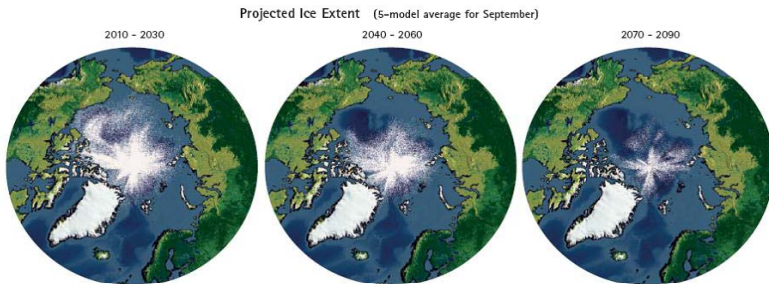
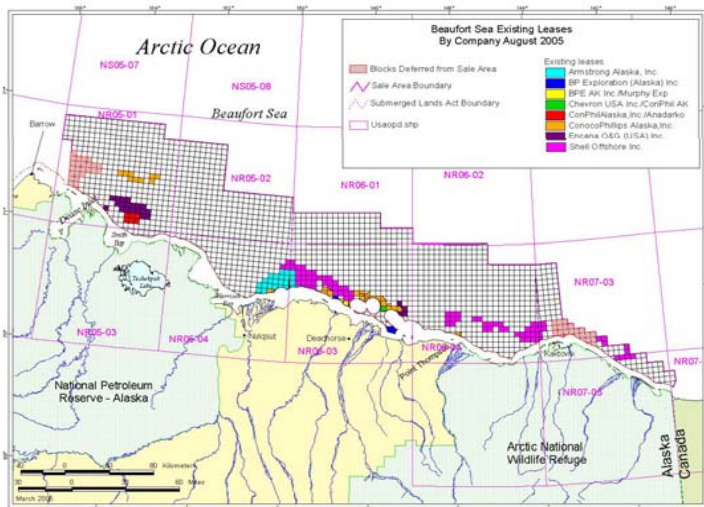
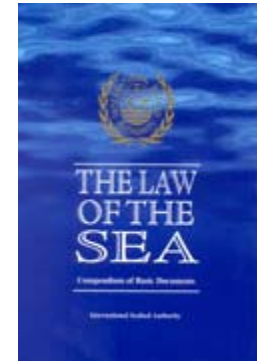
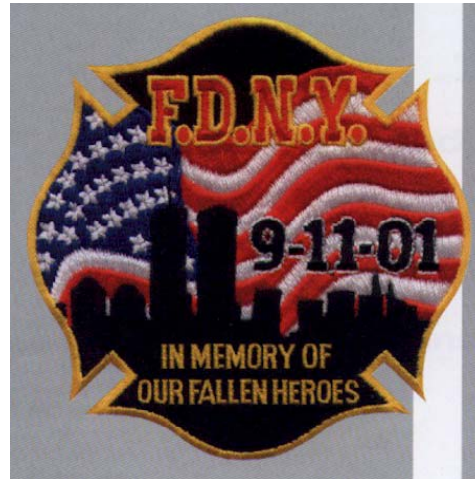


Changes in US (10-15 yr) – Affect Arctic Policy

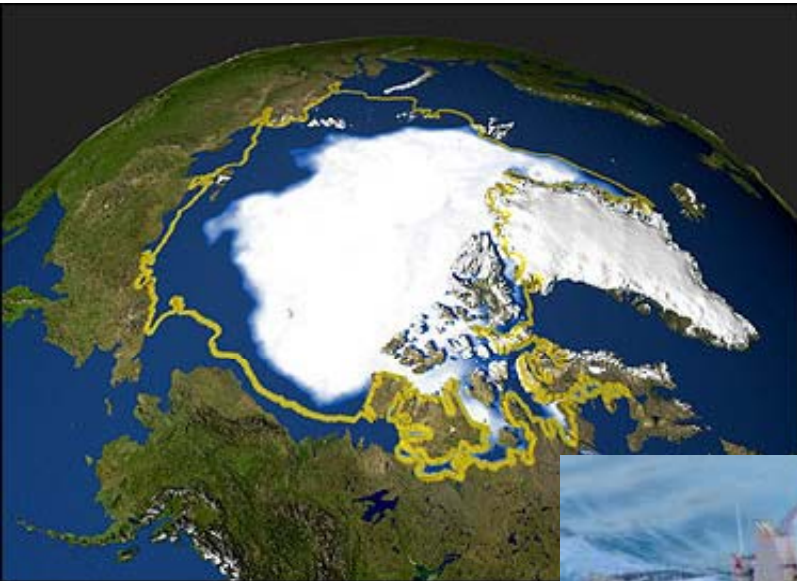
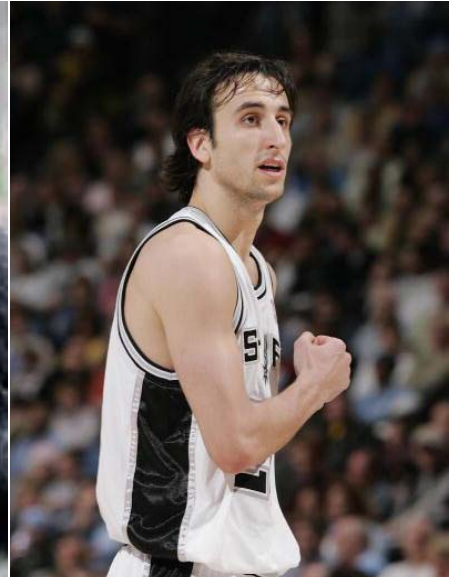
- (1) Arctic sea ice changes
- (2) 1982 Law of the Sea Treaty (US only Arctic nation has not ratified)
- (3) Increased natural resources exploration & expected exploitation (increase in fuel prices)
- (4) 9/11 attacks & focus on homeland and national security
- (5) Hurricanes Katrina & prevention and response focus - “all hazards, all threats” environment
- (6) Evolving security relationships with other nations.



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Why is Maritime Presence needed in Arctic?



Homeland
Security

Arctic Territorial disputes & U.S. Claims (sovereignty)

Two Ways to Split Up the Arctic Ocean

In hopes of gaining access to shipping routes and valuable natural resources, five countries — Russia, the United States, Canada, Norway and Denmark — are strategizing on how to claim ownership of parts of the Arctic Ocean.

What countries have now, and what they may claim

Coastal countries control the sea 200 miles from their shores, like the U.S.-controlled area here.

This area is not currently part of any country. Nations can make claims in the area, which must then be approved by the United Nations.

For countries to make claims in this area, it must be proven that underwater ridges here are part of a continental shelf, rather than a separate feature of the sea floor.

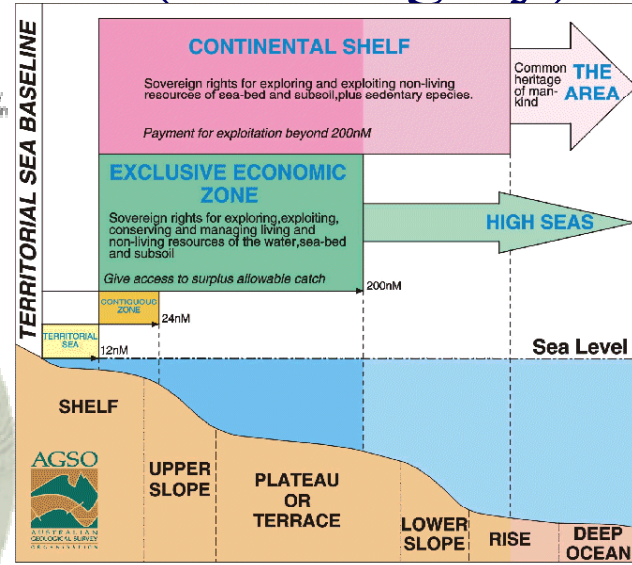


1 The median line method Proponents: Canada, Denmark, United Nations

The sea would be divided into areas proportional to the amount of coastline a country has.

The United States could claim this area.

A treaty, The Law of the Sea, dictates that countries cannot claim the areas shaded in yellow because the areas lie too far from coasts or continental shelves.



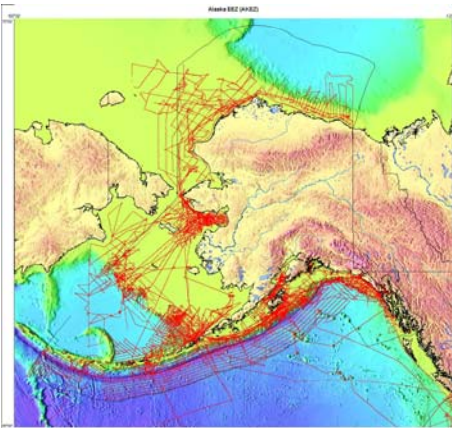
2 The sector method Proponents: Russia, Norway

The sea is divided along lines of longitude, with the North Pole as the center.

The United States could claim this area.



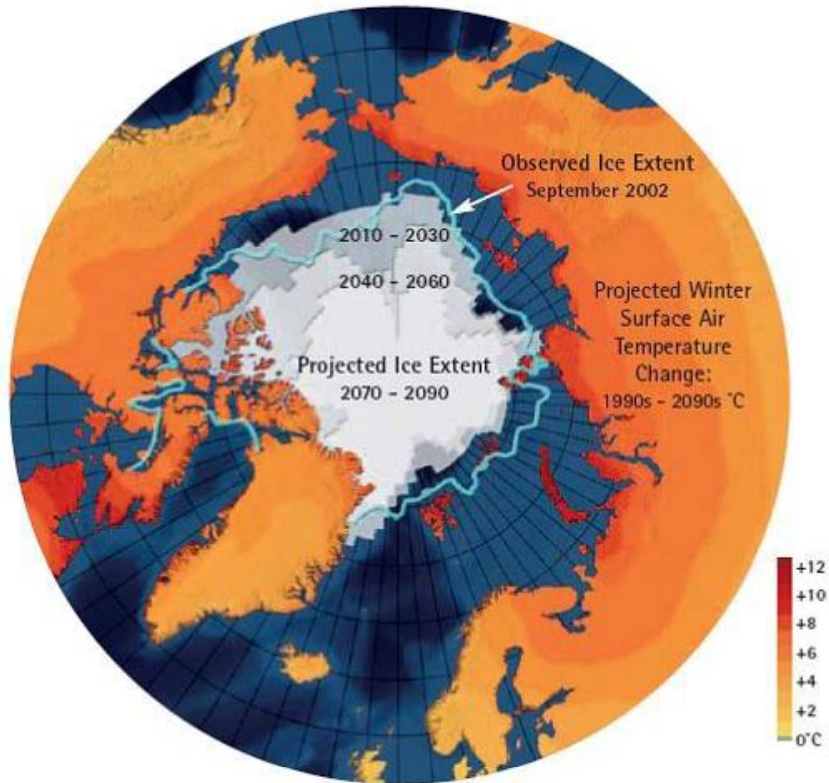
The North Pole would be split among countries.



Homeland Security

Arctic Sea Ice Changes – Why Icebreakers?

Projected Changes in Sea Ice



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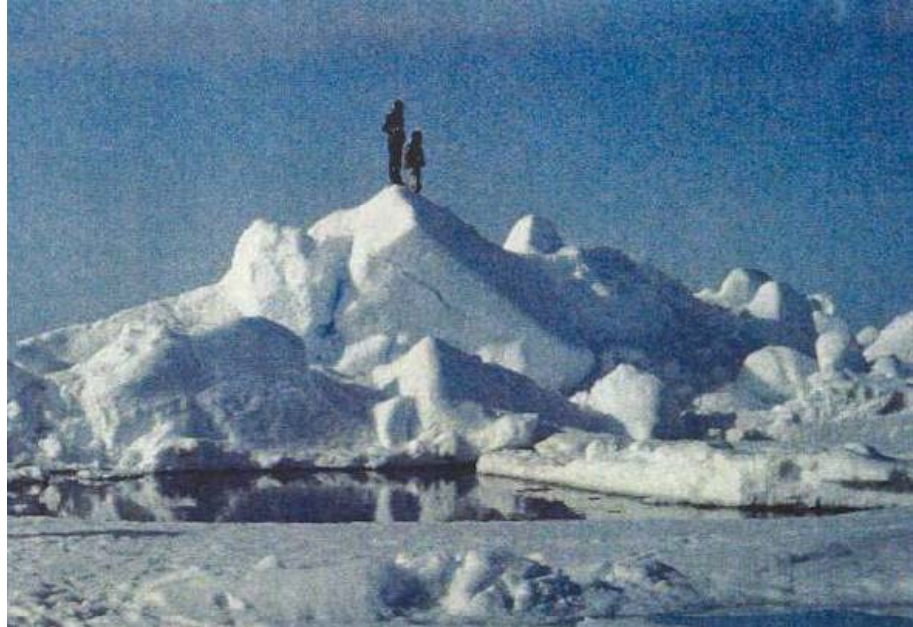
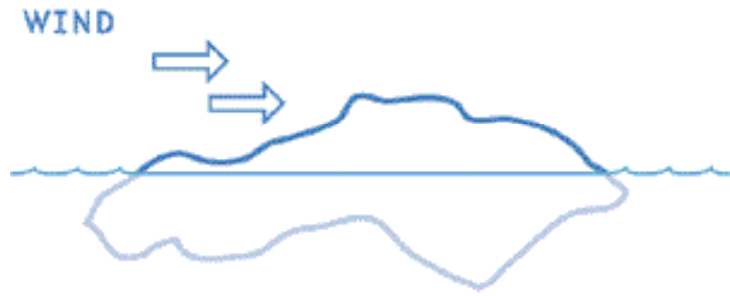
Arctic sea ice more dynamics?

Arctic winter sea ice conditions?

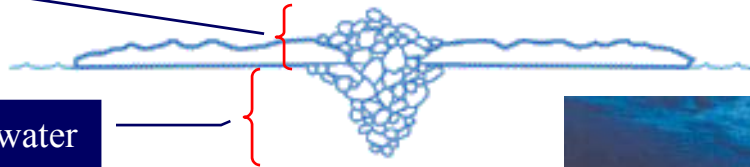


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Sea Ice Dynamics



Sail: A 10' ridge indicates that the keel is probably ~ 50' deep.



Keels: 7/8 of ridge is below water



Homeland Security