

National Security Implications of a Warming Arctic for the United States and Russia

Marina Zaiats¹ and Tom Litwin²

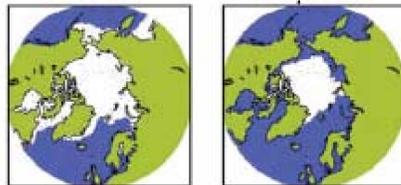
¹ Environmental Science and Policy Program, Smith College, ²Director Clark Science Center, Smith College

Sea Ice Extent

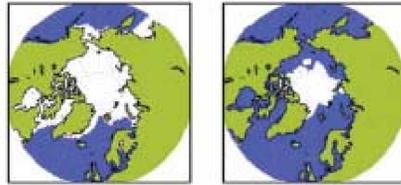
Projected Ice extent
(5-Model Median)

March September

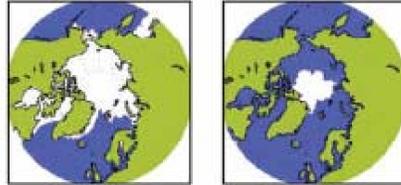
2010-2030



2040-2060



2070-2090



“The sea ice cover is in a downward spiral and may have passed the point of no return. As the years go by, we are losing more and more ice in summer, and growing back less and less ice in winter. We may well see an ice-free Arctic Ocean in summer within our lifetimes.”

-Senior Scientist Mark Serreze, National Snow and Ice Data Center (NSIDC) 2007

Image Source: Arctic Sea Ice Simulations for the 21st Century Arctic Climate Impact Assessment

Question: How will the changing Arctic environment impact national security in the United States and Russia - understood specifically through its effect on territory rights, economic interests, and environmental protection?

UNITED STATES

Not all security risks are military in nature

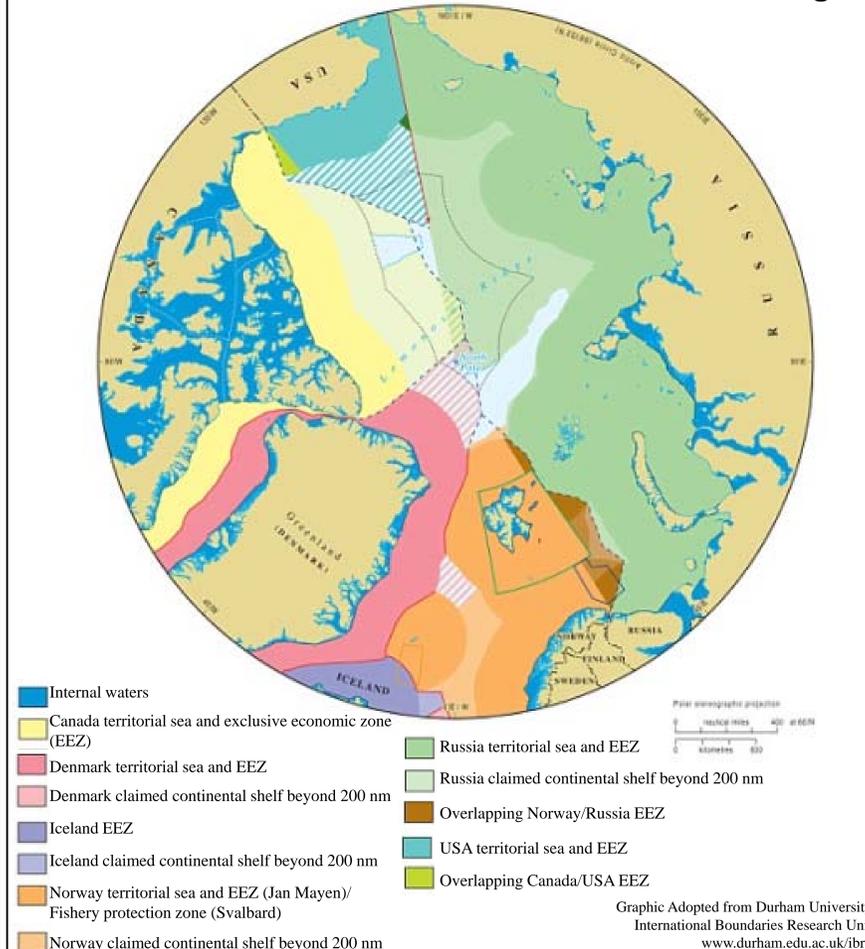
U.S. priorities in the Arctic include: “national security and homeland security, international governance, extended continental shelf and boundary issues, promotion of international scientific cooperation, maritime transportation, economic issues, including energy resources, and environmental protection and conservation of natural resources”

-January 2009 National Security Presidential Directive

United Nations Convention on the Law of the Sea

- ❖ Provide legal standards for shipping, fishing, and mining and codify customary navigation and transit principles
- ❖ Add an additional 4.1 million square miles of ocean under U.S. Jurisdiction (stipulates the establishment of an exclusive economic zones (EEZs) 200 nautical miles from coastline)
- ❖ Solidify the United States’ commitment to multi-lateral cooperation in the Arctic

Maritime Jurisdiction and Boundaries in the Arctic Region



Conclusions

- ❖ The U.S. should ratify the United Nations Convention on the Law of the Sea
- ❖ Melting Arctic ice will increase shipping activity in Arctic waters; in anticipation of this trend the U.S. should rejuvenate investment in its ice breaker fleet and port infrastructure
- ❖ U.S. and Russia should invest in collaborative environmental protection research and commit to concrete conservation measures
- ❖ Russia is more prepared than the U.S. to take advantage of a warming Arctic due to its extensive Arctic coastline and member status with the Law of the Sea Convention. A demilitarized and stable Arctic is more advantageous to future Russian natural resource extraction and development of international shipping routes

Economic Opportunities

Future Arctic marine operations include: research, natural resource extraction, shipping and tourism industries which depend on infrastructure development, operational, technical studies, and uniform ship navigation training

“U.S. icebreaking capacity is now at risk of being unable to support national interests in the north”

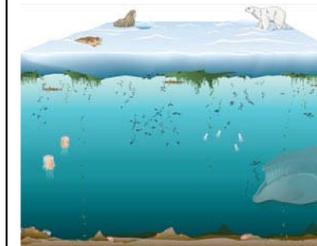


-Polar Icebreakers in a Changing World 2007



Environmental Protection

Robust Arctic development will have ecological impact via:

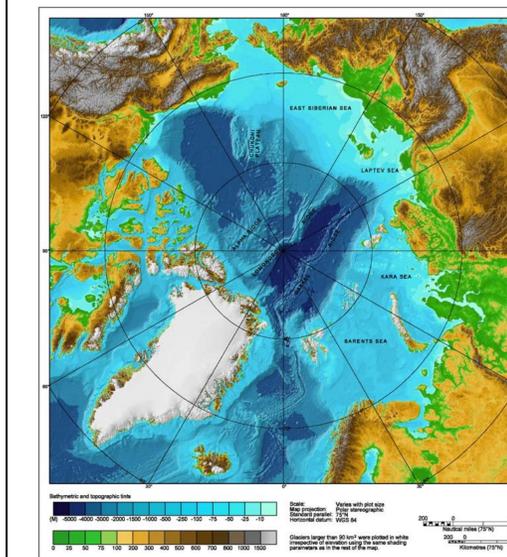


oil spills, ship strikes on marine mammals, introduction of alien species, and disruption of migratory patterns



RUSSIA

Goals of National Security Policy 2009: territory delimitation development of natural resources and shipping industry in the Arctic -Foundations of the Russian Federation National Policy in the Arctic Until 2020 and Beyond



The Russian Arctic “contains 1% of the Russian population and 18% of the territory, but produces 20% of the GDP and 20% of Russia's total export”
-Arctic Council Arctic Marine Shipping Assessment 2009

