The Geopolitical Consequences of an Arctic Spring
Arctic Geopolitical Timeline

1867
• U.S. purchases Alaska from Russia for $7.2 million.

1890s – 1940
• Economic discoveries (e.g., gold rush)

World War II
• Supply routes by air and by sea to resupply the Soviet front through the port of Murmansk
• Japanese invasion of two Aleutian Islands; infrastructure development to prevent Japanese invasion of Alaska
Arctic Geopolitical Timeline

Cold War
• Geostrategic and geopolitical area for the United States and the Soviet Union
• Construction of U.S. continental defense and deterrence system stretching roughly 3000 miles
• Prudhoe Bay – North Slope oil discovery

Present
• Oil and gas development
• U.S. missile defense architecture
• Enhanced search and rescue and border security
## Economic Drivers in the Arctic

<table>
<thead>
<tr>
<th>Oil and Gas</th>
<th>Potential of 13% of world’s undiscovered oil resources and 30% of its undiscovered gas. Russian continental shelf may contain 100bn tons of recoverable reserves. Arctic oil and gas market was estimated at $12bn in 2011; growth anticipated next decade.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Resources</td>
<td>Contains vast amounts of nickel, iron ore, plutonium and rare earth minerals. The Arctic’s share of global mineral extraction is approximately 10% for nickel, cobalt and zinc; 40% for palladium, 15% for platinum, and 20% for gem-quality diamonds. The Arctic may supply 25% of the global demand for rare earth elements. The estimated value of Arctic minerals is $1.5-2 trillion.</td>
</tr>
</tbody>
</table>
## Economic Drivers in the Arctic

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Fisheries</td>
<td>Significant fish stocks, with some of the largest stocks of Pacific salmon, Atlantic cod, and pollock. Annual fish catches are, on average, about 17,000 tons in Arctic Russia, U.S., and Canada.</td>
</tr>
<tr>
<td>Trans-shipment</td>
<td>Destination and transshipment will rapidly increase through Northern Sea Route (1 million tons of cargo anticipated in 2012).</td>
</tr>
<tr>
<td>Tourism</td>
<td>Cruise ship traffic and adventure tourism continues to steadily increase, with a current average of 1.5 million tourists visiting the Arctic annually, up from 1 million in the 1990s.</td>
</tr>
</tbody>
</table>
### Arctic Coastal State: Russia

#### Economy

Up to 90% of Russian hydrocarbon reserves on its continental shelf are in the Arctic. At current levels, natural gas reserves in Russia’s Arctic region could generate enough fuel to provide Europe with natural gas for 75 years.

The Russian Arctic is also home to vast deposits of nickel, copper, coal, gold, uranium, tungsten and diamonds.

Extraction of these natural resources accounts for 11 percent of Russia’s GDP and 22 percent of its export earnings.

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*Medvedev: "Our first and main task is to turn the Arctic into a resource base for Russia in the 21st century"*
Economy

Territorial claims have been submitted to the UN Commission on the Limits of the Continental Shelf for the Lomonosov Ridge, an underwater mountain chain thought to contain vast stores of oil and natural gas. Canada and Denmark have competing claims.
## Arctic Coastal State: Russia

### Economy

July 2012 Russian law on the Northern Sea Route imposes regulations and shipping fees for vessels; establishes a new Northern Sea Route Administration to manage icebreaker services and organize search and rescue operations. (Note: does not include Murmansk, Barents Sea)

The first of ten search-and-rescue centers along the Northern Sea Route with a total cost of €23.4mn ($29.9mn) is planned to be open in summer 2012.

Russia has 25 icebreakers (government & privately owned; 6 are nuclear), critical to Northern Sea Route development. Three new nuclear icebreakers are planned to be constructed before 2020.
## Arctic Coastal State: Russia

<table>
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<tr>
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<tbody>
<tr>
<td></td>
<td>Russian military modernization program will increase defense spending from 3% of GDP in 2011 to 5-6% over the next decade.</td>
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<tr>
<td></td>
<td>2013 National Defense budget increased by 25.8% to €58 billion); another 18.2% increase expected in in 2014, and a 3.4% increase to follow in 2015.</td>
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<tr>
<td></td>
<td>A $100 million modern rescue ship will be added to the strategic Northern Fleet in 2014. The Navy will invest $4bn to build 5 Borei submarines carrying the new Bulava ballistic missiles by 2015; 10-12 vessels will be commissioned in the next decade.</td>
</tr>
</tbody>
</table>
## Arctic Coastal State: Canada

### Economy

Northern Economic Development (SINED) initiative focuses on territorial economies, diversification and Northerners' participation in the economy.

Industrial commercial fishing in the Canadian Arctic occurs in Baffin Bay and Davis Strait. This provides a substantive contribution to the country’s $2bn fishing industry.

Asia Pacific Gateway and Corridor Initiative: make Canada the most competitive exit and entry point in North America for Asian and Canadian goods, services, and investment. Since 2006, projects amounted to more than $3.5 billion, including federal contributions of over $1.4 billion.
**Arctic Coastal State: Canada**

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Economy</strong></td>
<td>Canada has invested $109 million through 2014 into research and Arctic science to substantiate seabed and extended continental shelf claims.</td>
</tr>
</tbody>
</table>
| **Security** | Claims Northwest Passage an internal strait and strives to “exercise control over and defend Canada’s sovereignty in the Arctic.”  
Northern Watch Project $10 million for installing underwater surveillance sensors.  
The fate of Canada’s planned polar satellite system is uncertain due to surging cost projections ($1bn, up from $600 million), funding reductions and budget delays. |
Arctic Coastal State: Canada

Security

Increased military procurement of Arctic offshore patrol ships, regular patrols for surveillance and security purposes, monitoring and control of Northern airspace (NORAD), maintain SIGINT facility, new Arctic training center in Resolute ($18 million) is expected to be ready in summer 2013.

Military exercises: annual Operation NUNALIVUT (last – April 2012), Operation NANOOK (upcoming – summer 2012) in collaboration with the U.S. and Denmark.
## Arctic Coastal State: Norway

### Economy

Commercial discoveries of oil and gas estimate 3.3 billion barrels of oil equivalent for the Johan Sverdrup find in the North Sea and 600 million barrels of oil equivalent for the Skrugard-Havis discovery.

Promoting cooperation with Russia on a number of bilateral economic, environmental and border projects.

In May 2012 Statoil signed a potential $100 billion cooperation agreement with Rosneft to develop Russia’s fields in the Barents Sea and Sea of Okhotsk. Statoil is also a participant in the Shtokman Gas Field.
### Arctic Coastal State: Norway

<table>
<thead>
<tr>
<th>Economy</th>
<th>Culturally and economically important fisheries industry provides roughly $2.6 billion annually or 0.6% of the country’s GDP.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security</td>
<td>High North is Norway’s foreign policy priority.</td>
</tr>
<tr>
<td></td>
<td>Relocated armed forces’ joint operational headquarters north of the Arctic Circle, relocated army staff from Oslo to northern Norway.</td>
</tr>
</tbody>
</table>
## Arctic Coastal State: Norway

### Security

In March 2012 Norway announced plans to reequip one of its units to an ‘Arctic Battalion’.

Construction of Aegis capable frigates, modernization of the air force through the purchase of new F-35 fighter aircraft.

Conducting joint military exercises: Pomor-2012 naval drills with Russia (May 2012) and NATO Cold Response 2012 (March 2012), with 16,000 soldiers from 15 nations. Moscow declared exercise “provocative.”
Greenland’s offshore oil and gas resources are estimated at 52 billion barrels of oil equivalent.

In 2010 Greenland awarded seven oil and gas exploration licenses in the Baffin Bay after oil was found in the first offshore exploration in a decade. Two unsuccessful years of drilling in Baffin Bay and Davis Strait off Greenland’s west coast have occurred.

Substantial Mineral wealth (rare earth minerals, uranium, gold and diamonds). Holds the largest untapped resources of rare earth elements in the world, estimated to meet a quarter of the global demand for the next 50 years. China has shown interest in investing $219 million in infrastructure projects in Greenland in exchange for mineral extraction licenses.
## Arctic Coastal State: Denmark/Greenland

### Economy

<table>
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<tr>
<th>The fishing industry accounts for 90% of exports and contributes about 20% to the national GDP.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growing tourism industry attracts about 65,000 tourists annually (four-fold increase in cruise visitors in the past decade).</td>
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<tr>
<td>Denmark will submit scientific claims to the UN Commission to extended its continental shelf before the end of 2014.</td>
</tr>
</tbody>
</table>
The Kingdom of Denmark released its new Arctic strategy in September 2011.

Danish Defense Agreement 2010–2014: Greenland Command and the Faroe Command to be combined into a joint service; creating an Arctic Response Force

Improving and updating the defense infrastructure by expansion of Station Nord and Thule Air Force Base
### Arctic Coastal State: U.S.

**Economy**

- Decreasing North Slope production and lack of new fields; increasing domestic pressure to explore Beaufort and Chukchi Seas.

- Alaska’s Red Dog mine produces 10% of the world’s zinc and in 2008 accounted for 55% of the mineral value produced in Alaska.

- 54% of U.S. fishing stocks originate from Alaska. Alaskan tourism industry generates $3.4 billion annually in direct visitor spending and labor income.
Arctic Coastal State: U.S.

Security

NSPD-66: Focus on missile defense and early-warning systems, ensuring freedom of navigation and over-flight, preventing terrorist attacks and mitigating criminal or hostile acts

Significant challenges to the existing search-and-rescue capabilities: infrastructure, operating bases, Arctic-capable ships and aircraft, maritime communications and navigation

Need for investment and coordination by the U.S. Government
## Arctic Council Member: Iceland

<table>
<thead>
<tr>
<th>Economy</th>
<th>Fisheries: vitally important for the Icelandic economy. In 2011 the Icelandic exports represented 40% of the country’s total export value. The $1.5 bn fishing industry contributes to about 11% of the national GDP.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure</td>
<td>Iceland has a potential to host transshipment hubs and harbors for tourist ships. Chinese investment in financially weakened Iceland is growing. Chinese tycoon secured lease of 300 sq. km (0.3% of the land mass of the country) to build an ecotourism holiday resort. Premier Wen Jiabao's visit in April 2012 focused on increasing cooperation in Arctic research.</td>
</tr>
</tbody>
</table>
### Arctic Council Member: Iceland

<table>
<thead>
<tr>
<th>Security</th>
<th>Member of NATO as a non-military country. Air policing is conducted by NATO forces since 2007.</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>The U.S. and Iceland jointly led planning and execution of Northern Viking air defense exercises in 2007, 2008, and 2011, and planning for subsequent joint endeavors is underway. The U.S. and the Icelandic Coast Guard have a joint training and exchange program</td>
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<tr>
<td></td>
<td>Iceland has partnership agreements with neighbor states, in particular with Danish institutions operating both East and West of Iceland.</td>
</tr>
</tbody>
</table>
### Arctic Council Member: Sweden

<table>
<thead>
<tr>
<th>Economy</th>
<th>Mining operations include ore and mineral extraction, base metal, iron and titanium projects. Mining industry generates roughly $7bn annually, or 1.3% of GDP.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hunting, fishing and reindeer herding; fisheries and raw materials (pulp, paper and wood). The fishing sector contributes roughly $1bn annually, or 0.2% to Sweden’s GDP.</td>
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<tr>
<td></td>
<td>Tourism is the country’s fastest growing sector; the Lapland province has seen roughly a 50% increase in tourists in the past decade.</td>
</tr>
<tr>
<td></td>
<td>Chinese Premier's visit in April 2012 focused on increasing cooperation in Arctic research.</td>
</tr>
</tbody>
</table>
# Arctic Council Member: Sweden

## Security


Sweden has a fleet of five state-owned icebreakers that it uses in cooperation with Finland. In 2011 Sweden ended a long-standing icebreaker leasing agreement with the U.S.

Sweden is the current Chair of the Arctic Council (2011-2013) with a focus on environmentally sustainable development and positive cooperation between the Arctic states and indigenous peoples.
### Arctic Coastal State: Finland

**Economy**

Finnish expertise in offshore industries and shipbuilding, infrastructure, machinery and equipment, logistics and extensive knowledge of Arctic conditions and environmental issues. Finland has a long history of building Arctic vessels for the Soviet Union and later – Russia.

The national tourism industry accounts for 2.3% of the Finnish GDP, and provides around 64,000 jobs. In 2011, the Finnish Lapland has attracted 16% of the 5.5 million overnight stays.

The Finnish Lapland contains significant deposits of chrome, copper, and gold. Over 4 billion euros will be invested in Arctic mining over the next three years.
# Arctic Coastal State: Finland

<table>
<thead>
<tr>
<th>Security</th>
<th>Finland has an extensive expertise in cold weather warfare and territorial defense.</th>
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<tbody>
<tr>
<td></td>
<td>Finland takes part in the Nordic Defense Cooperation. It also defines its membership in the EU as a fundamental security policy choice.</td>
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<tr>
<td></td>
<td>Finland has a well-renowned center of expertise that provides training in both civil and military crisis management, including for search and rescue operations in the Arctic.</td>
</tr>
</tbody>
</table>
Arctic Strategies

- **US:** Arctic Region Policy, NSPD-66/HSPD-25 (2009)
- **Canada:** Canada's Arctic Foreign Policy: Exercising Sovereignty and Promoting Canada’s Northern Strategy (2011)
- **Russia:** The Fundamentals of the Russian Federation's State Policy in the Arctic (2008)
- **Norway:** The Norwegian Government’s High North Strategy (2006)
- **Denmark:** Kingdom of Denmark Strategy for the Arctic 2011–2020 (2011)
- **Iceland:** A Parliamentary Resolution on Iceland's Arctic Policy (2011)
- **Sweden:** Sweden's Strategy for the Arctic Region (2011)
- **Finland:** Finland's strategy for the Arctic region (2010)
- **EU:** A sustainable EU policy for the High North (2011) “Knowledge, responsibility, engagement” (2012)
Non-Arctic States: China

“Circumpolar nations have to understand that Arctic affairs are not only regional issues but also international ones.”

<table>
<thead>
<tr>
<th>Interests and capabilities</th>
<th>Science, environmental programs, transportation, cooperation in energy resource extraction.</th>
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<tbody>
<tr>
<td></td>
<td>Increased commercial visibility in Iceland and Greenland. Increased science presence in Norway.</td>
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<tr>
<td></td>
<td>Has expressed interest in exploring the international waters around the North Pole (the so-called donut hole). Senior Chinese official stated: “The Arctic states […] must consider the relationship between the outer continental shelf and the international submarine area that is the common human heritage, to ensure a balance of coastal countries’ interests and the common interests of the international community.”</td>
</tr>
</tbody>
</table>
### Non-Arctic States: China

<table>
<thead>
<tr>
<th>Capabilities</th>
<th>The world’s largest non-nuclear powered icebreaker, Xuelong (Snow Dragon) has completed four scientific expeditions to the Arctic Circle and is en route through the Northern Sea Route for its fifth expedition. China’s second icebreaker is planned to be ready for use in 2014.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science</td>
<td>Since 2004 China has a scientific research station – Yellow River – at Ny-Ålesund, Norway. The station collects environmental, oceanic, and scientific data for research on climate change.</td>
</tr>
<tr>
<td>Arctic Council</td>
<td>China is an ‘ad hoc’ observer but seeks permanent observer status in the Arctic Council. Norway and Canada are opposed.</td>
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</table>
Non-Arctic States: Asia

<table>
<thead>
<tr>
<th>Japan</th>
<th>Interested in: energy development, shipping, environmental research, oil and gas resources</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>In September 2012 will launch a micro satellite to monitor Arctic Ocean ice for purposes of guiding ships through the area in summer.</td>
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<tr>
<td></td>
<td>DOE has launched a new joint research effort with Japan aimed at producing more gas from methane hydrates in Alaska’s North Slope.</td>
</tr>
<tr>
<td></td>
<td>Has two patrol boats with icebreaking capacities – Souya and Teshio; icebreaker Shirase II is used for Antarctic expeditions</td>
</tr>
<tr>
<td></td>
<td>Since 1990 has a research station at Ny-Ålesund, Norway; Arctic research institutions: National Institute of Polar Research, Japan Aerospace Exploration Agency (sea-ice monitoring)</td>
</tr>
<tr>
<td>Non-Arctic States: Asia</td>
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<td>------------------------</td>
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<tr>
<td><strong>South Korea</strong></td>
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<tr>
<td>Interested in: resources reserves, shipping lanes, shipbuilding and engineering</td>
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<tr>
<td>In 2011 Korea Gas Corp. acquired a 20% stake in a natural gas field from Canada-based MGM Energy</td>
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<tr>
<td>Since 2010 owns an ice-breaker Araon</td>
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</tr>
<tr>
<td>Since 2002 has a research station at Ny-Ålesund – Arctic Dasan Station</td>
<td></td>
</tr>
<tr>
<td>In 2004 established Korea Polar Research Institute</td>
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</tbody>
</table>
### Non-Arctic States: Asia

<table>
<thead>
<tr>
<th>Singapore</th>
<th>Interested in: shipping routes, shipbuilding</th>
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<tbody>
<tr>
<td></td>
<td>Samsung Heavy Industries is a leading producer of icebreaking oil tankers for Arctic shipping.</td>
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<tr>
<td></td>
<td>Keppel Offshore &amp; Marine secured a $260 million deal to build two ice-breaker vessels for Russian oil company Lukoil in July 2006 as well as signed an agreement with Lukoil to cooperate on building new platforms and delivered a string of other specialized ships.</td>
</tr>
</tbody>
</table>

All three countries have applied to be permanent Arctic Council observers.
Arctic Council

• The most prominent and visible Arctic institutional actor
• Primary function of international cooperation in the areas of environmental protection and sustainable development
• Not permitted to discuss issues related to security
• A milestone: Signing of a legally binding international search and rescue (SAR) agreement by the eight member states of the Arctic Council in May 2011;
• Currently working on an international oil spill response agreement.
• Permanent Secretary in Trømso, Norway
Countries seeking Arctic Council permanent observer status

- China
- South Korea
- Japan
- Singapore
- Italy
- the European Union
Lays out a set of rules regarding how to divide disputed territory and resolve possible tensions.

Represents the only path for Arctic coastal states to submit scientific claims to extend their outer continental shelf.

Provides a clear framework for effectively confronting growing difficulties pertaining to freedom of navigation in the Arctic region.

However, unable to address any security related issue due to its charter provisions.

The U.S. is the only Arctic state that has yet to ratify the treaty.
Scenario: Cooperative Environment

- Ongoing cooperation is strong within various international and bilateral frameworks. International organizations such as the Arctic Council remain primary vehicle for cooperation.
- U.S. joins Law of the Sea Convention
- Joint military exercises, contingency planning and coordination occur regularly
- Joint procurement of assets to facilitate Arctic operations
- International waters remain open
- Border disputes continue to be resolved
- Economic development is open to multinational investment and transparency
- The Arctic remains a low-conflict territory.
Scenario: Less Cooperative Environment

- Multinational cooperation is limited and mostly based on bilateral agreements. The role of the Arctic Council and other multinational organizations diminishes. Cooperation is largely focused on maximizing national economic benefits.
- US remains outside of UNCLOS
- Russia becomes more aggressive in its claims to extend its outer continental shelf, particularly for the Lomonosov Ridge
- China continues to purchase strategic assets in the Arctic and tests its ability to ship through the Northern Sea Route to international waters.
- Increase in bilateral military exercises; national inspection of fishing and shipping vessels
Scenario: Contentious Environment

- Cooperation disintegrates; rivalry among the Arctic states prevails. Countries compete for economic resources and militarize their Arctic zones.
- Unilateral declarations of extended continental shelf occur. Naval vessels from other Arctic states contest claims.
- Russia increasingly tests air sovereignty of Arctic coastal states. Increases nuclear submarine activity in the North Atlantic. FSB becomes more hostile in North Pacific.
- An outbreak of armed conflict in the region is more likely.
Additional Information

• The complete CSIS report “U.S. Strategic Interests in the Arctic” can be found at: 

• The complete CSIS report “A New Security Architecture for the Arctic” can be found at: 

• For more information about the CSIS Europe Program, please visit: 
  http://csis.org/program/europe-program