Barrow





Cruise Ship Sinks Off Antarctica

All 154 Aboard Saved



By Monte Reel
Washington Post Foreign Service
Saturday, November 24, 2007

BUENOS AIRES, Nov. 23 -- The first cruise ship ever built to ply the frigid waters off Antarctica became the first ever to sink there Friday. The red-hulled M/S Explorer struck ice, took on water as 154 passengers and crew members scrambled to safety aboard lifeboats and rafts, then went to the bottom.



Adventurers NW Passage Transits



- **2009 Activity (12)**
 - M/V Polar Bound W-E (complete)
 - S/V Glory of the Sea E-W (?)
 - S/V Prithia W-E (complete)
 - S/V Precipice E-W (complete)
 - S/V Ocean Watch W-E (complete)
 - S/V Silent Sound W-E (complete)
 - S/V Baloum Gwen W-E (complete)
 - S/V Fiona E-W (complete)
 - M/V Bagan E-W (complete)
 - S/V Fleur Australe E-W (complete)
 - M/V Apoise E-W (complete)
 - S/V (Capt Lem) Captain Lemuel R Brigman III E-W (stopped for the year in Labrador)



Capt Lem



Ocean Watch

7

Nordhavn 57 shoves off for the Northwest Passage
Bound for Arctic, Bagan closes in on first waypoint: Halifax, NS





2010 Northwest Passage Adventurers (17)



Vessel Name	Type	POB
ARCTIC MARINER	Sail/Row Boat	2
DIONE SKY	Private Yacht	Unknown
CAPTAIN LEMUEL R BRIGMAN III	Sailing Vessel	1
FCP NORTHWEST PASSAGE	Rigid Hull Inflatable Boat	5
ISSUMA	Sailing Vessel	Unknown
MATHIEU BONNIER ET TICO	Row Boat	1 (+ dog)
NORTHERN PASSAGE	Sailing Vessel	Unknown
OCTOPUS	Private Yacht	Unknown
PETER 1	Sailing Vessel	Unknown
RXII	Sailing Vessel	Unknown
SAREMA	Sailing Vessel	Unknown
SOLANUS	Sailing Vessel	5
YOUNG LARRY	Sailing Vessel	4
ANNA (Sweden)	Unknown	Unknown
ARIEL 4 (Sweden)	Unknown	Unknown
ALASKA (Norway)	Unknown	1
TELEPORT (Australia)	Unknown	2



Increasing Cargo Ops in the Arctic & Western Alaska



- Lifeblood of arctic villages
- Piers few and far between
- Normal ops to run barges aground to offload
- Single-hulled barges



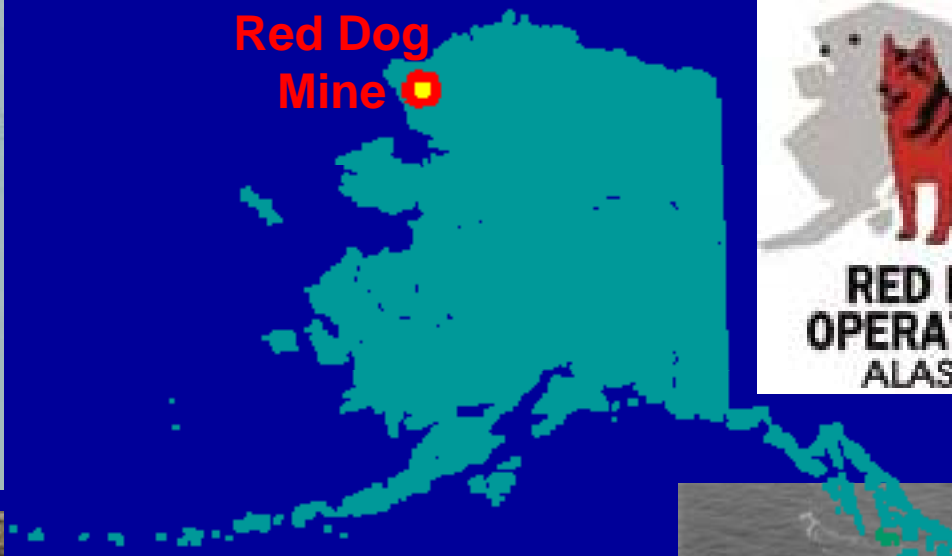


Mining in the Arctic



Red Dog Port - 15 March 08

Red Dog Mine



10 ore carrier receiving a tender boat offshore

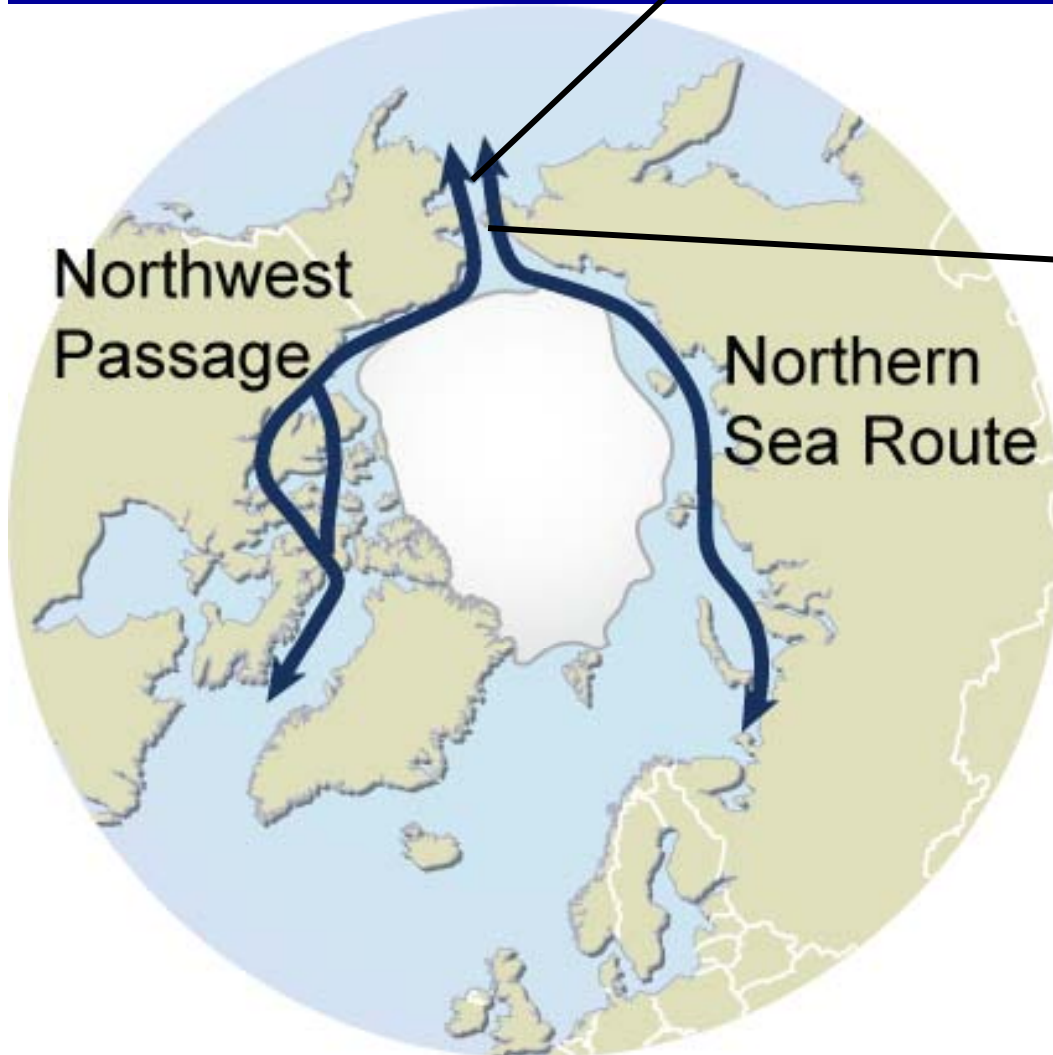


Potential Future Arctic Shipping Routes





Bering Strait



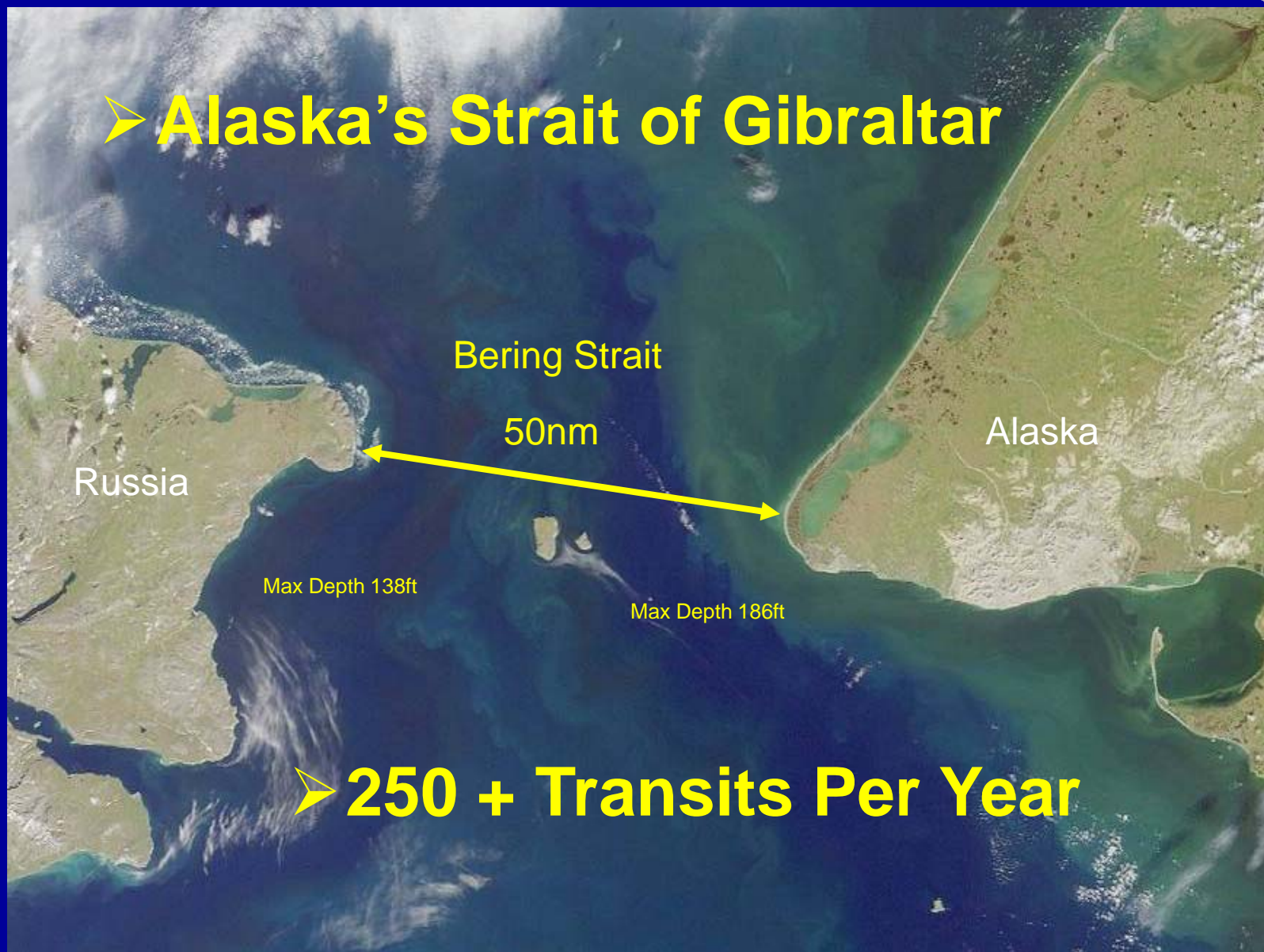
**Only way in or out
of the Arctic...**

**For over half
the world**



Maritime Traffic Management

➤ Alaska's Strait of Gibraltar



➤ 250 + Transits Per Year



Really Big Mission Drivers

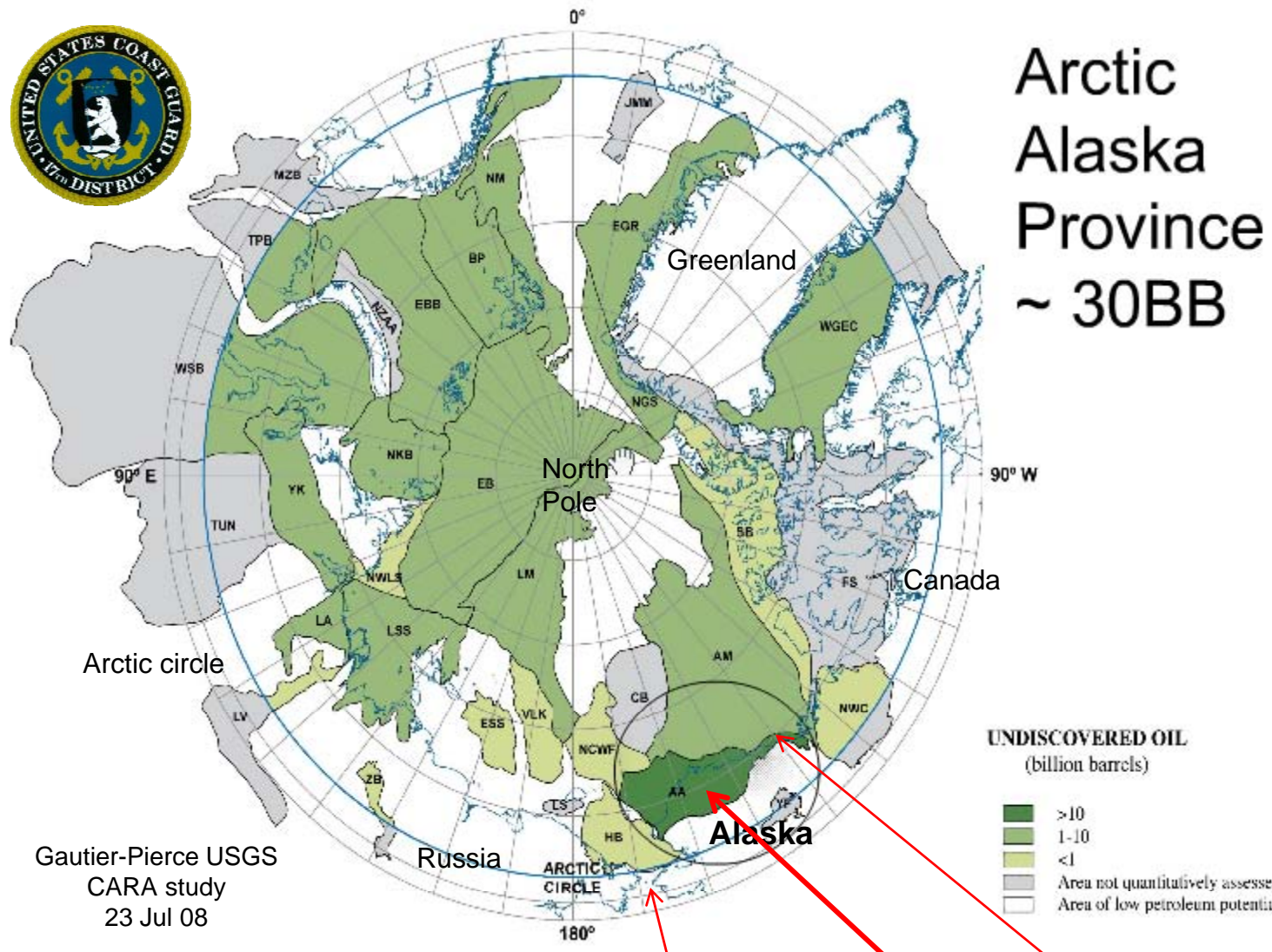
(Why It Really Matters)



Arctic Alaska Province ~ 30BB

Alaska's
North
Coast:

Potential
to be the
richest
oil field in
the Arctic



Oil

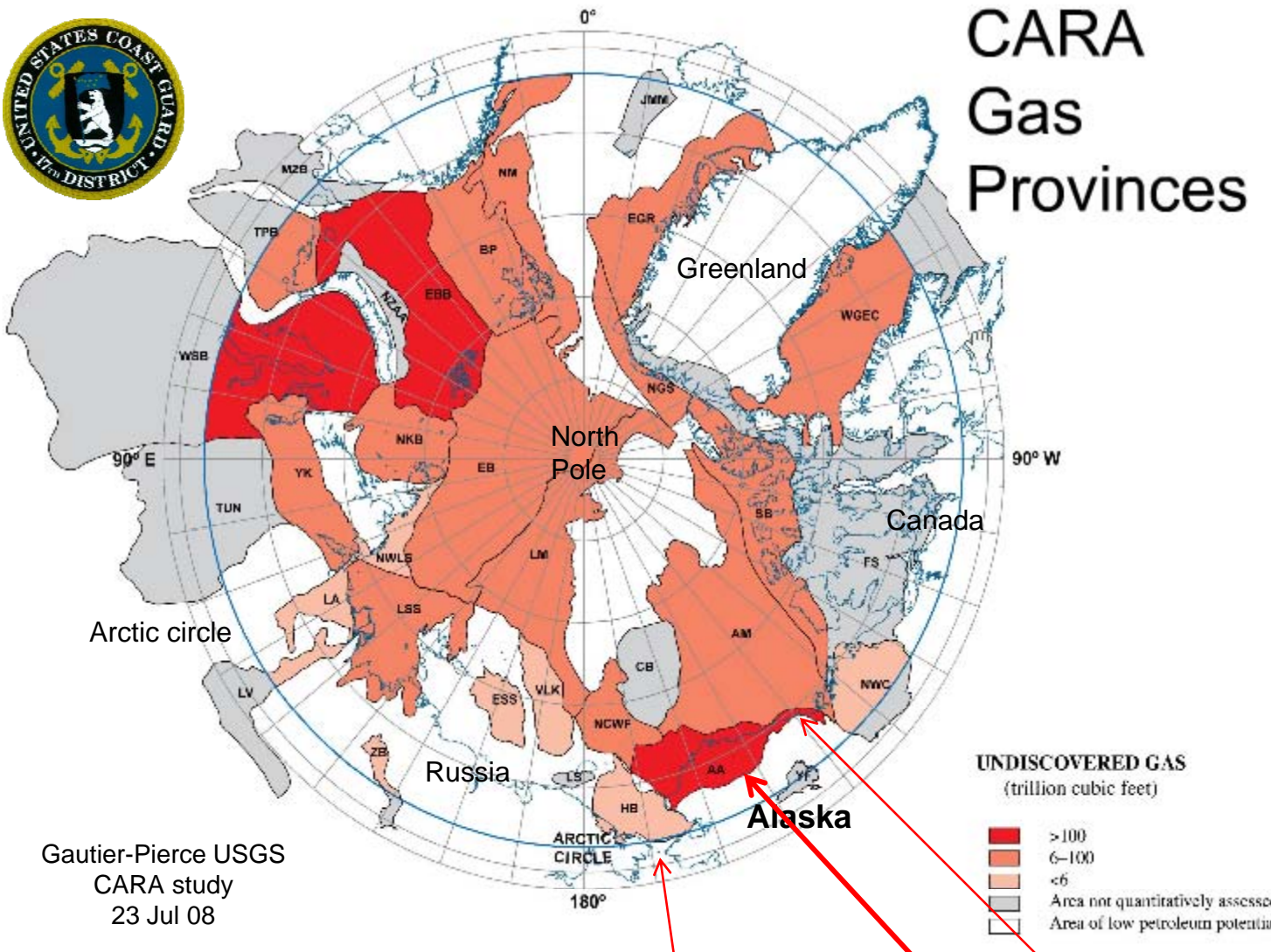
West boundary
of Alaska
(Bering Strait)

East boundary of Alaska
(Canadian Border)

Undiscovered oil in arctic



CARA Gas Provinces



Alaska's North Coast:

Potential to be the richest natural gas field in the Arctic ... Only Russia has similar potential for natural gas

Gautier-Pierce USGS
CARA study
23 Jul 08

Gas

West boundary of Alaska

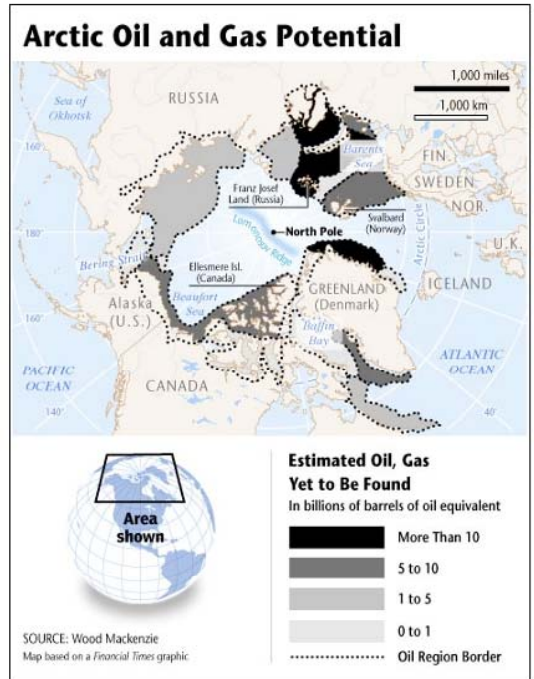
East boundary of Alaska

Undiscovered natural gas in arctic ¹⁶



Expanding Resource Development

- Hydrocarbons (Oil & Gas) & minerals (Manganese, Copper, Nickel, Cobalt)
- Oil companies bid nearly \$2.7 billion for Chukchi Sea rights.





Our Arctic Neighbors

Russia Is Serious About The Arctic

Canada Increasingly So



Russia's Historic Quest For Access To The Sea



Russian History Encyclopedia: Trade Routes

[Top](#)

[Home](#) > [Library](#) > [History, Politics & Society](#) > [Russian History Encyclopedia](#)

Three-fourths of Russia is more than 250 miles (400 [kilometers](#)) away from seas and oceans; Russia is the world's most continental country. Even though Russia's coastline is the second longest (after Canada), the presence of sea ice hampers traffic in and out of the country's few ports during much of the winter. [Murmansk](#), for example, Russia's only warm-water port, is plagued by shorefast ice for two months out of the year. These and other factors hampered the development of a Russian navy until the eighteenth century, when Peter the Great built St. Petersburg, his famed "Window on the West." Accordingly, Russian historic trade routes have been negotiated largely within its vast interior.



Russian Claims in the Arctic

▶ Watch One-Minute World News

Last Updated: Thursday, 2 August 2007, 17:22 GMT 18:22 UK

✉ E-mail this to a friend

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Russia plants flag under N Pole

Russian explorers have planted their country's flag on the seabed 4,200m (14,000ft) below the North Pole to further Moscow's claims to the Arctic.



The Mir-I is one of two Russian craft that dived to the Arctic floor

The rust-proof titanium metal flag was brought by explorers travelling in two mini-submarines, in what is believed to be the first expedition of its kind.

RUSSIA'S ARCTIC CLAIM



- 1) North Pole:** Russia leaves its flag on the seabed, 4,000m (13,100ft) beneath the surface, as part of its claims for oil and gas reserves
- 2) Lomonosov Ridge:** Russia argues that this underwater feature is an extension of its continental territory and is looking for evidence
- 3) 200-nautical mile (370km) line:** Shows how far countries' agreed economic area extends beyond their coastline. Often set from outlying islands
- 4) Russian-claimed territory:** The bid to claim a vast area is being closely watched by other countries. Some could follow suit



Russia's Arctic Claim

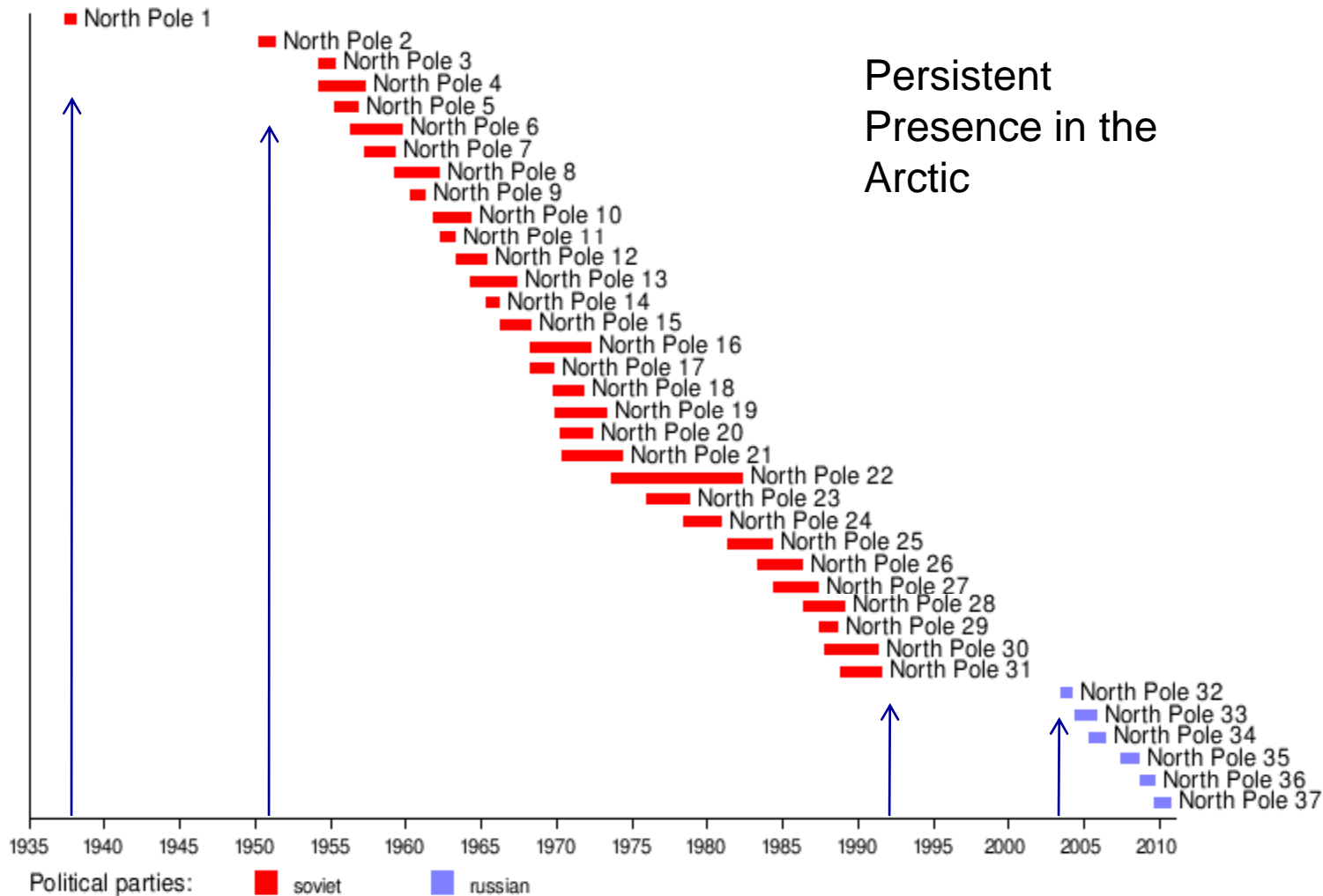


From Dr. Zilanov's Arctic Fisheries presentation, Anchorage, Alaska, November, 2009



Soviet and Russian manned drifting ice stations

Past stations

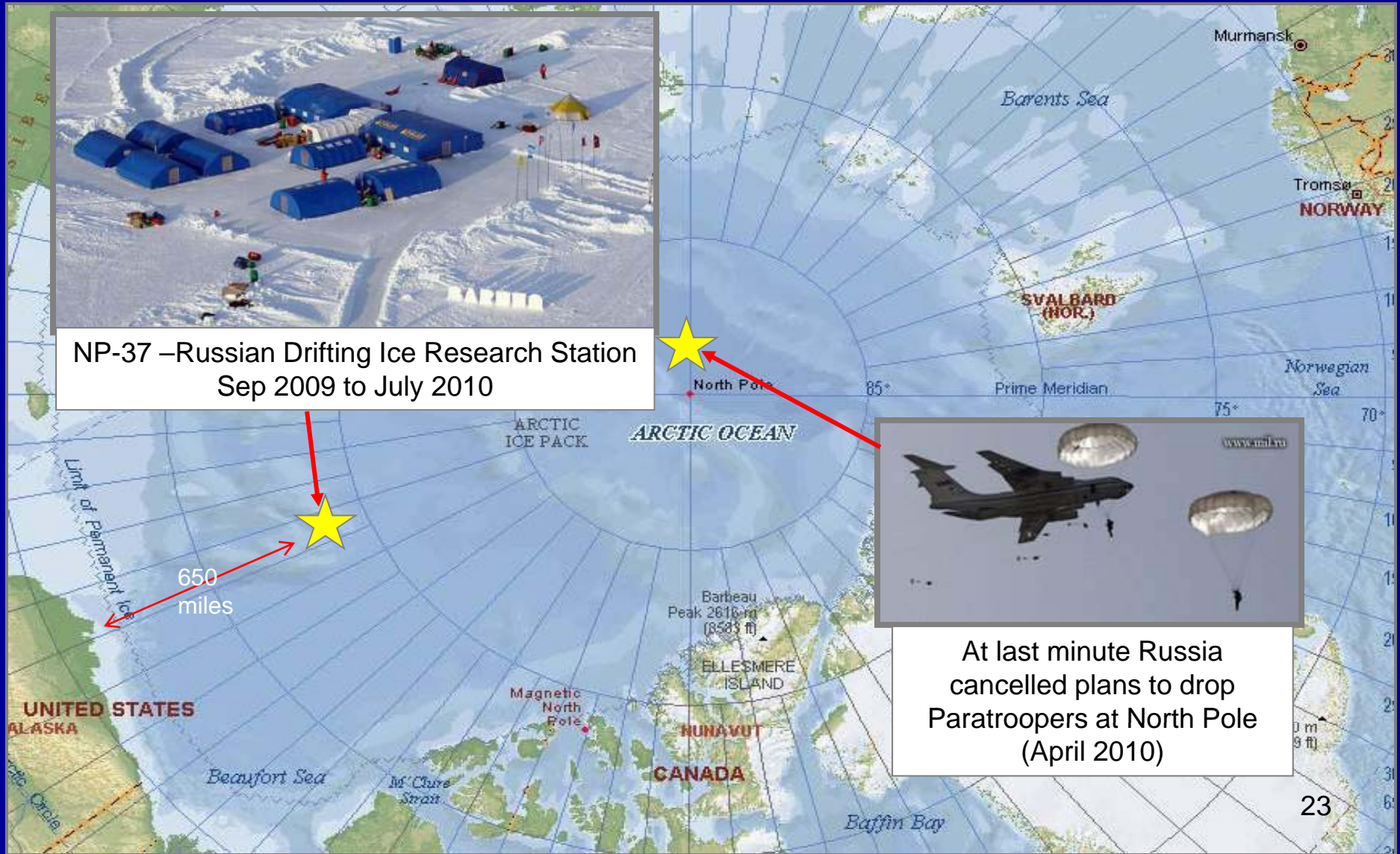




Russian Activity In The Arctic



NP-37 –Russian Drifting Ice Research Station
Sep 2009 to July 2010



At last minute Russia cancelled plans to drop Paratroopers at North Pole (April 2010)



Transit of Northern Route (above Russia)



Aframax ice-reinforced oil tanker carrying 70,000 metric tons of gas condensate enroute Asia via the Bering Strait



Escorted by two Russian nuclear ice-breakers



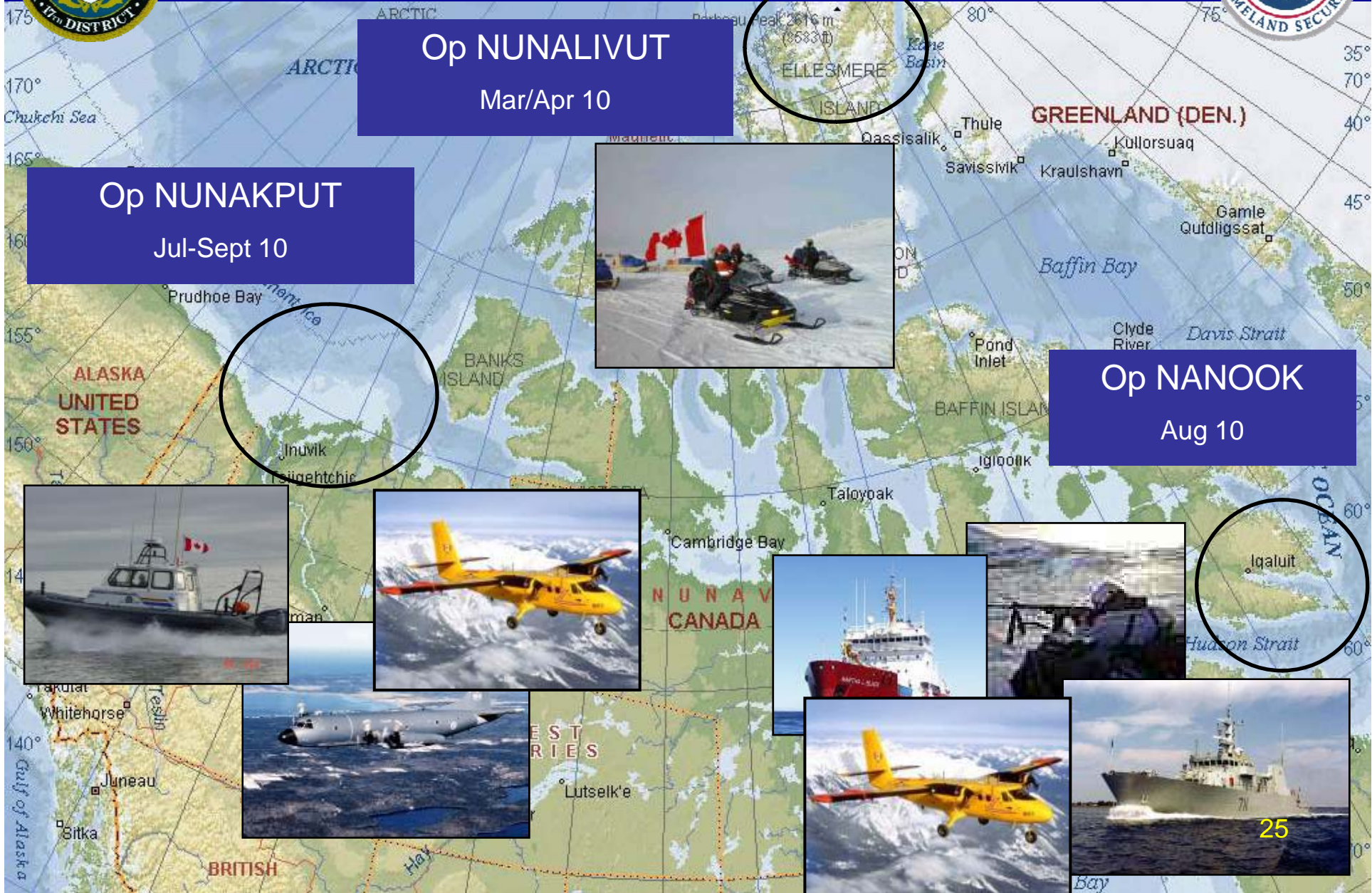
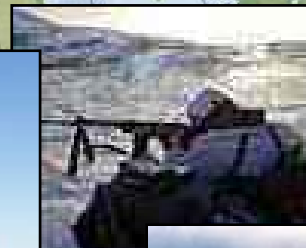


Canadian Friends Are Busy In The Arctic, Too

Op NUNALIVUT
Mar/Apr 10

Op NUNAKPUT
Jul-Sept 10

Op NANOOK
Aug 10





Canada Building Arctic Patrol Ships



Ottawa buying up to 8 Arctic patrol ships

Last Updated: Monday, July 9, 2007 | 2:52 PM ET
CBC News

The federal government will fund the construction of six to eight new Arctic patrol ships to help reassert Canada's sovereignty over the North, Prime Minister Stephen Harper said Monday.

The Polar Class 5 Arctic Offshore Patrol Ships will be custom-built, state of the art and made in Canada, Harper said during a ceremony at Canadian Forces Base Esquimalt on Vancouver Island.



Maj. Chris Bergeron, right, scouts a route through rough ice on Eureka Sound, the inter-island channel separating Ellesmere and Axel Heiberg islands, earlier this year. (Dianne Whelan/Canadian Press)

The ships will cost about \$3.1 billion, with about \$4.3 billion for operations and maintenance over their 25-year lifespan.

"Canada has a choice when it comes to defending our sovereignty over the Arctic," Harper said.

"Either we use it or we lose it. And make no mistake — this government intends to use it."

He said the ships' hulls will be reinforced with steel and be able to crunch through ice up to a metre thick, allowing the ships to patrol the length of the Northwest Passage during months when a Canadian naval presence is necessary.

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Arm Arctic patrols, government urged

Weaponry would assert sovereignty: Senate committee

BY RANDY BOSWELL, CANWEST NEWS SERVICE DECEMBER 15, 2009

A Senate committee probing the role of the Canadian Coast Guard in asserting Arctic sovereignty is urging the government to arm patrol ships with "deck weaponry capable of giving firm notice" to foreign vessels that this country controls the Northwest Passage.

In a report issued Monday, the Senate fisheries committee also recommended new rules that would require all ships -- regardless of size or country of origin -- to register their presence in northern Canadian waters, strengthening the partly voluntary NORDREG system now in place.

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U.S. Arctic Policy



US Arctic Policy Goals

- Meet National & homeland security needs
- Protect the Arctic environment & conserve it's biological resources
- Ensure that natural resource mgmt & economic development in the region is environmentally sustainable
- Strengthen cooperation among Arctic nations
- Involve indigenous communities in decisions that affect them
- Enhance scientific monitoring & research

THE WHITE HOUSE
Office of the Press Secretary

For Immediate Release January 12, 2009

January 9, 2009

NATIONAL SECURITY PRESIDENTIAL DIRECTIVE/NSPD -- 66
HOMELAND SECURITY PRESIDENTIAL DIRECTIVE/HSPD -- 25

MEMORANDUM FOR THE VICE PRESIDENT
THE SECRETARY OF STATE
THE SECRETARY OF THE TREASURY
THE SECRETARY OF DEFENSE
THE ATTORNEY GENERAL
THE SECRETARY OF THE INTERIOR
THE SECRETARY OF COMMERCE
THE SECRETARY OF HEALTH AND HUMAN SERVICES
THE SECRETARY OF TRANSPORTATION
THE SECRETARY OF ENERGY
THE SECRETARY OF HOMELAND SECURITY
ASSISTANT TO THE PRESIDENT AND
CHIEF OF STAFF
ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION
AGENCY
DIRECTOR OF THE OFFICE OF MANAGEMENT AND BUDGET
DIRECTOR OF NATIONAL INTELLIGENCE
ASSISTANT TO THE PRESIDENT FOR NATIONAL SECURITY
AFFAIRS
COUNSEL TO THE PRESIDENT
ASSISTANT TO THE PRESIDENT AND DEPUTY NATIONAL
SECURITY ADVISOR FOR INTERNATIONAL ECONOMIC
AFFAIRS
ASSISTANT TO THE PRESIDENT FOR HOMELAND SECURITY
AND COUNTERTERRORISM
CHAIRMAN, COUNCIL ON ENVIRONMENTAL QUALITY
DIRECTOR OF THE OFFICE OF SCIENCE AND TECHNOLOGY
POLICY
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
COMMANDANT, U.S. COAST GUARD
DIRECTOR, NATIONAL SCIENCE FOUNDATION

SUBJECT: Arctic Region Policy

I. PURPOSE

A. This directive establishes the policy of the United States with respect to the Arctic region and directs related implementation actions. This directive supersedes Presidential Decision Directive/NSC-26 (PDD-26; issued 1994) with respect to Arctic policy but not Antarctic policy; PDD-26 remains in effect for Antarctic policy only.

B. This directive shall be implemented in a manner consistent with the Constitution and laws of the United States, with the obligations of the United States under the treaties and other international agreements to which the United States is a party, and with customary international law as recognized by the United States, including with respect to the law of the sea.



US Arctic Policy Goals



It is the policy of the United States to:

1. Meet national security and homeland security needs relevant to the Arctic region;
2. Protect the Arctic environment and conserve its biological resources;
3. Ensure that natural resource management and economic development in the region are environmentally sustainable;
4. Strengthen institutions for cooperation among the eight Arctic nations (the United States, Canada, Denmark, Finland, Iceland, Norway, the Russian Federation, and Sweden);
5. Involve the Arctic's indigenous communities in decisions that affect them; and
6. Enhance scientific monitoring and research into local, regional, and global environmental issues.



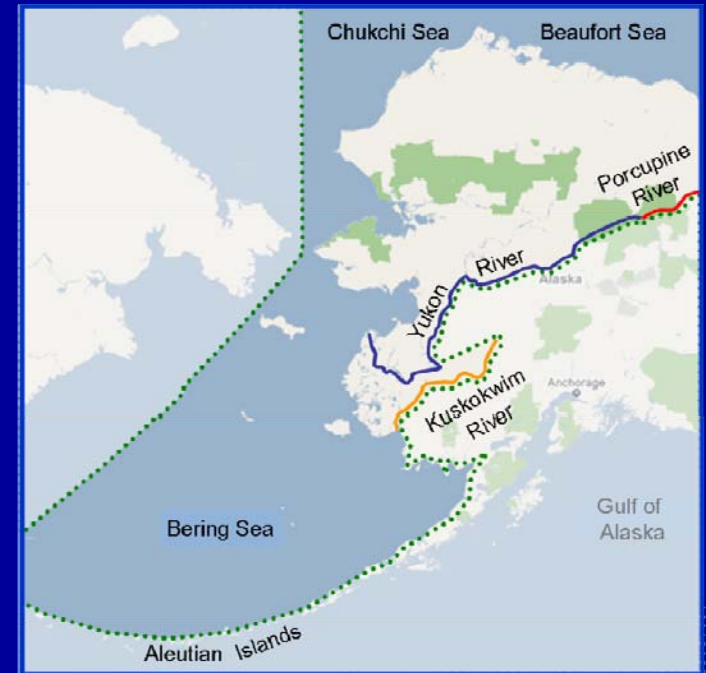
Preserve Future Options



- The arctic is all about the future. What future options will we preserve for our children?
- What type of governance will we ultimately see in the arctic?
- Actions taken or not taken today will positively or negatively impact future options.
- The Head Oceanographer of the Navy said “There are sailors in the Navy today that may see an ice-free arctic by the end of their careers.”
- To maximize options for future generations *U.S. persistent, sovereign presence* is needed in the arctic today.



Arctic Lexicon





U.S. Coast Guard Activities In The Arctic



North Pole C-130 Flight Oct 2007

**Arctic Domain Awareness (ADA) flights
started in 2007**

Twice monthly flights Mar-Dec



Arctic Ops Summer '08



- Arctic Domain Awareness
- Cutter Operations
 - HEALY, POLAR SEA, SPAR, HICKORY
- Tailored Force Package Deployments to Prudhoe Bay and Barrow
- Community Engagement
- SAR Exercise





2008-2010 Surveys: Joint Canadian/US



US Coast Guard Cutter HEALY:
breaking ice

**Canadian Coast Guard Cutter
LOUIS S. ST. LAURENT:**
following with scientific equipment





USCG Prudhoe Bay

July 19-25 2009

- (DOG) forces deployed to Prudhoe Bay for 5 days, for inshore maritime security
- 2 small boats (RB-HS & SPC-SW), support equipment
- Sling launch boat
- 20 Personnel



UNCLASSIFIED



CGC ALEX HALEY

Arctic Patrol Sep – Oct 2009

Vertical Replenishment
via embarked HH-65
helo



ALEX HALEY underway with sea ice

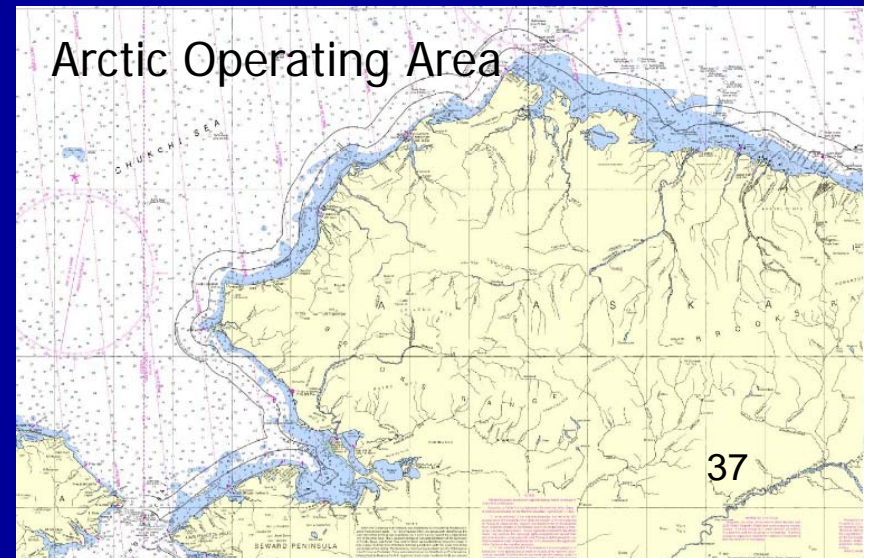


ALEX HALEY MOORED IN NOME, AK

• Patrol Goals and Accomplishments

- Arctic Domain Awareness
 - Patrolled Arctic for 21 days.
- Community Outreach
 - Met with Mayor of Kotzebue.
 - Embarked helicopter served as static display for Kotzebue schoolchildren.
- Exercise VERTREP capability
 - Conducted VERTREP via embarked HH-65 off Kotzebue.

Arctic Operating Area



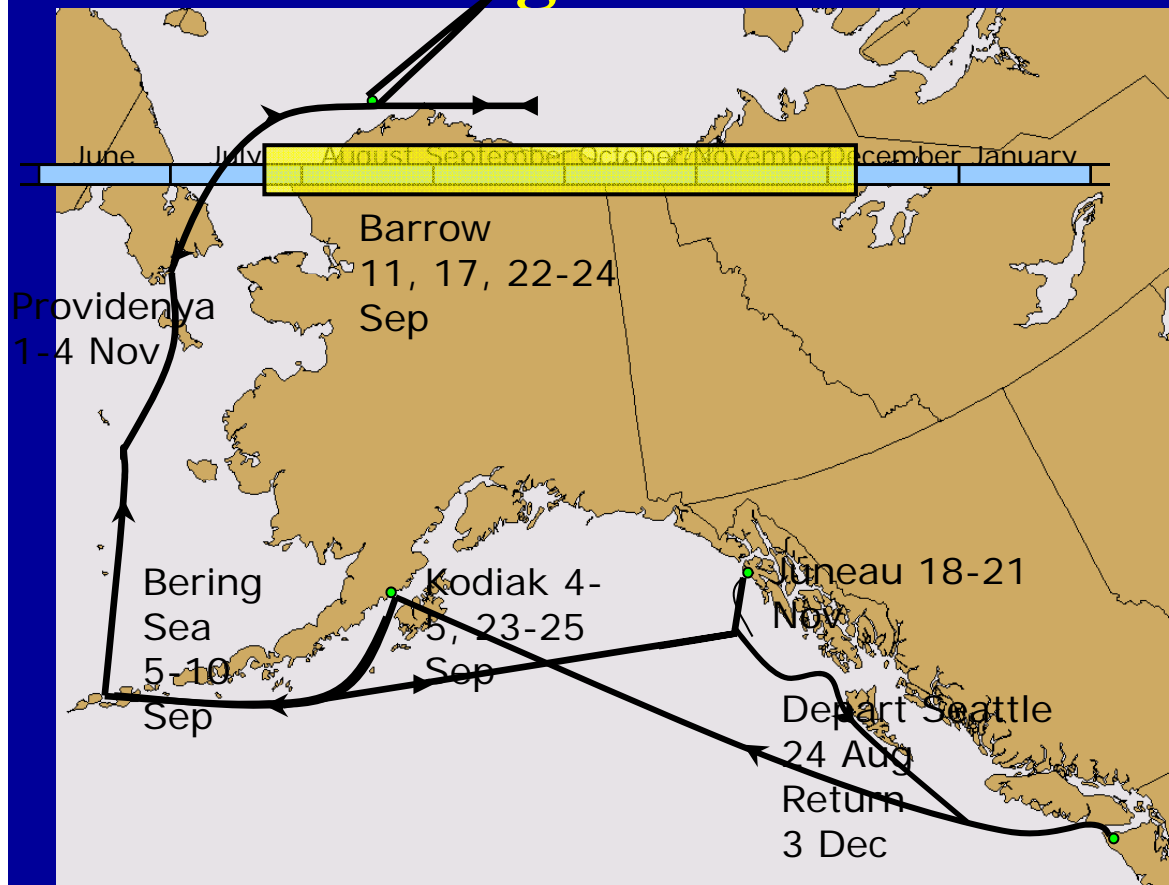


USCGC POLAR SEA



- Science ops for the National Science Foundation

24 Aug – 3 Dec





Small Boat Ops off Point Barrow 25-30 Aug 2009



- One 25' RB-HS small boat
- One 23' Sea Ark
- One 18' Sea Wolf Boat
- Boating Safety Training Team
- Community/Tribal Liaison
- Delivered via C-130





Nome Operations



August 10-24, 2009

- Community/Tribal Liaison 11+ Villages
- Building a traditional boat
- Medical/Dental/Veterinary/Optomety outreach Team
- Community Project – Beach Cleanup
- 83 Coast Guard personnel



Photos and layout by Petty Officer Jon-Paul Rios



USCGC SPAR



- Deploy NOAA Buoy
- Spilled Oil Recovery System (SORS)
Exercise in Nome 25 August
- Doctors to Little Diomedede





Alaskan Native Outreach 2009

23-25 Sep 09



Tours of C-130, H-65 and Cutter ALEX HALEY

Water Safety Training at schools



Showing communities and Students what we do... Navigation, Law Enforcement, Emergency Medical Response





ARCTIC CROSSROADS 2010



➤ Operations Just Completed:

- Arctic Domain Awareness (ADA) Flights
- CANUSNORTH Tabletop Exercise
- Icebreaker Science Mission/Icebreaker
- Mobile Forward Operating Location
- Water Safety & Young Alaskan Engagement
- Continued Native Alaskan Engagement





Lessons Learned



Arctic: Lessons Learned



- **Infrastructure Insufficient**
- **Lack of effective communication**
- **Small boats/short range helos ineffective**
- **Require icebreakers or ice hardened vessels with embarked helos**
- **Input from indigenous people imperative**
- **Expensive!**





U.S. ICEBREAKERS



- Operating Budget in 2010 remains with National Science Foundation
- POLAR STAR reactivation 2013
- Long term icebreaker plans uncertain





Challenges Enforcing Laws In Arctic



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Commercial fishing banned in Arctic waters as of Dec. 3

TIME OUT: NOAA says science can catch up to changing conditions.

By MARY PEMBERTON
The Associated Press

Published: November 3rd, 2009 08:18 PM
Last Modified: November 3rd, 2009 08:19 PM

A plan that puts a large area of the Arctic Ocean off-limits to commercial fishing goes into effect Dec. 3, federal officials said Tuesday.

More Climate change stories >>

- Research seeks links between warming, fishing patterns
- Ice sculpture parodies Gore on warming
- Scientists find Western lakes warming faster than land
- Arctic research bill gains ground
- Murkowski tries again to limit EPA rules on greenhouse gas

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The plan was approved by Secretary of Commerce Gary Locke in August.

The National Oceanic and Atmospheric Administration said Tuesday that the plan establishes an orderly process to consider requests to develop fisheries in the Arctic, and it provides time for science to catch up to changing Arctic conditions, specifically global warming and the loss of sea ice.

"We need a rush of scientists into the Arctic, not an armada of cargo



Limited Coast Guard Oil Spill Response

USCG Oil Spill Response Equipment



Long Distance Search And Rescue

Kodiak to Point Barrow is 940 miles across three mountain ranges



About the same distance as LA to Seattle



Projected 2010 Arctic Activity

➤ No significant change in cargo traffic is expected in 2010

- ❑ German vessels transited unassisted through the Northern Sea Route
- ❑ Russia plans to send oil tankers through the Northern Sea Route to the Pacific in 2010

➤ Oil and Gas activity to increase

- ❑ In 2009 Shell scuttled plans to drill two wells due to the 9th Circuit court decision, however research was conducted
- ❑ In 2010 Shell and is planning three exploratory wells

➤ Cruise Ship Activity

- ❑ 7 cruise ships to operated in the Arctic in 2009
- ❑ No significant change expected in 2010

➤ Oceanographic research

- ❑ 5 vessels in 2009
- ❑ Slight increase is expected in 2010





Persistent, Sovereign, Presence Preserves Future Options



- The arctic is perhaps the most exciting and significant geo-political issue of our generation.
- There are various potential geo-political futures for an evolving arctic...
- but as of today we don't know what the arctic will look like by mid-century.

**Today is our opportunity
to shape the future!**

TESTIMONY OF
REAR ADMIRAL CHRISTOPHER COLVIN
COMMANDER, COAST GUARD DISTRICT SEVENTEEN
"CHANGING ARCTIC AND THE NEED FOR FEDERAL INFRASTRUCTURE"
BEFORE THE SENATE COMMITTEE ON COMMERCE,
SCIENCE AND TRANSPORTATION
AUGUST 19, 2010



The Arctic Is Really Cool...

Questions?