

Maritime Claims, Shipping and Governance in the Arctic: Emerging Challenges in a Warming North



AUSTRALIAN NATIONAL CENTRE FOR
OCEAN RESOURCES & SECURITY

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Arctic Antics



On 2 August 2007 a Russian expedition used a mini-submersible to plant the Russian flag at 4,200m depth beneath the North Pole.

Reactions

“This isn’t the 15th century. You can’t go around the world and just plant flags and say ‘We’re claiming this territory’”

(Peter MacKay, Canadian Foreign Minister)

Russian Responses:

“No one is throwing flags around”

Russia acting “in strict compliance with international law”

(Sergei Lavarov, Russian Foreign Minister)

Reactions

Russian Responses:

Russian flag-planting likened to Hillary and Tenzing planting the Union Jack on the summit of Mount Everest

“A unilateral annexation of the area by Russia is impossible. We will strictly abide by the UN Convention.”

(Victor Posyolov, Russian Institute of Ocean Geology)

Arctic Antics

These developments provoked talk of...

A “scramble for the Arctic”

(Daily Telegraph, 14 August 2007)

“Race for the Arctic”

(Canberra Times, 10 September 2007)

Arctic resource “gold rush”

(BBC News, 25 October 2007)

An Arctic “land grab”

(Washington Times, 12 November 2007)



Geopolitical Dimensions

- Russia's Arctic antics generated considerable media interest
 - Played especially well domestically
 - Part of a more assertive Russian foreign policy
- Arctic issues also important in domestic politics in the other coastal states
 - Canada and Denmark also conducting expeditions to gather data to back up their claims to the CLCS
 - Canada developing bases in the Arctic
 - Extra 900 troops to reinforce Arctic Rangers
 - New cold-weather fighting training base at Resolute Bay
 - New deep-water port on Baffin Island
 - “use it or lose it” according to Canadian Prime Minister Stephen Harper



The Arctic

- Semi-enclosed Sea
- Five littoral States
 - Canada
 - Denmark (Greenland)
 - Norway (Svalbard)
 - Russia
 - USA
- Key feature a predominantly ice-covered ocean, year-round
- ...until recently.

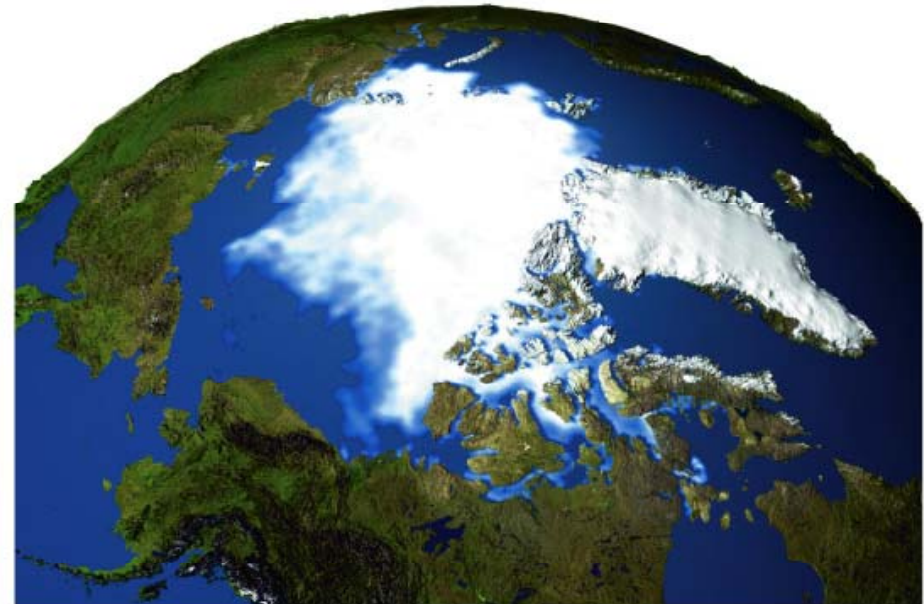


Unfreezing Seas?

Observed sea ice September 1979

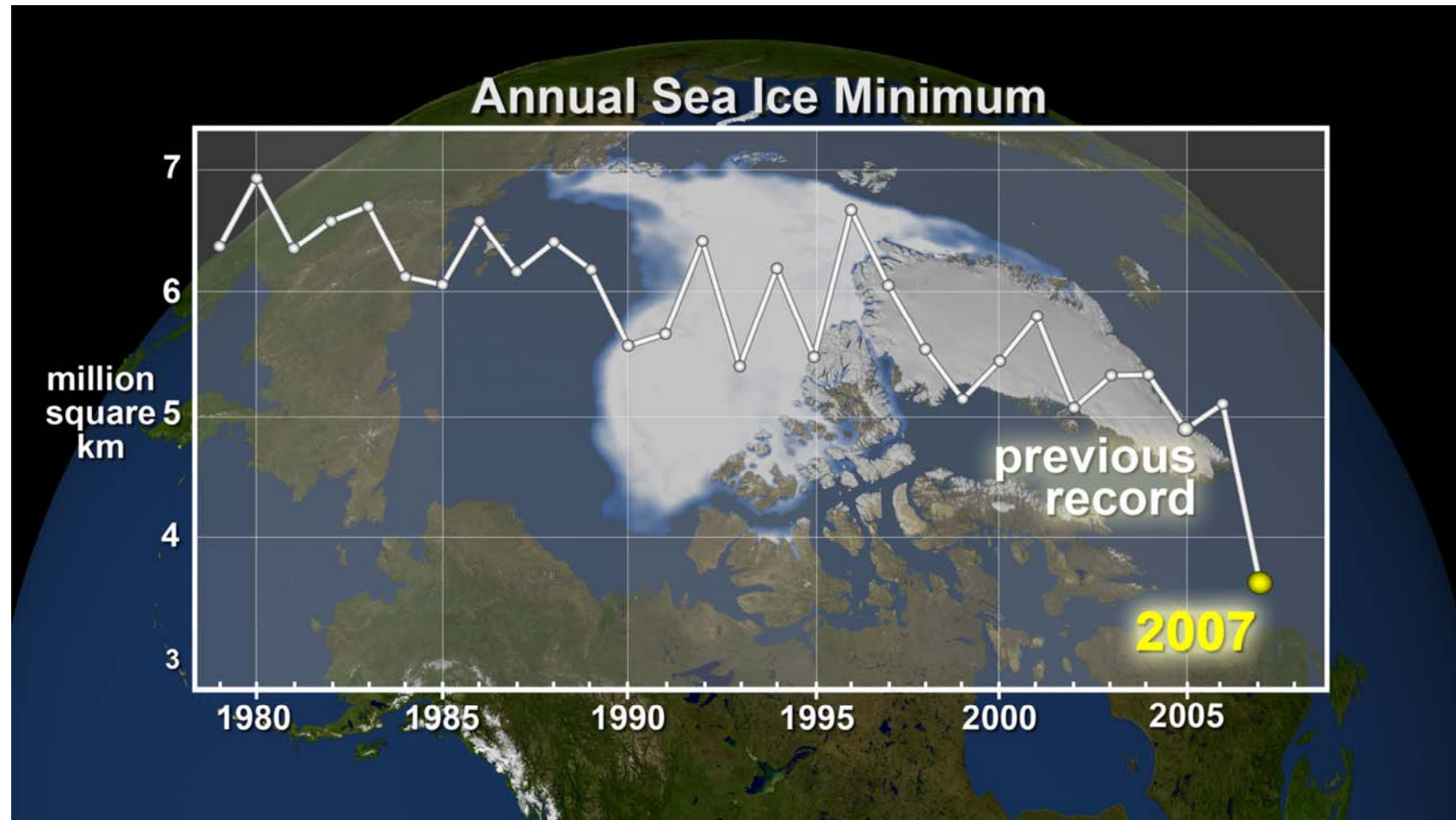


Observed sea ice September 2003



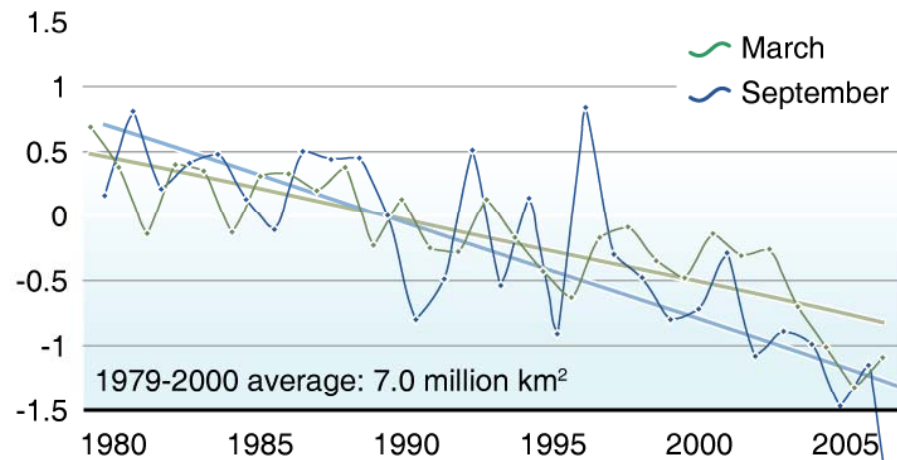
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Unfreezing Seas?



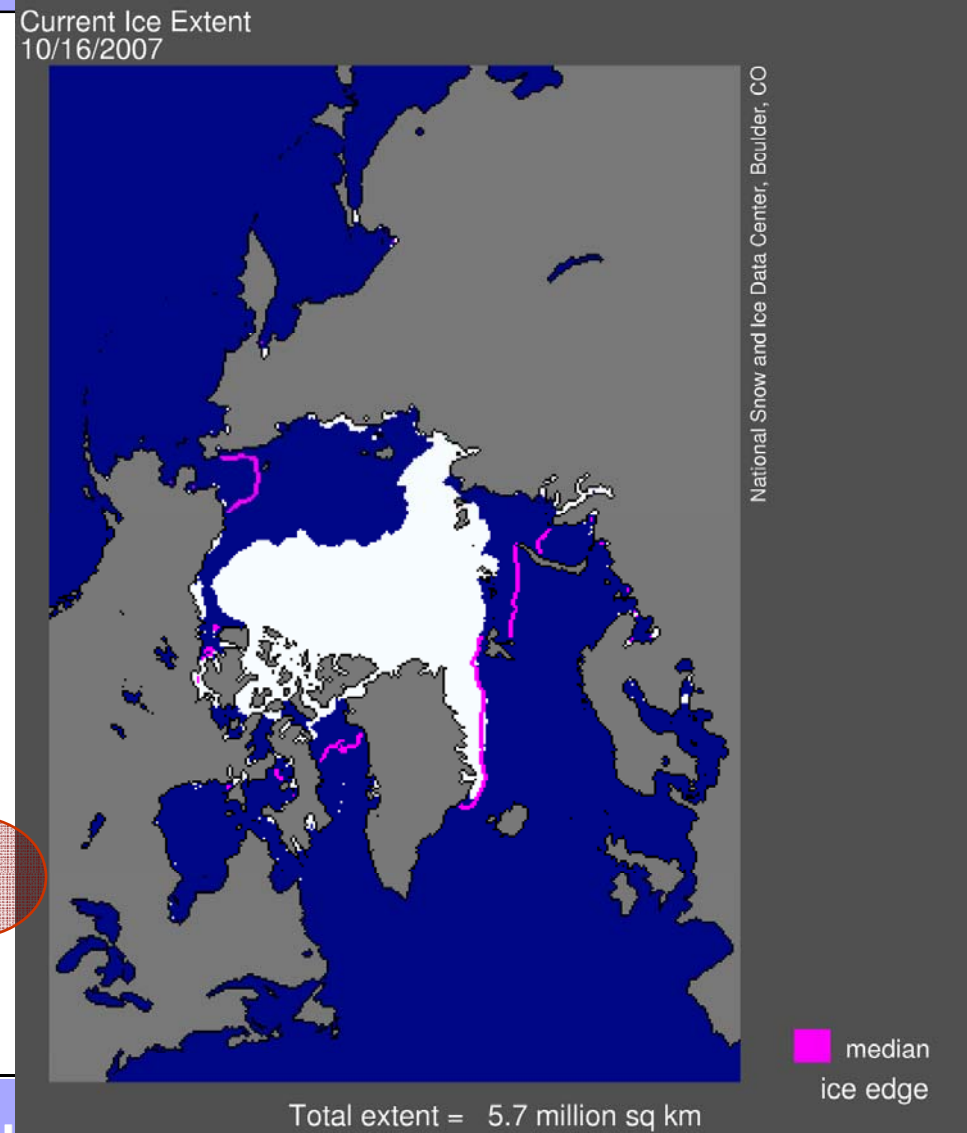
A record 2007 summer retreat

Ice extent anomaly
(million km²)

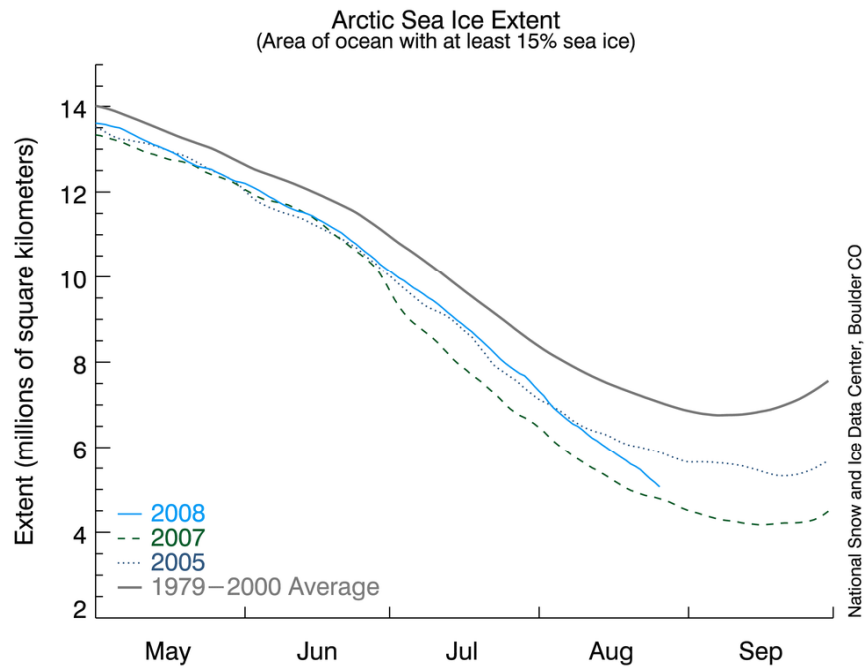


September 2007, record low (4.3 million km²)

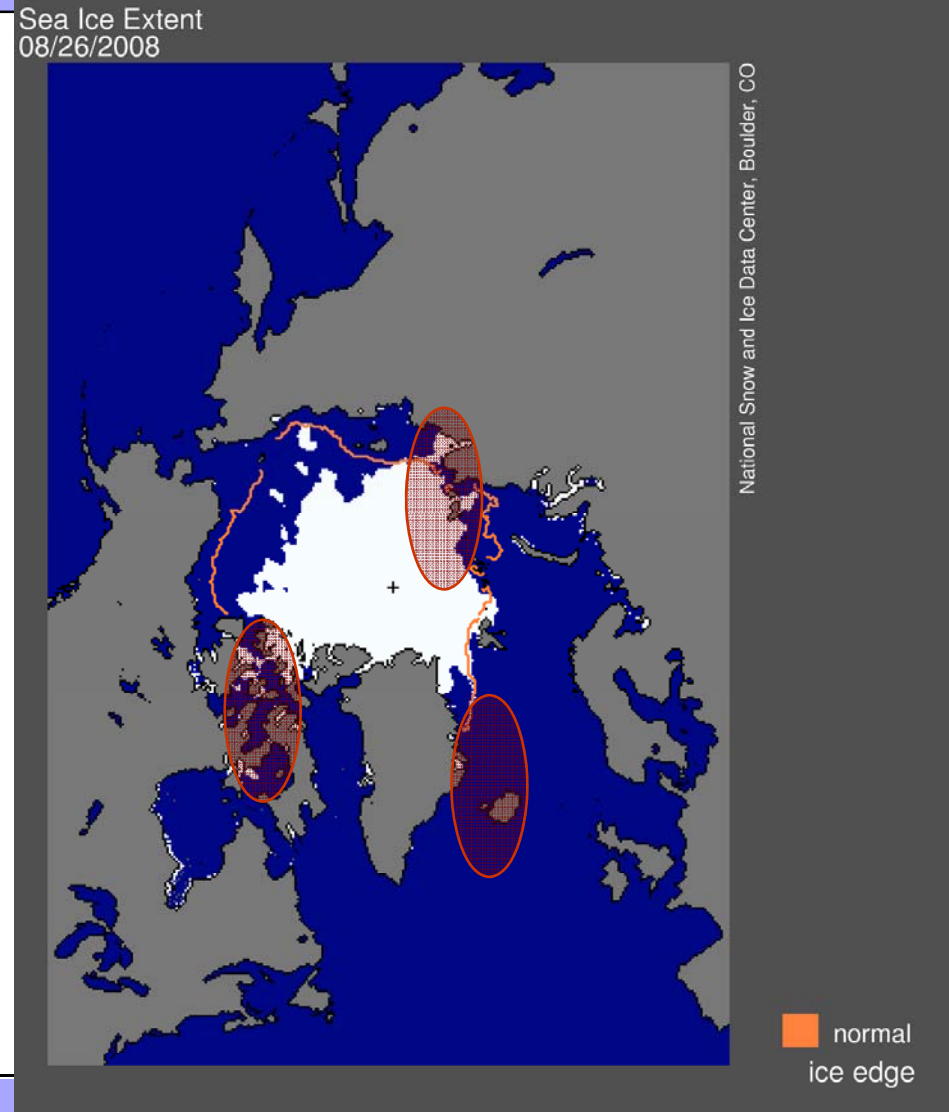
Source: NSIDC



2008 is tracking 2007

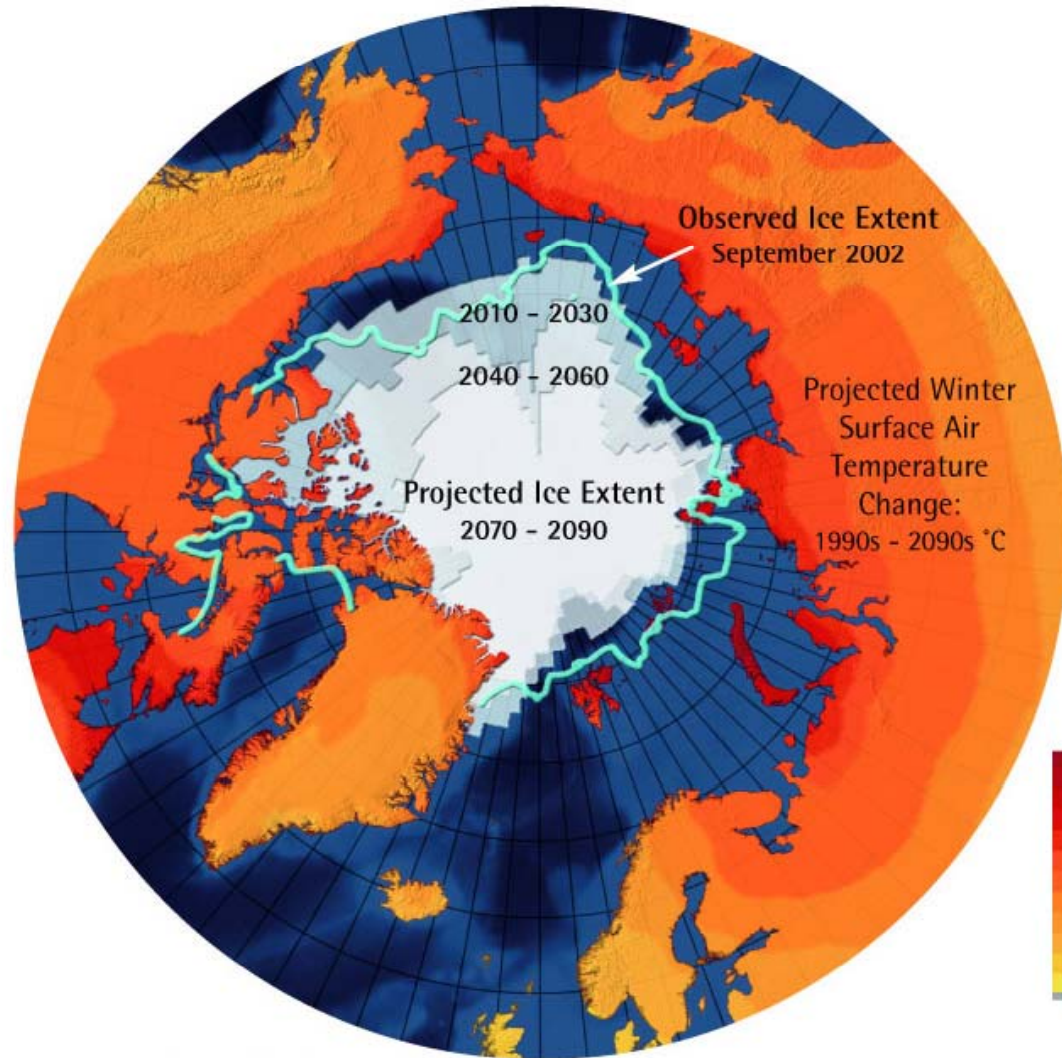


Source: NSIDC



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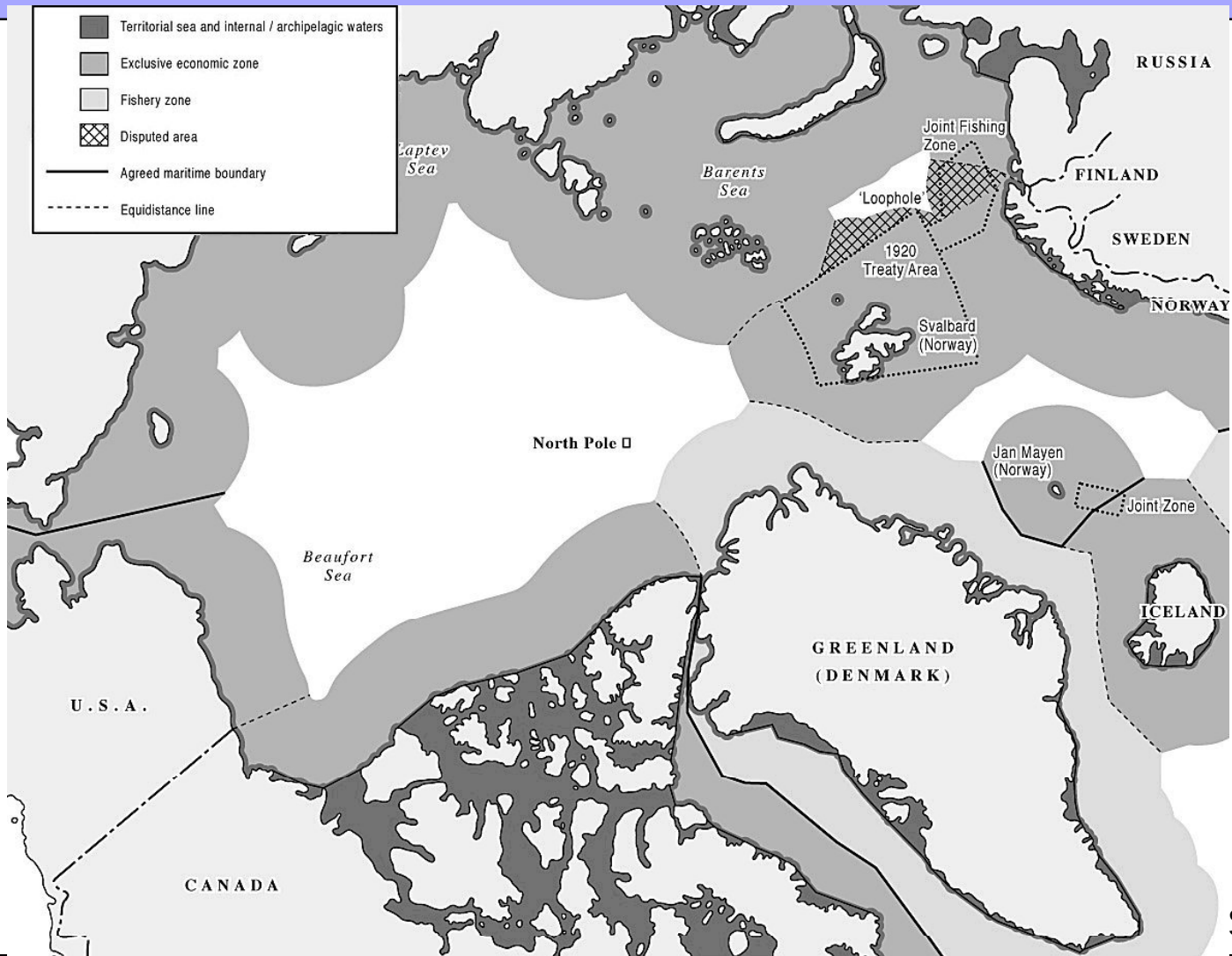
©2004, ACIA / Map ©Clifford Grabhorn

Arctic Maritime Claims

- All Arctic coastal States have claimed
 - 12 nautical mile territorial seas and
 - 200 nautical mile EEZs
- All the Arctic coastal States may be able to make claims to extended continental shelf rights beyond 200 nautical miles
- All in accordance with the UN Convention on the Law of the Sea (all except for USA are Parties)
 - Sovereign rights not sovereignty claimed (beyond the territorial sea)
 - Not a “land-grab”



Arctic Maritime Claims



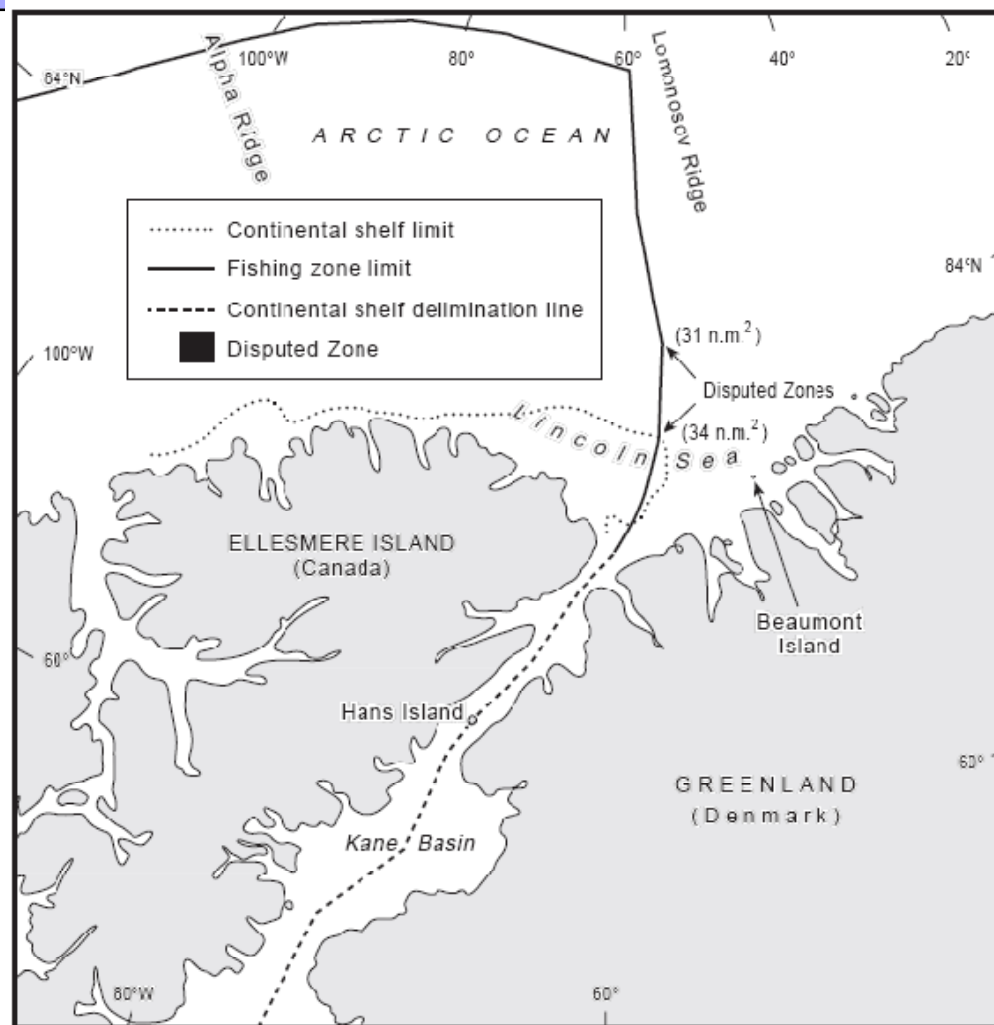
Source: IBRU



Arctic Maritime Boundaries and Disputes

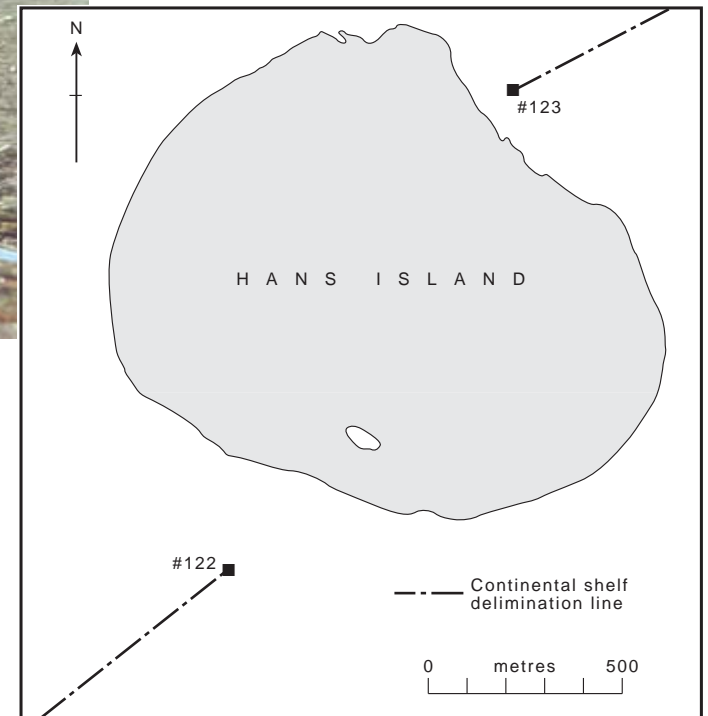
- Territorial disputes
 - Limited
 - Hans Island (Canada/Denmark)
 - Svalbard (Norway/Russia)
 - No dispute over Norway's sovereignty
 - Dispute over maritime claims from Svalbard
- Maritime boundary delimitation disputes
 - Barents Sea (Norway/Russia)
 - Beaufort Sea (Canada/US)

Lincoln Sea



Source: IBRU

Hans Island



Source: IBRU

Beaufort Sea



Source: IBRU

Arctic Outer Continental Shelf Claims

- Russia the first State to make a submission in 2001
 - Claim to c.460,000 square miles of seabed beyond 200nm
 - Protests/comments from Canada, Japan, Norway and USA
- CLCS requested revisions and resubmission
 - Linkage between Russian mainland and the Mendeleev and Lomonosov Ridges questioned
 - Resubmission expected soon

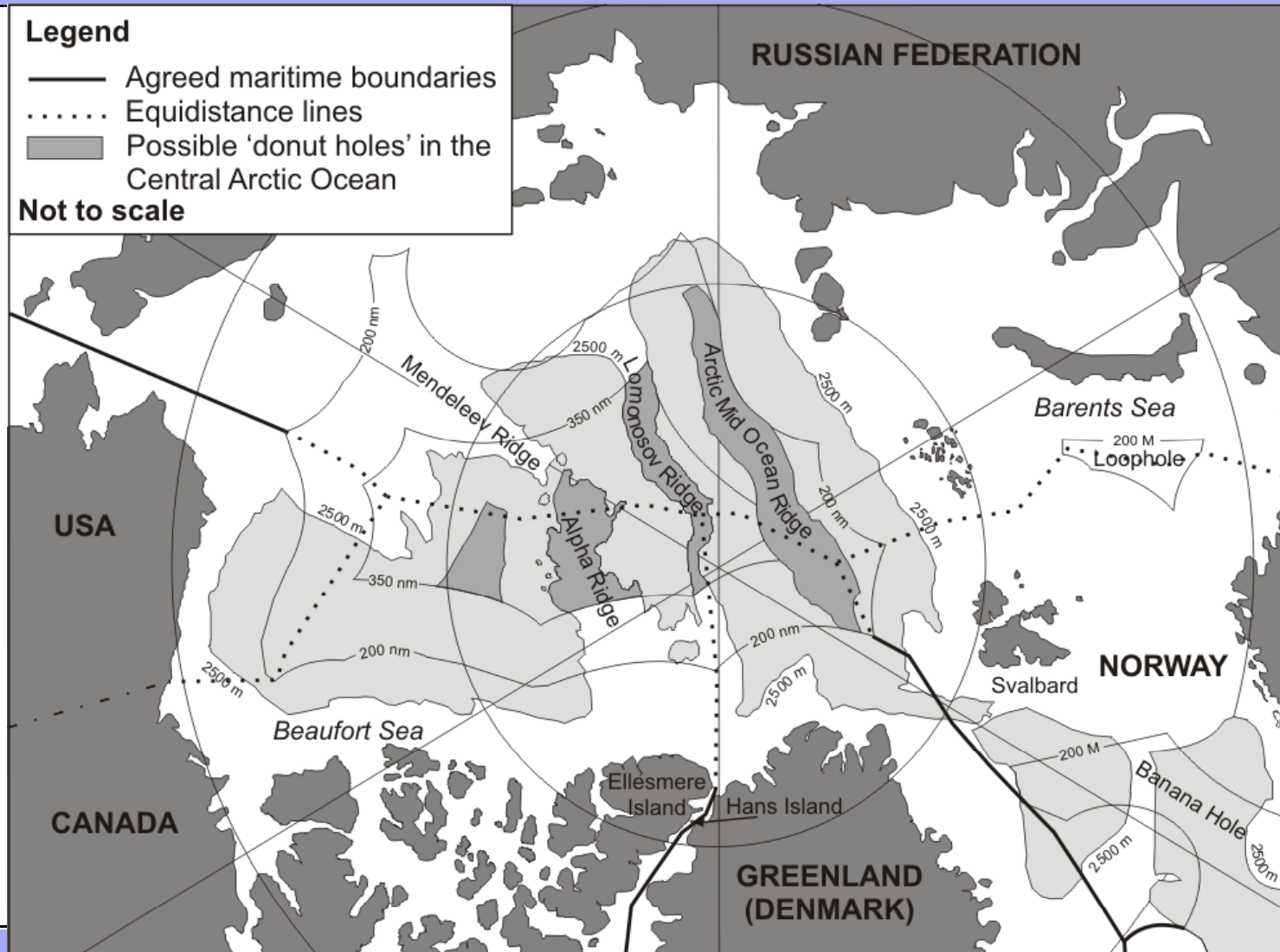
Arctic Outer Continental Shelf Claims

- Norway made a submission in November 2006
- Canada and Denmark preparing submissions
- Deadline for Canada is in 2013
- Deadline for Denmark in 2014



Arctic Outer Continental Shelf Claims

Hypothetically, the whole of the Arctic Ocean claimable except for four 'donut holes'?



After MacNab, 2000 and 2004.

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What's at Stake in the Arctic?

- Access to Resources
 - Fisheries
 - Within EEZs
 - High Seas areas beyond national jurisdiction
 - Sedentary species on the (outer) continental shelf
 - Seabed resources
 - Oil and gas focus but also
 - Deep sea minerals and gas hydrates
 - Deep biosphere
- Navigational opportunities
- Geopolitical considerations
- Risks related to increasing activities
 - Environment and marine biodiversity issues



Arctic Fisheries

- Arctic possess substantial stocks of marine living resources that flourish in the sub-Arctic waters. They are among most productive in the world.
- Regions such as the Bering and Barents Seas produce capelin, squid, crabs, shrimp, scallops, pollock, cod, sablefish, halibut, perch, pacific salmon, sole, flatfish, and turbot.
- Climate change will bring significant changes to fish stocks – positive and negative e.g. increased recruitment, migration, ecosystem impacts.

Arctic Fisheries

- Migration of fisheries will increase uncertainty & complexity in national and international management regimes.
- Drivers: potential loss of stocks from traditional grounds, new stocks from southern areas, displacement and ecosystem impacts.
- Shifting stocks across boundaries will result in new fisheries management challenges e.g. straddling and migratory stocks.



The 'Last Frontier' for Offshore Energy Resources?

- USGS estimated in 2000 that the Arctic may hold as much as 25% of the world's undiscovered oil
 - Inherent uncertainty in such estimates of undiscovered oil
 - Summary of 2000 report did not mention the Arctic specifically
- Russian estimates in the range of 5-10 billion tonnes of fuel equivalent



The 'Last Frontier' for Offshore Energy Resources?

- Wood MacKenzie/Fugro Robertson *Future of the Arctic* study (November 2007):
 - Geo-scientific analysis using oil industry data
 - More conservative conclusions
 - 3m barrels of oil per day and 5m barrels of gas equivalent at peak of production
 - Arctic likely to be mainly a gas province
 - 85% of discovered resource and 74% of potential as gas
 - More difficult to develop and transport than oil
 - Findings “disappointing” in terms of global oil resources and “calls into question” the view that the Arctic “represent one of the last great oil and gas frontiers and a strategic energy supply cache for the US.”

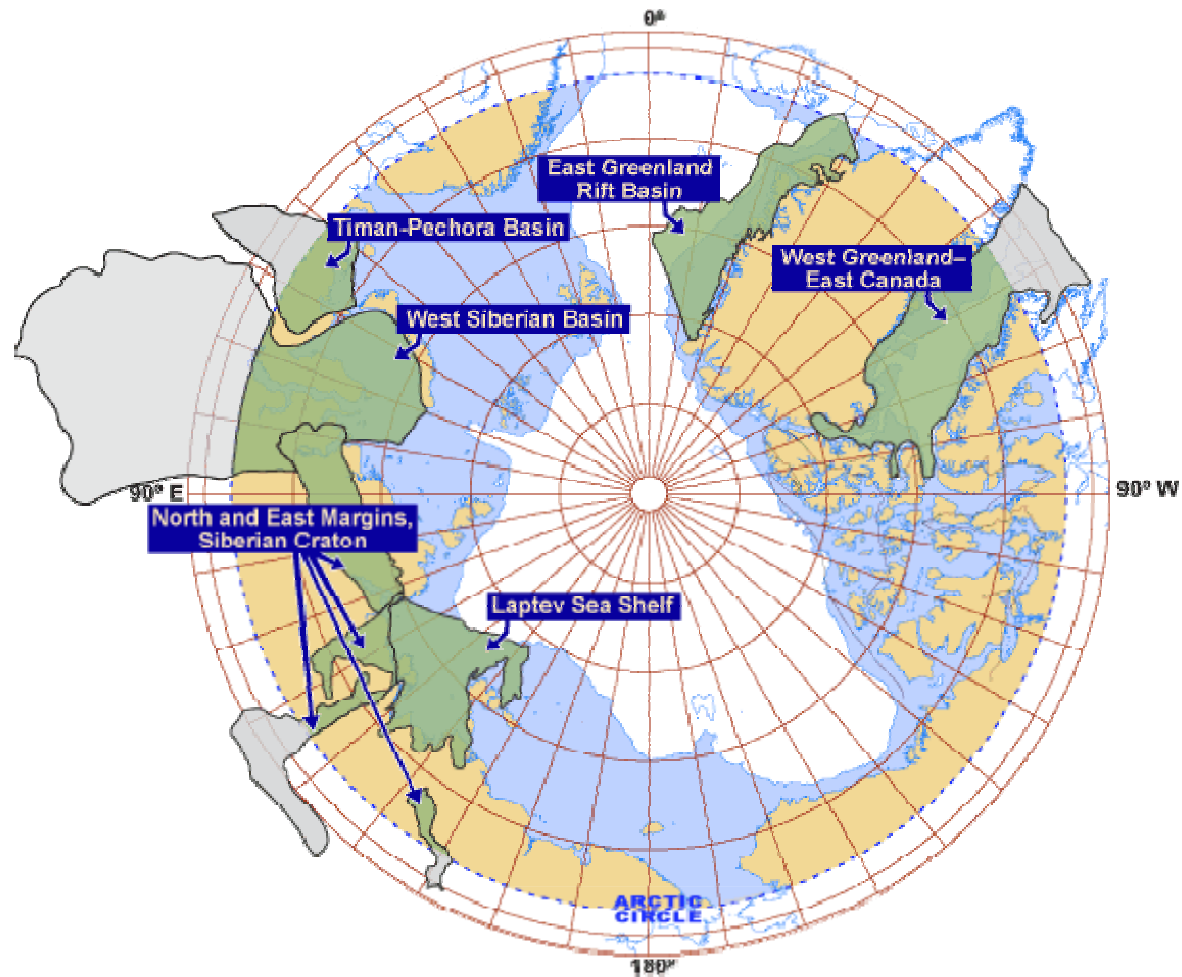


USGS Circum-Arctic Resource Appraisal 2008

- Extensive Arctic continental shelves “may constitute the geographically largest unexplored prospective area for petroleum remaining on Earth.”
- Over 7 million km² of Arctic continental shelf under less than 500m of water
- Estimated resource potential in the Arctic:
 - 90 billion barrels of oil
 - 1,669 trillion cubic feet of natural gas
 - 44 billion barrels of natural gas liquids
 - 84% in offshore areas
- BUT:
 - Sparse seismic and drilling data
 - “probabalistic” methodology therefore adopted
 - No consideration of costs of exploration and development
 - Almost all within current 200 nautical mile EEZ claims



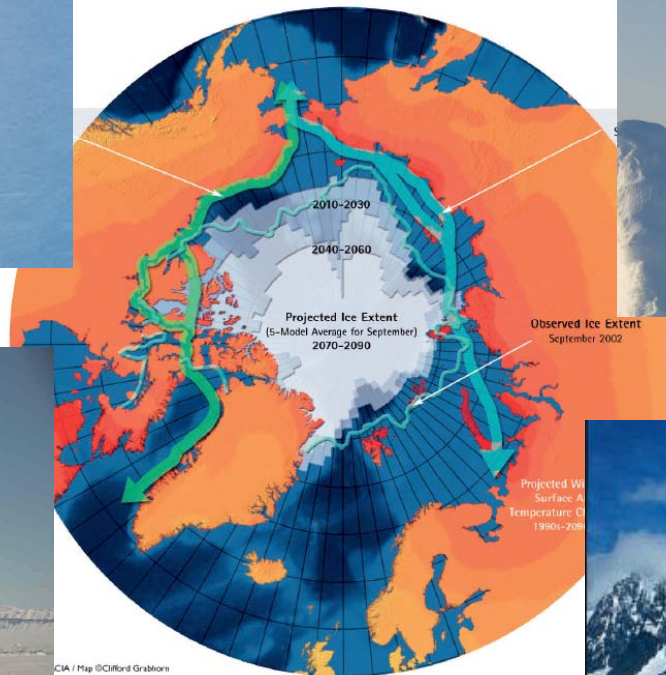
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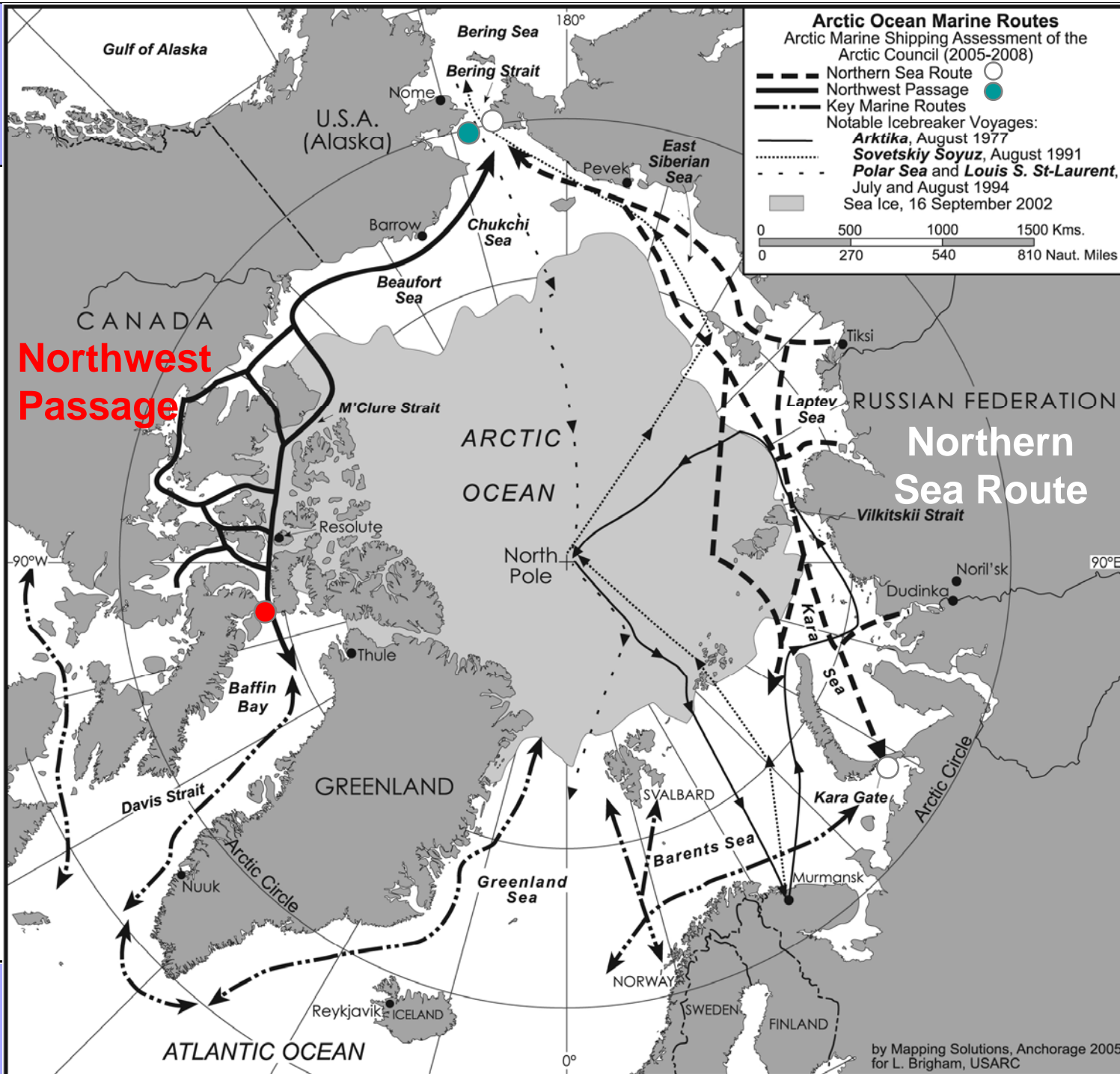


Arctic Navigation

Arctic Climate Impact Assessment

- **Key Finding #6: “Reduced sea ice is very likely to increase marine transport and access to resources.”**





by Mapping Solutions, Anchorage 2005
 for L. Brigham, USARC

The Attraction of Arctic Routes

- The Northwest Passage – The ‘Arctic Grail’
 - c.3,800nm saving on route between Asia and eastern seaboard of US
 - Ice-free in September 2007
 - Dispute between Canada and the US over its legal status
- Northern Sea Route (NSR)
 - Hamburg-Yokohama via NSR – 6,920nm
 - via Suez – 11,225nm
 - c.4,300nm saving
 - Partially open from 2005
- Trans-polar routes
 - Hamburg-Yokohama c.5,000nm
- Will reduced distances necessarily translate into equivalent time/cost savings?

Extent of Arctic Shipping

- Range of views on the speed and extent of development of Arctic shipping – moderated by sea ice retreat, regional development & economic feasibility of trans-Arctic routes.
- Consensus view that trans-Arctic shipping will increase in the future.
- But, developments unlikely to be even (e.g. major navigational challenges likely in the NW Passage).
- **Over-hyped?**
- Fisheries, tourism and oil-led
- In the Nordic Arctic ship based tourism has grown from 5000 visitors in 1975 to 43000 in 2001.
- In 2003, 28 Cruise vessels visited Svalbard 41 times with 29 974 tourists and crew landing.



Impacts of Arctic navigation

Negative

- Safety issues in a severe shipping environment
- Risk of collisions and oil spills
- Introduction of invasive species via ballast
- Pollution from shipping activity e.g. antifoulants, carbon.
- Conflicting uses between sectors
- Impacts from growing maritime sectors e.g. tourism & fishing

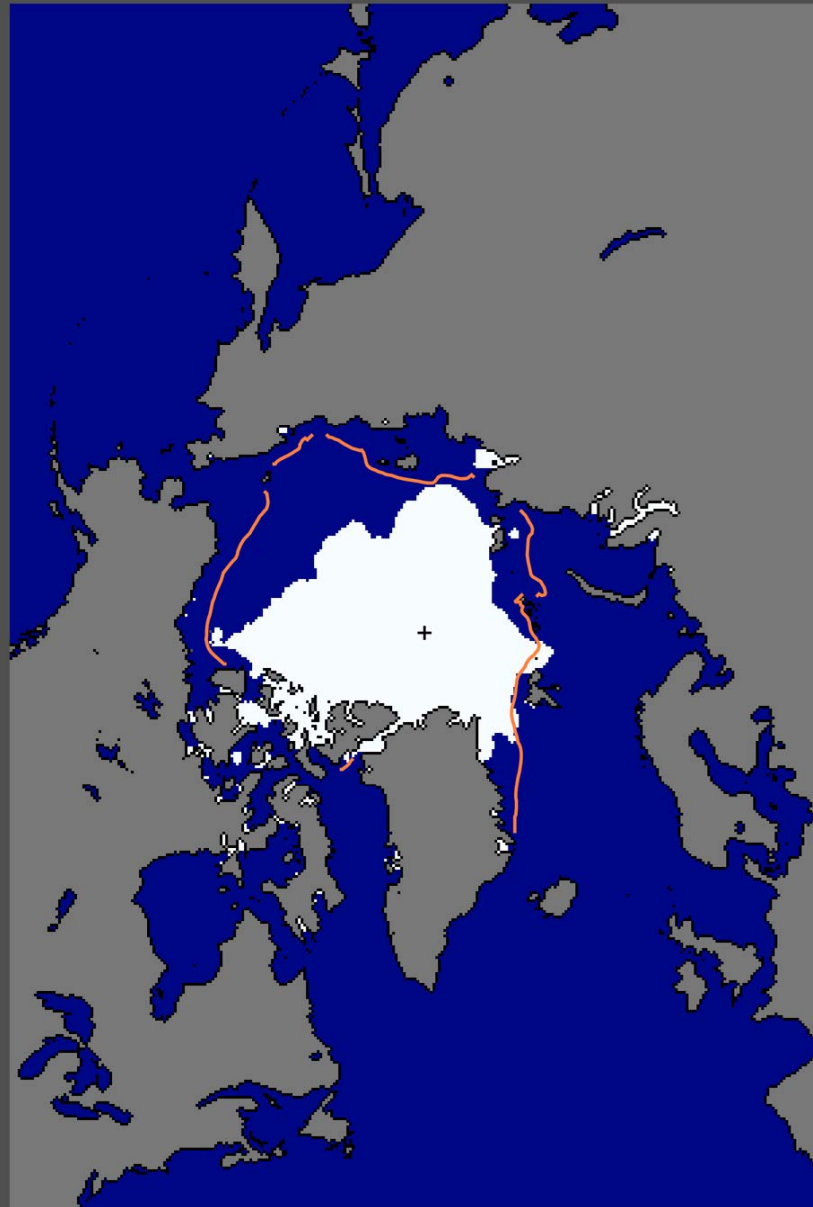
Positive

- Economic development
- Investment and skills for Arctic communities
- Alternatives to traditional sea lanes and chokepoints

Sea Ice Extent
09/23/2008

Cause for
concern?

NW Passage &
NSR both open
on 23rd
September
2008...



National Snow and Ice Data Center, Boulder, CO

normal
ice edge



Potential for Disaster?



M/S Explorer – sank off Antarctica in November 2007, 154 passengers/crew evacuated

Polar ‘expedition cruising’ on the rise – casualties inevitable?



Marine Biodiversity: Threats and opportunities

- The linked threats of climate change and economic development will be the main key threats to Arctic biodiversity.
- Climate shifts and changes in the terrestrial and marine bio-physical system will directly impact the structure and function of ecosystems. Outlined in the ACIA report.



Environmental Impacts Resulting from Increasing Economic Activities

- Oil and gas exploration across the Arctic
- Increased shipping activity – navigation and tourism (risk of oil spills & invasive species)
- Fisheries activity (new areas, habitat impacts, IUU)
- Seabed mining – nodules, strategic minerals (e.g. nickel & copper) and gas hydrates
- Aquaculture
- Coastal infrastructure & development
- Bioprospecting



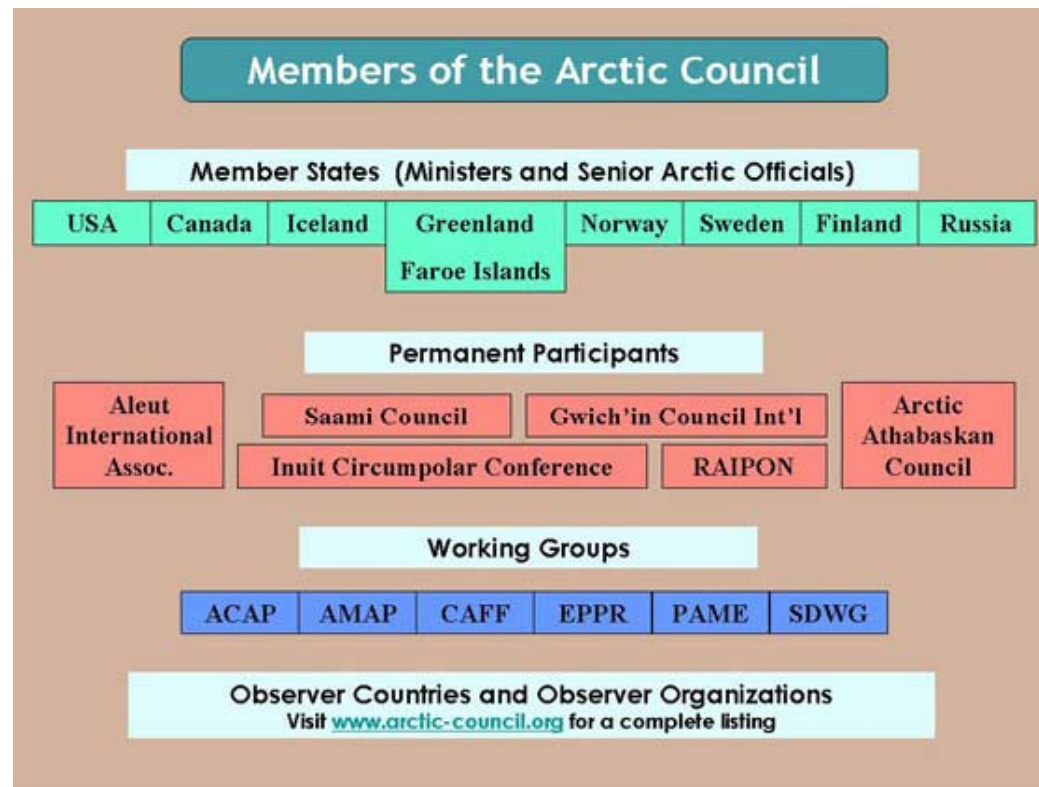
Arctic Governance

- Governance in the Arctic occurs through a mix of domestic legal instruments, international obligations and “soft law” regional agreements.
- The dominant paradigm in the Arctic is one of state sovereignty (or sovereign rights in the maritime sphere) and cooperation via regional instruments.
- Domestic laws control development and environmental management in areas under national jurisdiction, these laws are influenced by international commitments e.g. biodiversity; fisheries; trade.
- Resource access (actual and potential) is a source of friction between Arctic states.



Arctic Governance

- The foundation for regional action has been the Arctic Environmental Protection Strategy 1991, which was superseded by the Arctic Council in 1996.



What has the Arctic Council achieved?

- Mandate is to build cooperation and interaction across six working groups.
- Pursuit of a “soft law” voluntary regime has built coordination of scientific research, environmental management and sustainable development expertise e.g. ACIA
- Significant research outputs, assessments and a forum for diplomatic engagement across the Arctic states.



The Future



- Over recent years questions have been raised by commentators over whether the existing regime is sufficient to protect and manage the Arctic or whether a new regime is required in the face of considerable environmental change and increasing socio-economic activity.
- We suggest three possible futures for Arctic governance.



Future 1: Status Quo

- The most likely scenario – States unlikely to relinquish sovereignty.
- The Arctic Council is the main regional instrument for cooperation and state sovereignty the dominant regime.
- International commitments (e.g. UNCLOS) influence State actions in the Arctic.
- May 2008 agreement among Arctic States to abide by UNCLOS
- Arctic States are ‘guarding their patch’.
- Lack of binding targets & timetables & a ‘lowest common denominator approach. Arctic Council still seen as ‘moderately’ successful.



Future 2: Mixed Reform Regime

- A flexible approach to norm building within existing frameworks - a way to move forward on difficult issues
- Would seek to reform the existing governance approach & address the inefficiencies & gaps.
- Sovereignty is preserved but Arctic states move ahead on an 'issue by issue' basis.
- International commitments and obligations are strengthened and play a major role.



Future 3: Binding Legal Regime

- An Antarctic Treaty for the Arctic?
- A treaty regime could cover territorial issues, environment protection, industry regulation etc.
- A legally binding, comprehensive pan-Arctic Treaty is **highly unlikely!**

Conclusions

- Growing geopolitical, media and industrial interest in the Arctic
- Climate change will change the resource regime and escalate environmental pressures
- The calls for regime reform will continue under an increasingly complex resource future
- Political will, industrial expansion, and geopolitics will shape the future of the Arctic.
- Arctic states will need to negotiate maritime boundaries (versus unilateral action)
- Likely that there will be a form of 'mixed reform' in the system.





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