

# U.S. Strategic Interests in the Arctic

An Assessment of Current Challenges and  
New Opportunities for Cooperation

A Report of the CSIS Europe Program

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# U.S. STRATEGIC INTERESTS IN THE ARCTIC

## AN ASSESSMENT OF CURRENT CHALLENGES AND NEW OPPORTUNITIES FOR COOPERATION

### Introduction

*“Only when the ice breaks will you truly know who is your friend and who is your enemy.”—Inuit proverb*

During the height of the Cold War, the Arctic region was considered a geostrategic and geopolitical playground for the United States and the Soviet Union, as strategic bombers and nuclear submarines crossed over and raced below the polar cap. Following the dissolution of the Soviet Union, the Arctic region significantly diminished in strategic importance to the United States. Twenty years later, senior U.S. military and diplomatic officials have turned their attention once again to the Arctic region but in a far different way than during the Cold War.

The effects of climate change have launched the Arctic Circle to the forefront of geopolitical calculations, potentially transforming the region into a commercial hub fraught both with environmental concerns and complex challenges that have direct implications for U.S. national security. According to the U.S. Department of Defense’s 2010 Quadrennial Defense Review, climate change acts as an “instability accelerant”<sup>1</sup> that will play a significant role in “shaping the future security environment.”<sup>2</sup> The melting of the northern polar ice has dramatically altered this once static geographic and oceanic region and is responsible for the new-found profitability and geostrategic relevance of the region. Access to oil, gas, minerals, fish, and transportation routes, formerly locked in by thick ice, are for the first time becoming accessible and viable sources of profit.

The Arctic Circle has the most volatile climate on Earth. The polar ice cap today is 25 percent smaller than it was in 1978, and in the summer of 2007 alone 1 million *more* square miles of ice beyond the average melted, uncovering a new area of open water six times the size of California. The extent of summer ice in the Arctic Ocean has been decreasing at a rate of about 8 percent per decade.<sup>3</sup> In addition to this reduction in area, sea ice thickness has decreased by approximately 40 percent over the most recent several decades<sup>4</sup> leading Arctic experts to fear that the Arctic is approaching a tipping point past which the melting sea ice can never recover. An observation station in Greenland reported an 11 degree Fahrenheit increase in average winter temperature between 1991 and 2003, with the rate expected to accelerate in the coming decade. The more the ice melts,

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1. *Quadrennial Defense Review Report* (Washington, D.C.: U.S. Department of Defense, February 2010), p. 85.

2. *Ibid.*, p. 84.

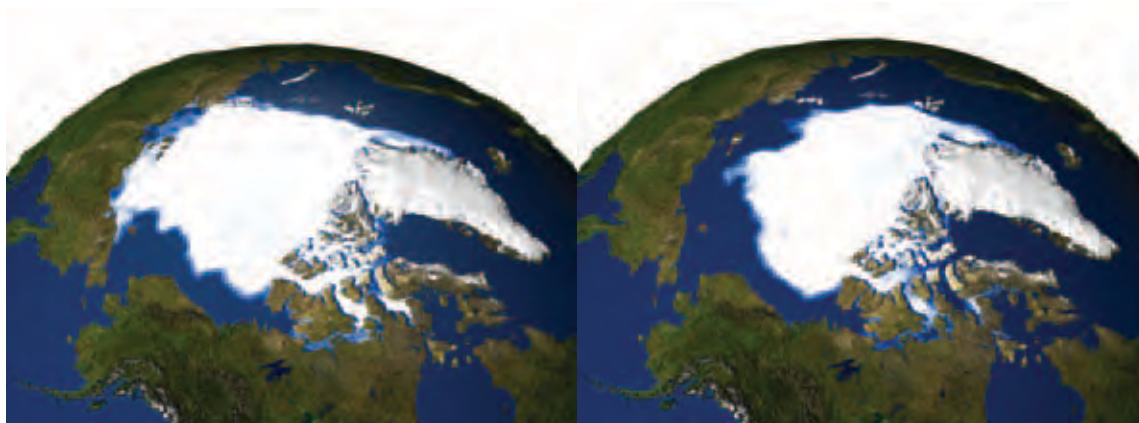
3. Richard Black, “Earth—melting in the heat?” BBC News, May 18, 2007, <http://news.bbc.co.uk/2/hi/science/nature/4315968.stm#arctic>; and “Oscilloscope,” *Economist.com*, January 11, 2010, [http://www.economist.com/world/international/displaystory.cfm?story\\_id=15262021](http://www.economist.com/world/international/displaystory.cfm?story_id=15262021).

4. William H. Chapman, “Arctic Climate Change: Recent and Projected,” *Swords and Ploughshares: Global Security, Climate Change, and the Arctic XVII*, no. 3 (Fall 2009): 8.

the faster the Arctic warms due to increased exposure of the dark ocean, which absorbs additional sunlight during the long summer days, warming the ocean surface and the air above it. The resulting increase in ocean and air temperatures will melt even more sea ice creating a “positive feedback loop...one of the primary driving factors for enhanced Arctic warming in an environment with increased greenhouse gas concentrations.”<sup>5</sup> As a result, the Arctic is the fastest-warming region on earth and is on pace to be nearly sea ice free in summertime within 30 years but as early as 2013.<sup>6</sup>

Shrinking ice caps, melting permafrost, and technological advances enable greater access to the region’s abundant oil and gas reserves, which include as much as one-fifth of the undiscovered petroleum on the planet. With longer ice-free periods now available to explore for hydrocarbons, a new scramble for oil and gas could occur especially if oil prices recover to levels above \$100 per barrel. In July 2008, the U.S. Geological Survey (USGS) estimated that the Arctic comprises 30 percent of the world’s remaining natural gas resources, or 44 billion barrels, and 13 percent of untapped oil supplies, or 90 billion barrels. Nearly all (84 percent) of the oil and gas is expected to occur offshore, and most of the projected reserves are located in waters less than 500 meters deep and will likely fall within the uncontested jurisdiction of one or another Arctic coastal state. “The extensive Arctic continental shelves may constitute the geographically largest unexplored prospective area for petroleum remaining on Earth.”<sup>7</sup> The Arctic already accounts for one-tenth of global conventional petroleum reserves, and the projections of the latest USGS study did not even address the potential for developing energy sources such as oil shale, gas hydrates, and coal-bed

## Figure 1. Climate Change



Arctic Sea Ice Concentration, 1979, NASA Image

Arctic Sea Ice Concentration, 2005, NASA Image

Summer sea ice coverage and sea ice thickness in the Arctic have decreased by approximately 40 percent over the most recent several decades. Source: NASA.

5. Ibid., p. 9.

6. Jonathan Amos, “Arctic summers ice-free ‘by 2013,’” BBC News, December 12, 2007, <http://news.bbc.co.uk/2/hi/7139797.stm>.

7. “Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle,” USGS Fact Sheet 2008-3049, U.S. Geological Survey, Denver, Colo., 2008, <http://pubs.usgs.gov/fs/2008/3049/fs2008-3049.pdf>.

methane, all of which could be present. But with it comes the risk of increased pollution, possible spills from oil and gas, and the threat of contaminating water sources during the extraction process.

With greater accessibility to the Arctic region and its abundant resources come both new opportunities for multilateral cooperation and the potential for regional competition and dispute, particularly conflicting territorial claims and managing maritime resources. Protracted disagreement among the Arctic littoral states could cause individual Arctic nations to become increasingly assertive in their resource and territorial claims, which has the potential to lead to the militarization of the Arctic. Although this scenario would appear to be unlikely, it is critical to articulate U.S. strategic interests in the Arctic region and develop a plan of action to ensure U.S. leadership in this evolving region to both anticipate challenges and offer multilateral and transparent resolution to these challenges. This report will identify the most pressing U.S. interests in the Arctic region; describe the United States' current policy and engagement in the Arctic region; analyze the current Arctic institutional construct and its relevance to future challenges; assess the diplomatic and security postures of the other Arctic littoral states; and finally, provide both short- and long-term recommendations for future U.S. policy in the Arctic.

## Arctic Assets

*“We need to be in the game, at the table, talking about fisheries management, mineral extraction, [and] freedom of navigation.”*—Admiral James D. Watkins, Retired Chief of Naval Operations, Chairman of the U.S. Commission on Ocean Policy

The Arctic region covers more than 30 million square kilometers and equals one-sixth of the world's landmass. The “Arctic Five” are the five states with territorial borders in the Arctic, which include Canada, Denmark (via Greenland), Norway (via Svalbard), Russia, and the United States. Although possessing no direct borders on the Arctic, Sweden, Finland, and Iceland are usually also considered Arctic states and take part in the Arctic Council, an intergovernmental forum for Arctic governments and peoples.<sup>8</sup>

Despite having lost 18 percent of its population between 1989 and 2002, the Russian Arctic still contains 80 percent of the 4 million people who inhabit the Arctic region. Northern Canada, often referred to as the Canadian Arctic Archipelago, forms the world's largest high-arctic land area,<sup>9</sup> covering about 550,000 square miles.<sup>10</sup> Denmark, via Greenland, has the nearest coastline to the North Pole and has competing territorial claims with Russia and Canada over the sovereignty of the Lomonosov Ridge, an underwater mountain chain crossing through the geographic North

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8. The Arctic Council is a high-level intergovernmental forum to provide a means for promoting cooperation, coordination, and interaction among the Arctic States, with the involvement of the Arctic indigenous communities and other Arctic inhabitants on common Arctic issues, in particular issues of sustainable development and environmental protection in the Arctic. For more information please visit the Arctic Council's homepage at [http://arctic-council.org/section/the\\_arctic\\_council](http://arctic-council.org/section/the_arctic_council).

9. “Arctic Archipelago,” *The Canadian Encyclopedia* (Toronto: Historical Dominion Institute, 2010), <http://www.thecanadianencyclopedia.com/index.cfm?PgNm=TCE&Params=a1ARTA0000292>.

10. “Arctic Archipelago,” *Encyclopædia Britannica* (Chicago: Britannica Online, 2010), <http://www.britannica.com/EBchecked/topic/33181/Arctic-Archipelago>.



## Map 1. Arctic Region



Source: U.S. State Department.

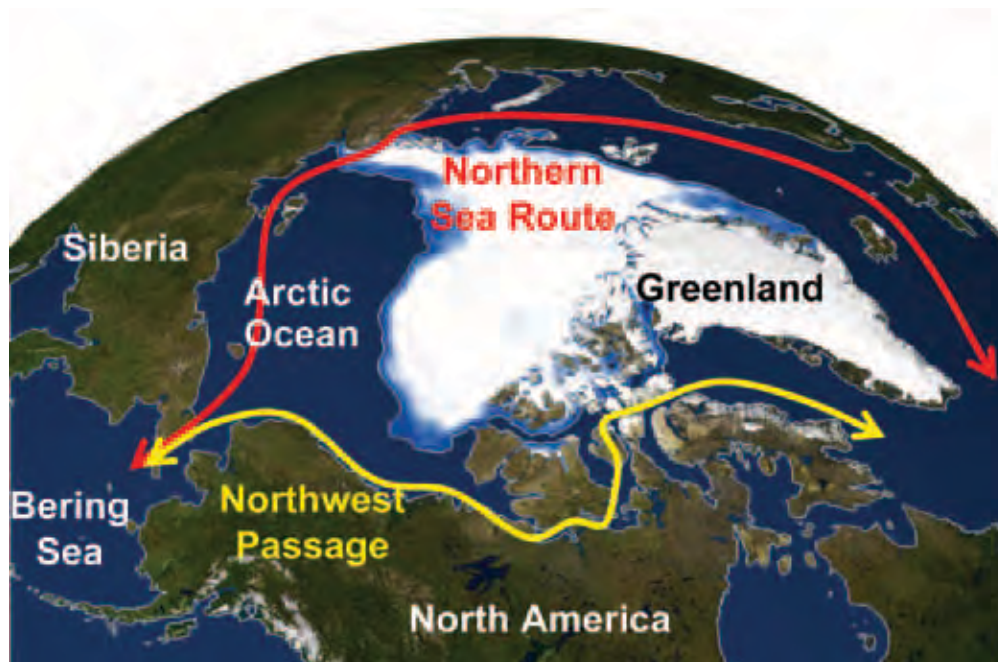
Pole. While the five Arctic states are limited to an Exclusive Economic Zone of 200 nautical miles from their coasts, the UN Convention on the Law of the Sea (UNCLOS) allows them to extend their economic zone if they can prove that the Arctic seafloor's underwater ridges are a geological extension of the country's own continental shelf. Proving rights to the Lomonosov Ridge would grant that nation exclusive access to its potentially vast stores of oil and natural gas. The Lomonosov Ridge dispute represents but one of the many debates raging in the Arctic over sovereign territory and the limits of extended continental shelves, ranging from the United States and Canada in the Beaufort Sea to Russia and Norway in the Barents Sea. The result has been substantial investments in domestic scientific research programs and technology, as a national priority, to facilitate scientific studies that substantiate territorial claims.

In addition to its vast hydrocarbon deposits, the Arctic region is also rich in organic (timber and fish) and inorganic (mineral) natural resources, which could prove to be a significant source of wealth and trade. The northern regions have an abundance of mineral resources and fish stocks. Experts estimate that Alaskan coal comprises up to 10 percent of the planet's remaining reserves,<sup>11</sup> and the Arctic Circle contains significant deposits of chromium, cobalt, copper, gold, iron, lead, magnesium, manganese, nickel, platinum, silver, tin, titanium, tungsten, and zinc. Diamond mines

11. Roman Flores, Gary Stricker, and Scott Kinney, "Alaska Coal Geology, Resources, and Coalbed Methane Potential," DDS-77, U.S. Geological Survey, Denver, Colo., 2005.

already feed thriving industries in Siberia and in Canada's Northwest Territories, and the thick forests of the High North have already proven to be commercially valuable (Russia has the world's largest forest stocks, while Canada is the world's largest net exporter of timber products). The High North's fisheries are among the best stocked on the planet, with 10 percent of world's white fish catch already coming from the Arctic Ocean. The Bering Sea supplies a third of Russia's and a half of the United States' total annual catch, while fisheries in the Barents Sea are Norway's second-largest earner of foreign exchange. As ice melts and waters warm, fish will move even farther northward, making management of fisheries a potentially contentious issue among Arctic nation states.

## Map 2. Northwest Passage



Source: *The U.S. Navy's Arctic Roadmap*, presentation to the Rule of Law Committee for the Oceans, February 5, 2010.

Arguably the most important geographic features of the High North, due to their geostrategic implications, are the Northwest Passage and Northeast Passage.<sup>12</sup>

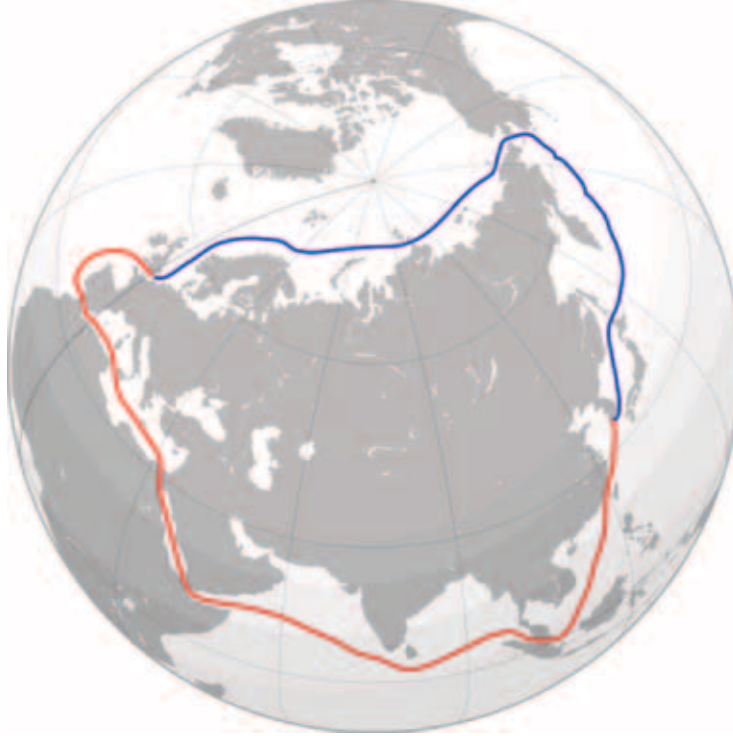
These northern sea routes connect the Atlantic and Pacific Oceans, the Northwest Passage via the Canadian Arctic Archipelago, and the Northeast Passage along the Russian Arctic coast from the Barents Sea along Siberia. In the past, these routes have been completely impassable due to thick year-round sea ice, but global warming has had significant impact on the navigability of the Arctic. In 2005, the Northeast Passage opened up along the Eurasian border for the first time in recorded human history and the famous Northwest Passage along Canada opened up in 2007<sup>13</sup> to reveal new shipping lanes of unprecedented potential. These new sea lanes will substantially

12. The Northeast Passage is also commonly referred to as the Northern Sea Route, but for the purposes of this report, the term Northeast Passage will be used.

13. Abraham M. Denmark and James Mulvenon, eds., "Contested Commons: The Future of American Power in a Multipolar World," Center for a New American Security, Washington, D.C., p. 66.

### Map 3. Northeast Passage

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The Northeast Passage along the coast of Russia offers a significant shortcut between East Asia and Europe, as compared with the usual route through the Straits of Hormuz and the Suez Canal. Source: wikimedia.org.

reduce maritime distances for commercial shipping. Canada's disputed and once-impenetrable Northwest Passage is now virtually ice free during the summer, providing a 20 percent shorter shipping route between Europe and Asia compared to the Panama Canal. In July 2009, two German ships of Beluga Group set sail from South Korea for Rotterdam in the Netherlands, carrying 3,500 tons of construction materials.<sup>14</sup>

This was the first true commercial transit of the entire Northeast Passage or Northern Sea Route from Asia to the West, inaugurating the passage as a reliable shipping route. And it will certainly not be the last. Russia's largest shipping company, Sovcomflot, plans to sail one of its ice-classed shuttle oil tankers along the Northeast Passage during the summer of 2010 from Nenets along the north coast of Siberia to Japan.<sup>15</sup> The significantly shortened distance (sailing from Korea to the Netherlands via the Northeast Passage could shave 3,500 miles and 10 days off the traditional 12,500-mile route via the Suez Canal) creates the potential for a more lucrative commercial shipping industry. For Beluga Group, quicker trips and reduced fuel costs have saved the firm \$300,000 per ship. To seize the potential magnitude of this change, it is important to note that 80 percent of global industrial production takes place north of 30 degrees north latitude, and all of the industrial areas of Eurasia, Japan, and North America are less than 3,680 nautical miles from the North Pole.

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14. Andrew Kramer and Andrew Revkin, "Arctic Shortcut Beckons Shippers as Ice Thaws," *New York Times*, September 11, 2009, [http://www.nytimes.com/2009/09/11/science/earth/11passage.html?\\_r=1](http://www.nytimes.com/2009/09/11/science/earth/11passage.html?_r=1).

15. "First oil shipment planned for Northern Sea Route," *BarentsObserver.com*, February 25, 2010, <http://www.barentsobserver.com/first-oil-shipment-planned-for-northern-sea-route.4752806-116320.html>.

However, the disputed sovereign claims over these passages have complicated both commercial and military use of these transit corridors. Russia, for instance, requires by regulation that all vessels intending to enter the Northeast Passage give advance notice to Russian authorities and submit an application for guiding, which implies paying a fee for using the route. Navigating these treacherous waterways requires advanced icebreaker capabilities to break through the multilayer and multiyear ice, even during the summer months. The Arctic five (or A-5), in addition to China, Finland, Germany, Japan, and Sweden, maintain icebreaker fleets at varying levels of modernity and capability. But before the Northwest and Northeast Passages can be used extensively, the international community must address these territorial disputes and environmental concerns over increased pollution, as well as determine responsibility for patrolling these shipping routes and for responding to emergencies requiring search-and-rescue capabilities and oil spill cleanup. “Who owns, controls, and manages these waterways? The answer could be of strategic interest to America’s trading partners and competitors.”<sup>16</sup> The most significant security threats involve nonstate actors, “such as drug smugglers, gunrunners, illegal immigrants and even terrorists who might take advantage of ice-free Arctic waters to move contraband or people between the Pacific and Atlantic Oceans or into North America or Europe.”<sup>17</sup> Increased commercial, tourist, and military traffic has already outpaced the development of emergency response infrastructure, such as search-and-rescue capacity, setting the stage for potentially fatal scenarios in the Arctic.

## U.S. Interests and Security Strategy in the Arctic

*“The United States has broad and fundamental national security interests in the Arctic region and is prepared to operate either independently or in conjunction with other states to safeguard these interests.”*—National Security Presidential Directive 66 and Homeland Security Presidential Directive 25, January 9, 2009

The United States is considered an Arctic nation by way of its Alaskan coastline. Its unique position near Russia and adjacent to Canada, with access to the Bering Sea, Beaufort Sea, and Chukchi Sea, has consequently led to sustained border disputes over the sovereignty of territory and waterways. The United States disputes the maritime boundary in the Beaufort Sea between the Canadian territory of Yukon and Alaska, as well as at the Dixon Entrance, the Strait of Juan de Fuca, Machias Seal Island, and North Rock.<sup>18</sup> The 1990 Maritime Boundary Agreement in the Bering Sea has been signed but still awaits ratification by the Russian Duma to establish a clear maritime boundary. The United States maintains that the Northwest Passage and the Northeast Passage are international straits that ought to be governed by international laws of the global commons. Resolving these border disputes, particularly the U.S.-Canada dispute concerning the Northwest Passage, as well as filing claims to an extended continental shelf, are important steps to securing U.S. economic interests in the region by establishing sovereign rights over natural resources.

Climate change, which has dramatically altered the landscape of the Arctic and heightened concerns about the region’s future, provides an urgent imperative for the United States to adapt its

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16. Denmark, “Contested Commons,” p. 66.

17. Michael Byers, “Conflict or Cooperation: What Future for the Arctic,” *Swords and Ploughshares: Global Security, Climate Change, and the Arctic* XVII, no. 3 (Fall 2009): 19.

18. “United States,” *The World Factbook* (Washington, D.C.: Central Intelligence Agency, 2010), <https://www.cia.gov/library/publications/the-world-factbook/geos/us.html#Issues>.

maritime strategy and posture. The most recent U.S. maritime strategy, *A Cooperative Strategy for 21st Century Seapower*, acknowledges that developments in the region pose “potential sources of competition and conflict for access and natural resources.”<sup>19</sup> Access to vast hydrocarbon reserves and mineral deposits has increased this region’s strategic significance as a prospect for increased energy security. The United States also recognizes the necessity of balancing its economic and environmental interests in the Arctic. It prioritizes environmental protection of the Arctic through scientific exploration, environmentally sound oil and gas extraction methods, sustainable management of fisheries, and working with indigenous communities to mitigate the effects of climate change on their way of life.

The culmination of U.S. strategic thinking on the Arctic occurred late in the presidency of George W. Bush, whereby on January 9, 2009, the administration released the National Security Presidential Directive 66/Homeland Security Presidential Directive 25 (NSPD 66/HSPD 25), which established a new U.S. policy for the Arctic region. The directive addresses “soft” security issues of governance, continental shelf and boundary issues, scientific cooperation, maritime transportation, economic issues (including energy), as well as environmental protection and conservation. The traditional “hard” security interests include both national and homeland security concerns vis-à-vis the Arctic. These include the fundamental interest of the United States in “missile defense and early warning; deployment of sea and air systems for strategic sealift, strategic deterrence, maritime presence, and maritime security operations; and ensuring the freedom of navigation and oversight.”<sup>20</sup> U.S. policy relating to preventing criminal activity and terrorist attacks, as well as to improving search-and-rescue capabilities, is aimed to protect the fundamental

**The Presidential Directive outlines a strategy that requires “the United States to assert a more active and influential national presence to protect its Arctic interests and to project sea power throughout the region.”**

homeland security interests of the United States. It emphasizes the need to develop greater capacity to protect U.S. borders, increase Arctic maritime domain awareness, encourage peaceful resolution of disputes, and project a sovereign U.S. maritime presence. The Presidential Directive outlines a strategy that requires “the United States to assert a more active and influential national presence to protect its Arctic interests and to project sea power throughout the region.”<sup>21</sup>

Although at long last the United States has an interagency Arctic strategy in hand, it continues to lack needed capabilities to ensure it plays a significant role in the Arctic global commons. In October 2009, the U.S. Navy released its Navy Arctic Roadmap to begin to address this capabilities gap through its five-year strategic plan to expand fleet operations into the north and readjust its naval combat capabilities and presence. The roadmap currently calls for the development of cooperative partnerships with interagency and international Arctic stakeholders; the active and competent contribution to safety,

19. U.S. Navy and U.S. Coast Guard, *A Cooperative Strategy for 21st Century Seapower* (Washington, D.C.: U.S. Department of Defense, October 2007), p. 3, <http://www.navy.mil/maritime/MaritimeStrategy.pdf>.

20. National Security Presidential Directive 66 and Homeland Security Presidential Directive 25, January 9, 2009.

21. *Ibid.*

security, and stability in the Arctic; the acquisition of the right capability at the right cost and right time to meet combatant commander requirements; the development of an effective communications strategy to convey the positive and active role of the U.S. Navy in the Arctic; and the scientific understanding of the evolution of the region.<sup>22</sup> The roadmap pays specific attention to developing the capabilities and capacity to conduct the following missions:

- Maritime Security
- Search and Rescue
- Humanitarian Assistance/Disaster Response
- Defense Support of Civil Authorities
- Maritime Domain Awareness
- Strategic Sealift by the Naval Fleet Auxiliary Force
- Strategic Deterrence
- Ballistic Missile Defense<sup>23</sup>

On the most fundamental level, the United States must fill the gaps in its military capacity if it plans to execute missions in support of its stated national Arctic policy. Operation and navigation in the Arctic Ocean require double-hulled surface vessels capable of breaking through the extremely thick Arctic ice. Today, the U.S. Coast Guard has only three icebreakers capable of supporting U.S. national mission needs. The USCG *Healy* (commissioned in 2000), the United States' only icebreaker operating full time in the region, employs diesel technology and is primarily designed for scientific research. The USCG *Polar Sea* (commissioned in 1978) and *Polar Star* (commissioned in 1976), though also diesel run, are able to ram through 21 feet of ice but have required extensive motor repairs and are quickly aging. The *Polar Star* has been in caretaker status since 2006 but is currently being retrofitted in Seattle with the intention of being reactivated by 2013 to extend its service life by 7 to 10 years.<sup>24</sup> A more robust operational icebreaker fleet is essential for supporting U.S. military operations, maintaining U.S. presence, and preserving U.S. economic and other interests throughout the region.

By comparison, Russia's seven newest icebreakers have multi-mission capabilities and are fueled by nuclear reactors capable of breaking through ice twice as thick as its diesel competitors. Russia has 18 icebreakers in its military fleet, including the largest and most powerful icebreaker in the world. Interestingly, Russia's most modern icebreaker fleet vessels, capable of cutting through 1.5 meters of Arctic ice, are the property of a private-sector giant. Norilsk Nickel, Russia's largest mining and metallurgy company, maintains complete independence from Russian military nuclear-powered icebreakers thanks to its five brand new Arctic vessels, costing the company €70 million to €80 million per vessel. As the world's biggest producer of nickel, Norilsk Nickel conducts regular shipping operations from the port of Dudinka near the company's key

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22. Navy Task Force Climate Change, "U.S. Navy Arctic Roadmap," U.S. Navy, Washington, D.C., October 2009, p. 3.

23. *Ibid.*, p. 8.

24. Commander Lisa Mack, PowerPoint presentation, "U.S. Coast Guard Polar Icebreaker Operations," June 10, 2009.



Norilsk Nickel's newest Arctic vessel, capable of navigating Arctic routes without icebreaker assistance, was built by Aker Yards. Source: Aker Yards, news release, [www.akeryards.com](http://www.akeryards.com).

production areas to Murmansk Oblast where processing facilities are located.<sup>25</sup> Previously, Norilsk Nickel had purchased icebreaker services from the Murmansk Shipping company, which managed the Russian fleet of state-owned nuclear-powered icebreakers.

The Navy Arctic Roadmap also encourages the United States to strengthen ballistic and cruise-missile defensive systems, asserting that the navy needs to reestablish itself in anti-submarine warfare and

in littoral dominance in order to assure sea control. In addition to the planned naval rearmament, the United States plans to station in Anchorage, Alaska, 36 F-22 Raptor stealth fighter jets, which comprise 20 percent of its F-22 fleet. Clearly, funding these investments will be very costly and will require strong congressional policy buy-in and long-term support.

Building U.S. military capacity in the Arctic reaches beyond pure acquisition and procurement, however. The U.S. Navy and U.S. Coast Guard have recognized certain capability gaps that must be filled, chief among them search and rescue. The sudden and substantial increase in commercial shipping, marine tourism, and large passenger vessels in the Arctic poses significant challenges to the existing search-and-rescue infrastructure. Given the location of current U.S. Coast Guard operating bases, it could take coast guard aircraft several hours, and coast guard cutters a few or several days, to reach a ship in distress in Arctic waters. To enable specialized training for enhanced search-and-rescue capabilities, the U.S. Coast Guard would need to improve or create new operating bases in the region; procure additional Arctic-capable aircraft, cutters, and rescue boats; and add systems to improve Arctic maritime communications, navigation, and domain awareness.

A vigorous U.S. strategy should also embrace enhanced forms of cooperation with navies and coast guards of other Arctic countries. The Arctic Marine Shipping Assessment 2009 Report recommended the development of “a comprehensive multinational Arctic Search and Rescue (SAR) instrument, including aeronautical and maritime SAR among the eight Arctic nations.”<sup>26</sup> A multi-lateral SAR agreement for the entire Arctic region would facilitate the most effective use of limited

25. “Icebreaking independent for Norilsk Nickel,” BarentsObserver.com, August 7, 2008, <http://www.barentsobserver.com/icebreaking-independence-for-norilsk-nickel.4500262-16149.html>.

26. Arctic Council, “Arctic Marine Shipping Assessment 2009 Report,” Arctic Council, Tromsø, Norway, p. 6.

SAR resources and would improve SAR response “by serving as the framework within which to conduct joint exercises and training; share information, lessons learned and best practices; and identify and improve mechanisms for mutual cooperation, coordination and support in search and rescue and emergency response.”<sup>27</sup> Joint training between U.S. military services and in cooperation with the militaries of other Arctic states would greatly enhance interoperability and effectiveness. The search-and-rescue joint exercise between the Canadian Coast Guard and Danish Navy as part of Northern Deployment in 2009 provides a successful model of beneficial cooperative efforts with international partners.



U.S. Coast Guard Cutter Polar Sea motors through Chiniak Bay off Kodiak Island on its way to make a port call in Kodiak, following a two-month science cruise in the Bering Sea, Apr. 6, 2010. Source: U.S. Coast Guard photo by Petty Officer 1st Class Sara Francis.

In addition to filling the military’s capability gaps, the United States must also resolve a leadership gap, perhaps more accurately described as a leadership “overlap.” Three U.S. unified combatant commands—European Command (EUCOM), Northern Command (NORTHCOM), and Pacific Command (PACOM)—converge in the Arctic, and the “seam” that separates the commands’ respective areas of responsibility cleaves the Arctic into chunks. As a result, no one combatant command has a clear mandate to deal with the Arctic holistically. Although the U.S. Navy is developing a recommended position on combatant command responsibilities, some have suggested the creation of an Arctic Component Command (ARCOM) to manage the multifaceted challenges and to spearhead an effective U.S. military presence in the region. Similarly, vexing jurisdictional issues, with the U.S. Navy, U.S. Coast Guard, Department of the Interior, and Department of Transportation all possessing legitimate but conflicting claims to Arctic management, must be resolved if the United States is to develop a clear and effective strategy in the High North.

Unfortunately, to date there is no clear enforceable game plan or implementing mechanism to emerge from these various roadmaps and strategies. The United States has made important strides in institutionalizing collaboration with its northern neighbor, Canada, through the successful establishment and activities of North American Aerospace Defense Command (NORAD). NORAD is a binational U.S.-Canada command charged with aerospace and maritime warning for North America. This joint command structure, with shared maritime surveillance, represents a unique area of military cooperation that has greatly enhanced the United States’ efficacy and efficiency with a powerful and positive effect. In February 2009, when two Russian bombers performed a

27. Ibid., p. 174.





North American Aerospace Defense Command (NORAD) launched three pairs of fighters Sept. 28, 2006, from the command's Alaskan NORAD Region and the Canadian NORAD Region in response to Russian aircraft that penetrated North America's Air Defense Identification Zone. Source: U.S. NORTHCOM.

military exercise that came too close to the Aleutian Islands, causing public expressions of concern from Canada's defense minister, NORAD helped diffuse the situation by facilitating open communication. A NORAD representative was included for the first time at the U.S.-Russia Prevention of Incidents over the High Seas staff talks in 2009. The representation is expected to continue this year "to reduce the ambiguity of Russian military flights near our borders and promote safe flight operations within the international airspace."<sup>28</sup>

NORAD views its operations in Alaska as an avenue for "positive interaction with Russian military counterparts during the reset of relationships between our nations."<sup>29</sup> Many other opportunities for international cooperation have yet to be tapped, ranging from marine safety and scientific research to search-and-rescue and crisis management. No one Arctic nation has the capacity to cover the whole geographic area to respond to soft and hard security challenges. International cooperation in the Arctic arena "has strong confidence-building potential, still in shortage in the region."<sup>30</sup> The 2010 *Quadrennial Defense Review Report* states "we will seek opportunities to work with Moscow on emerging issues, such as the future of the Arctic" and that the Department of Defense "will also enhance defense relationships and continue to work with Canada in the context of regional security [and] increased interaction in the Arctic."<sup>31</sup>

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28. Gail Braymen, "Renuart Assumes Command of NORTHCOM, NORAD," U.S. Department of Defense, Washington, D.C., March 23, 2007, <http://www.defense.gov/news/newsarticle.aspx?id=3257>.

29. Ibid.

30. Katarzyna Zysk, "Russia's Arctic Strategy: Ambitions and Constraints," *Joint Force Quarterly* 57 (April 2010).

31. U.S. Department of Defense, *Quadrennial Defense Review Report: February 2010* (Washington, D.C.: U.S. Department of Defense, February 2010), p. 62.

## Enhanced Multilateral Cooperation within an International Governance Structure

*“Whether on the sea, in the air, in space, or cyberspace, the global commons represent a realm where we must cooperate—where we must adhere to the rule of law and the other mechanisms that have helped maintain regional peace.”*<sup>32</sup>—Robert Gates, U.S. Secretary of Defense

There are many areas in which the United States can work cooperatively with the other Arctic littoral nations to achieve shared interests and build confidence in collaborative approaches to resolving conflict. The Arctic Council, a high-level intergovernmental forum of the eight Arctic countries—Canada, Denmark (representing Greenland and the Faroe Islands), Finland, Iceland, Norway, the Russian Federation, Sweden, and the United States—provides the most potential for a comprehensive resolution of environmental and governance issues in the Arctic. Convening twice a year since 1996, the body consists not only of representatives from its member countries but also from six indigenous organizations as “permanent participants” of the council. According to the NSPD 66/HSPD 25, the Arctic Council has “produced positive results for the United States by working within its limited mandate of environmental protection and sustainable development.”<sup>33</sup> However, the Arctic Council’s influence and impact are limited by its inability to address military matters. While it has achieved considerable success in producing scientific assessments and generating policy-relevant knowledge about the Arctic, it lacks both the regulatory authority and the mandate to enact or enforce cooperative security-driven initiatives.

The signing of the historic Ilulissat Declaration in May 2008 by the five Arctic nations affirmed their aim of keeping the Arctic as a region of peace and cooperation and of settling overlapping territorial claims. Moreover, the declaration also underscored that the five littoral states will be able to sufficiently address outstanding issues related to the Arctic region as no additional institutional governance or enhanced architecture is required. The Ilulissat Declaration may have either intentionally or unintentionally created tension between the Arctic 5 and the Arctic Council, causing speculation as to whether the Arctic Council will dominate as the lead governing institution of Arctic issues or if the



Five representatives of the Arctic Powers, plus Hans Enoksen, then premier of Greenland, met in Ilulissat, Greenland, May 28–29, 2008. Source: Government of Denmark.

32. Robert Gates, U.S. secretary of defense, remarks delivered at the 8th IISS Asia Security Summit, the Shangra-La Dialogue, Singapore, May 30, 2009.

33. NSPD 66/HSPD 25, Section III, C.

Arctic 5 will prevail. This tension played out most recently in Ottawa, Canada, on March 29, 2010, when Secretary of State Hillary Clinton rebuked Canada for increasing tensions by excluding Sweden, Finland, Iceland, and representation from indigenous communities at a meeting of the Arctic 5. “Significant international discussions on Arctic issues should include those who have legitimate interests in the region. And I hope the Arctic will always showcase our ability to work together, not create new divisions.”<sup>34</sup> But, though the United States champions the Arctic Council, it is also wary of expanding the council’s authority, stating that “it is the position of the United States that the Arctic Council should remain a high-level forum devoted to issues within its current mandate and not be transformed into a formal international organization, particularly one with assessed contributions.”<sup>35</sup>

Highlighting the Arctic’s growing global importance, a number of countries with no geographical links to the Arctic region but with important commercial and economic interests, such as China, South Korea, and the European Union, want to have a voice in future Arctic deliberations. France, Germany, Poland, Spain, the Netherlands, and the United Kingdom have been granted “permanent observer” status on the Arctic Council, and China is considered an “ad hoc observer.” Only Arctic Council member states have voting rights, and therefore “ad hoc observer” status does not differ from “permanent observer” with regard to the influence on the decision-making process in ministerial meetings. However, “ad hoc observer” status requires that nation to apply to be admitted to each Arctic Council meeting. The European Union’s application to become a “permanent observer” was blocked in 2009 by Arctic Council member Canada in response to the European Union’s ban on the importation of seal products. This example illustrates the challenges of relying on the current structure of the Arctic Council for balanced and objective rulings, which often fall victim to paralyzing squabbles and the partial leveraging of national interests. On the other hand, the Arctic Five excludes nations and indigenous peoples with legitimate interests in the region, compromising its international credibility as a comprehensive governing arrangement. As rifts among international governance institutions continue to emerge, to the detriment of regional policy cohesiveness, the U.S. government must clarify how it wishes to primarily proceed with its multilateral Arctic engagement, either principally through the Arctic 5 ad hoc process or through the more institutionalized Arctic Council’s effort.

Another important multilateral organization is the International Maritime Organization (IMO), which was established in 1948 to develop and maintain a comprehensive regulatory framework for shipping. It spent years negotiating an Arctic Code for shipping, but the document was ultimately downgraded to a set of voluntary Guidelines for Ships Operating in Arctic Ice-Covered Waters before it was adopted in 2002. The Arctic Marine Shipping Assessment 2009 Report, commissioned by the Arctic Council, urges Arctic nations to adopt the mandatory application of IMO guidelines. Its conventions provide important standards for ocean carriers in terms of safety, pollution prevention, and security.

The most critical instrument to Arctic stability is the 1982 United Nations Convention on the Law of the Sea (UNCLOS), an international agreement that defines the rights and responsibilities of nations in their use of the world’s oceans, guiding legal cooperation as well as various environmental agreements. UNCLOS has been called “a constitution for the oceans.” The convention defines various levels of maritime sovereignty and under Article 76 enables nations to assert juris-

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34. Mike Blanchfield, “Icy Clinton leaves Arctic summit, says ‘legitimate interests’ frozen out,” Canadian Press, March 29, 2010.

35. NSPD 66/HSPD 25, Section III, C.

dictional claims over extended continental shelves. So far, 156 countries and the European Union have ratified the treaty. Though the United States helped develop and has technically signed the treaty, the U.S. Congress has yet to ratify it. Even though the Senate Foreign Relations Committee approved the treaty in 2007, the full Senate failed to vote on the measure.<sup>36</sup>

Previous U.S. administrations have endorsed ratification of UNCLOS (NSPD 66/HSPD 25) and have urged the Senate to “act favorably on U.S. accession to the U.N. Convention on the Law of the Sea promptly, to protect and advance U.S. interests.”<sup>37</sup>

The Navy Arctic Roadmap is predicated on the requirement of UNCLOS ratification to provide a legal governance framework. And the 2010 Quadrennial Defense Review asserts “to support cooperative engagement in the Arctic, DoD strongly supports accession to the United Nations Convention on the Law of the Seas.”<sup>38</sup> As the maritime global commons grow increasingly important to the security and economic interests of the United States, ratification of UNCLOS is a strategic imperative if the United States wants to gain equal access and protection to the resource-rich Arctic and secure its rights for commercial and military vessels at sea. Although it is currently gathering data to support possible future claims, the United States is unable to make territorial claims to Arctic waters or to resolve its long-standing dispute with Canada over the status of the Northwest Passage without representation in the international bodies of arbitration established by the UNCLOS treaty. At this critical convergence of changes and new opportunities in the Arctic, “America has abandoned its seat at the table and forfeited the opportunity to shape international policy.”<sup>39</sup>

**At this critical convergence of changes and new opportunities in the High North, “America has abandoned its seat at the table and forfeited the opportunity to shape international policy.”**

## The Arctic Five Dynamic

Warmer temperatures and melting Arctic ice are accelerating access to valuable resources and transportation routes, bringing to the forefront prominent security and economic interests of the five Arctic nations, as well as of the broader international community. This section will explore the security postures of Canada, Denmark, Norway, and Russia as they relate to protecting their interests in the Arctic region. Each country faces a common set of challenges, from mitigating the effects of climate change to asserting their sovereign prerogative over border disputes, and each seeks to protect a common set of interests of varying degrees of priority, from security and economic issues to environmental concerns. But each of these four nations approaches the formulation of their Arctic policy from the vantage point of a unique historical context or current political dynamic.

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36. Lauren Morello, “U.S. Pushes for Law of the Sea Ratification as New Arctic Mapping Project Begins,” *New York Times*, July 29, 2009.

37. NSPD 66/HSPD 25, Section III, C.

38. U.S. Department of Defense, *Quadrennial Defense Review Report: February 2010*, p. 86.

39. Denmark, “Contested Commons,” p. 70.

## Canada

“Canada is an Arctic power, and we will continue to exercise our sovereignty.”<sup>40</sup>—Lawrence Cannon, Canadian Foreign Minister

Canada is ardently proud of its Arctic identity and fiercely protective of its Arctic sovereignty, as it views the Arctic “an integral part of our national identity.”<sup>41</sup> Canada’s Arctic includes a vast marine region with borders shared with other countries, which both complicates Canadian territorial claims and has led to ongoing disputes over sovereign territory and maritime borders. Canada and the United States disagree over the maritime boundary between Alaska and Yukon, and the United States disputes Canadian ownership over parts of the Beaufort Sea. Currently, Canada is mapping its Arctic seabed, in support of its submission to the UN Commission on the Limits of the Continental Shelf in May 2009,<sup>42</sup> to assert its underwater rights extending as far as the North Pole, a claim that will surely conflict with one already filed by Russia.



The effects of climate change are threatening the Inuit way of life on the Canadian Arctic Archipelago.

Source: iStockphoto.com.

The importance of these claims cannot be underestimated: any country that can successfully establish a claim to these continental shelves will gain control of a vast amount of seabed resources. In December 2009, Canada’s House of Commons unanimously passed a bill to rename the country’s Arctic sea route the “Canadian Northwest Passage,” symbolically asserting authority over the disputed waterway and firmly claiming it as an internal strait. However, the United States, Russia, and the European Union all believe the passage should be considered an international waterway. The resolution of this debate over the Northwest Passage will have long-term strategic ramifications beyond the issue of patrolling and monitoring. For the United States, the point of contention is over freedom of navigation and “recognizing the Northwest Passage as

40. “Canada is an Arctic power’ Cannon says,” AFP, April 3, 2010, <http://www.google.com/hostednews/afp/article/ALeqM5h4VXRtCgMP1Cnb-l7GHDtZ2t14UA>.

41. Randy Boswell, “Canada asserts Arctic policy, sovereignty,” *National Post* (Ontario), July 26, 2009, <http://www.nationalpost.com/story.html?id=1831005>.

42. The UN Commission on the Limits of the Continental Shelf was created to facilitate the implementation of UNCLOS Article 76, which establishes that coastal states can claim control of the seabed extending beyond the traditional 200-mile limit if they can prove that the ocean floor is connected to their continental shelf. Based on sound scientific data, the commission makes recommendations to coastal states on matters related to the establishment of those limits. For more information please visit the home page of the Commission on the Limits of the Continental Shelf: [http://www.un.org/Depts/los/clcs\\_new/clcs\\_home.htm](http://www.un.org/Depts/los/clcs_new/clcs_home.htm).

an internal waterway would result in demands from Iran that the Straits of Hormuz be treated in a similar fashion.”<sup>43</sup>

The resolution of these territorial and maritime border disputes will have a direct impact on Canada’s ability to pursue its economic interests in the Arctic. The Mackenzie Gas Project, a 1,200-kilometer natural gas pipeline, has come to represent the centerpiece of Canada’s economic platform. The pipeline would ship as much as 1.2 billion cubic feet of gas per day<sup>44</sup> to southern markets from fields in the Mackenzie Delta region on the coast of the Beaufort Sea. But due to regulatory delays and financial constraints, the start-up date of the pipeline has been pushed back another four years to 2018. In the meantime, industry has developed technology to unlock huge reserves of shale gas located closer to major markets, changing the dynamics of the gas market. The Strategic Investment in Northern Economic Development Initiative calls for significant funding for economic development through projects to develop critical infrastructure needs and to provide funding for tourism, commercial fishery harbors, and geo-mapping for oil and gas deposit exploration.

While Canada recognizes the substantial economic benefit it can derive from the Arctic, it also recognizes that the changing nature of this region brings considerable new challenges to Canada’s sovereignty and security. First, to secure its economic interests, Canada has invested \$109 million, to be spent before 2014,<sup>45</sup> into research and Arctic science to substantiate seabed and extended continental shelf claims. Russia’s competing territorial claims, as well as those of the United States for that matter, are perceived by Canada to be a real and significant threat to its economic and sovereign interests. Working through international governing structures to establish Canadian land and maritime borders, Ottawa hopes to benefit from the valuable resources and profitable shipping lanes of the Arctic region.

Second, to ensure its national security, Canada is creating capacity “to exercise control over and defend Canada’s sovereignty in the Arctic.”<sup>46</sup> A temporarily ice-free Northwest Passage during the summer will expose Canada to new vulnerabilities. Increased commercial and tourist traffic may also increase illicit transportation of drugs and terrorists, requiring robust patrolling, monitoring, and emergency response capabilities. In a recent Canadian Senate Fisheries Committee report, senators urged the government to arm patrol ships with “deck weaponry capable of giving firm notice” to foreign vessels to assert Canada’s claims that the Northwest Passage is an internal waterway. This report also recommended new rules to require all ships to register their presence in northern Canadian waters.<sup>47</sup> “We’re saying that all vessels—no matter what size and what they carry—should have to report to Canadian authorities,” said Liberal senator and committee chair Bill Rompkey. “The threat is not just oil spills and not just commercial vessels moving through.

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43. John Ivison, “Arctic hot in more ways than one,” *National Post* (Ontario), February 24, 2009, <http://www.nationalpost.com/story.html?id=1321073>.

44. Jeffrey Jones, “Canadian Arctic gas pipeline faces further delay,” Reuters, March 15, 2010, <http://www.reuters.com/article/idUSN1521245520100315>.

45. Fisheries and Oceans Canada, “Canada’s Submission to the Commission on the Limits of the Continental Shelf Under the United Nations Convention on the Law of the Sea,” <http://www.dfo-mpo.gc.ca/ae-ve/evaluations/08-09/6b060-eng.htm#ch3.1>.

46. National Defence and Canadian Forces, *Canada First Defence Strategy: May 2008* (Ottawa: National Defense and Canadian Forces, May 2008), p. 8 [http://www.forces.gc.ca/site/pri/first-premier/June18\\_0910\\_CFDS\\_english\\_low-res.pdf](http://www.forces.gc.ca/site/pri/first-premier/June18_0910_CFDS_english_low-res.pdf).

47. Randy Boswell, “Arm coast guard ships in North, senators say,” *National Post* (Ontario), December 14, 2009, <http://www.nationalpost.com/news/story.html?id=2339474>.

The threat is drugs and the threat is terrorism. And we've got to counteract that."<sup>48</sup> The Canadian government has made significant commitments to acquire urgently needed equipment to prepare the Coast Guard for any threats that may arise. The government has promised to spend billions of dollars building six to eight offshore patrol vessels capable of breaking up first-year ice;<sup>49</sup> the construction of a new icebreaker, the \$720-million (US\$675-million) *John G. Diefenbaker*, which is scheduled to replace the aging *Louis St. Laurent* in 2017; a research station (location yet to be determined); a new Canadian Forces winter fighting school at Resolute Bay in the Northwest Passage; and an estimated \$100 million to build a new naval base at the existing deepwater port Nanisivik on Baffin Island. *Canada First Defence Strategy* proposes the acquisition of 10 to 12 maritime patrol aircraft to replace the Aurora fleet starting in 2020 to become part of a broader surveillance system, which will include sensors, unmanned aerial vehicles, and satellites.<sup>50</sup> But critics have argued that neither the pledged icebreaker nor the promised Arctic patrol ships have progressed much beyond the announcement phase.

Canada has already moved to bolster its military presence in the Arctic and made clear that it will act unilaterally to protect its interests. Prime Minister Stephen Harper has repeatedly noted that the first rule of Arctic sovereignty is "use it or lose it" and his government "intends to use it."<sup>51</sup> To this end, Canada has begun annual summer military exercises entitled Operation Nunavut (Inuktitut for "this land is ours") in its northern territories, which are explicitly "designed to project Canadian sovereignty in the High Arctic."<sup>52</sup> In 2008, Canada announced that it was increasing its military alertness along its northern frontier in response to what it called Russian "testing" of its boundaries with military flights along their border not seen since the Cold War. As a result, Canada has taken steps to conduct more naval patrols and establish an Arctic military training camp in the far north. Canada contends that Russian activity in the region has grown increasingly aggressive and provocative, citing the controversial Russian flag seabed planting "stunt" in 2007, "Russian Bear" test flights, the 2009 missile test firings near the North Pole, and the East Coast cruises by two nuclear submarines. Russia's behavior in the Arctic has left Canada feeling that its sovereignty, security, and national interests are being both challenged and threatened. Its response has been to increase its military presence in the region, project power and exercise control, while simultaneously pursuing improved Canada-Russia cooperation on soft security polar issues, stressing that "geological research and international law, not military clout, will ultimately resolve undersea boundary disputes in the Arctic Ocean."<sup>53</sup> Canada's dual-track strategy of diplomacy and defense has eased concerns of armed conflict and contributed to constructive engagement within the framework of international governing institutions.

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48. Ibid.

49. First year ice is typically from 1 foot to 6.6 feet thick, developing from young ice with no more than one year's growth.

50. National Defence and Canadian Forces, *Canada First Defence Strategy: May 2008*, p. 17.

51. "Harper on Arctic: 'Use it or Lose It,'" Canada.com, July 10, 2007, <http://www.canada.com/topics/news/story.html?id=7ca93d97-3b26-4dd1-8d92-8568f9b7cc2a>.

52. "Operation Nunavut Reaches Alert," CBC News, April 10, 2007, <http://www.cbc.ca/canada/north/story/2007/04/10/north-nunavut.html>.

53. Randy Boswell, "Canada, Russia play political game in Arctic: experts," *National Post* (Ontario), August 16, 2009, <http://www.nationalpost.com/m/story.html?id=1899263>.

## Denmark

“Some people say you can just as well get the divorce papers for Greenland and Denmark ready”<sup>54</sup>—Jonathan Motzfeldt, former Prime Minister of Greenland, on the result of Denmark acting unilaterally in decisions relating to Thule Airbase

Denmark is an active and committed member of the Arctic community, but its claims to the region are unique. Denmark is an Arctic littoral nation by way of Greenland, an autonomous Danish dependent territory, over which Denmark has ruled for almost 300 years. As the world’s largest island and the least densely populated country in the world, Greenland became a self-governing overseas administrative division of Denmark by “home rule” in 1979 and gained greater responsibility for internal affairs under “self rule” in June 2009. As part of this deal, Greenlanders gain a larger share of the revenues from its natural resources, which could potentially serve as a catalyst toward pursuing its formal independence from Denmark.

For Denmark, Greenland is strategically vital to its Arctic claims due to its vast potential for valuable resources and because it extends Denmark’s territorial claims farther north. As Greenlanders continue to vote in favor of greater autonomy, Denmark is presented with difficult political challenges and choices. What would be the impact on Denmark’s Arctic strategy if Greenland seeks a referendum on independence? It is unclear



Thule Air Force Base. Source: images.google.com.

what effect an “Arctic Six” would have on the region politically. Although it is unlikely to seek full independence, as its 57,000 population has neither the resources nor capabilities to establish an independent economic infrastructure, if it were to do so the timing would most likely occur in 2021—the 300th anniversary of the date that is generally accepted to mark the beginning of Danish colonial rule over Greenland—and in tandem with the discovery of viable and sustainable sources of oil and natural gas.

Denmark encourages Arctic exploration and as such it has invested significant funds into scientific research and polar exploration to fill knowledge gaps and to provide data that may form

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54. Jergen Dragsdahl, “The Danish dilemma,” *Bulletin of the Atomic Scientists* 57, no. 5 (September/October 2001): 50, <http://thebulletin.metapress.com/content/b51t56388078m332/fulltext.pdf>.



the basis of future Danish territorial claims. Although Denmark resolved its dispute with Norway in 2006 over the sea boundary between Svalbard and Greenland, competing claims with Canada over the Hans Island in the Nares Strait remain unresolved. Additionally, Denmark has launched expeditions to map the Arctic Ocean floor in an effort to provide scientific proof of its claim that the Lomonosov Ridge, an underwater mountain chain, is an extension of Greenland. Believed to contain significant resource deposits of oil and natural gas, this ridge has been hotly contested by the Russians and Canadians, both claiming it as an extension of their own continental shelf.

Denmark has also been an active political actor in the region, launching an initiative that ultimately translated into the Ilulissat Declaration, an effort designed “to commit Arctic coastal states to an orderly management of Arctic problems on the basis of existing international law.”<sup>55</sup> In its role as host of the Ilulissat conference in May 2008, intended as a high-level political event to “market Denmark as an active international actor with respect to the integration of climate change and foreign policy,”<sup>56</sup> Denmark’s primary regional focus has been on sustainable development and the security risks of climate change. However, it has now expanded its national priorities in the region to include the protection of its economic interests. The extraction of Greenland’s mineral wealth (gold and diamonds) and its energy resources would not only bring significant financial benefit to Denmark but it would also produce jobs and new earning opportunity as resource extraction infrastructure is built. According to U.S. Geological Survey’s Circum-Arctic Resource Appraisal (CARA), there could be trillions of cubic feet of gas and at least a few billion barrels of oil to be discovered along the coasts of Greenland, ranking the island as potentially 19th among the world’s 500 largest oil provinces.<sup>57</sup> While Denmark is conscious of and concerned by the environmental challenges of developing the region for exploitation of resources and utilization of newly opened transportation routes, it has shifted its posture toward a newly offensive exploitative approach emphasizing Arctic economic development.

The Joint Danish-Greenlandic Strategy Paper of May 2008 articulates this shift by stating that “Denmark and Greenland...have a clear foreign and security policy interest, that the new challenges and possibilities, which...climate changes may create in the Arctic, are handled in accordance with international legal principles and existing treaties.”<sup>58</sup> Denmark is a strong supporter of the existing legal framework of UNCLOS and currently holds the 2009–2011 chairmanship of the Arctic Council. It has recently rejected the idea of new treaty instruments for the region, such as an international Arctic Treaty modeled off of the Antarctica Treaty of 1957. Rather, Denmark’s posture encourages other Arctic nations to focus on the continued development and implementation of preexisting governance structures. Moreover, Denmark considers itself to be the leading advocate for the integration of climate change policy and foreign policy. It took on the high-profile role of host to the Copenhagen Climate Change Summit in December 2009, but was frustrated by its limited success.

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55. Nikolaj Petersen, “The Arctic as a New Arena for Danish Foreign Policy: The Ilulissat Initiative and its Implications,” in *Danish Foreign Policy Yearbook 2009*, ed. Hanna Hvidt and Hans Mouritzen (Copenhagen: Danish Institute for International Studies, 2009), p. 55.

56. *Ibid.*, p. 56.

57. “Oil and Gas Resource Potential of the East Greenland Shelf: Prototype for the USGS Circum-Arctic Resource Appraisal,” U.S. Geological Survey, [http://energy.usgs.gov/flash/NE\\_GREENLAND\\_ARCTIC\\_slideshow.swf](http://energy.usgs.gov/flash/NE_GREENLAND_ARCTIC_slideshow.swf).

58. Petersen, “The Arctic as a New Arena for Danish Foreign Policy,” p. 54.

On the military front, the Danish Defence Agreement 2010–2014<sup>59</sup> set aside a special section dedicated to “Greenland and the Arctic,” acknowledging the mounting burden on the Danish Armed Forces as activity in the Arctic continues to increase. It calls for the Greenland Command and the Faroe Command to be combined into a joint service and the creation of an Arctic Response Force, designed from the existing capabilities of the Danish Armed Forces. The plan calls for an additional 600 million DDK (about US\$117 million) to be spent on military upgrades in Greenland, including the use of combat aircraft for “surveillance and upholding sovereignty in and around Greenland,”<sup>60</sup> and for the execution of risk analysis of the maritime environment.

While on the one hand the Defence Agreement questions the value of increased cooperation by seeking a comprehensive analysis of “whether or not advantages exist in entering into closer cooperation with the Nordic countries, the USA, Canada, Russia, and the UK regarding surveillance and other similar tasks,”<sup>61</sup> on the other hand its military actions have highlighted its desire to work collaboratively with its neighbors. From April 6–26, 2010, Danish and Canadian military personnel conducted a joint northern military training exercise as part of Canada’s “Operation Nunavut.” About 150 military personnel, including Arctic Rangers and the Danish military dog team, took part to build cooperative military efforts and interoperability. In order to strengthen its security posture in the Arctic as a military presence, Denmark plans to improve and update its defense infrastructure. Its top two priorities are the expansion of Station Nord and Thule Air Force Base. First, Station Nord, which is operated by the Danish Greenland Command on the northeast corner of Greenland, will require upgraded ice and weather services and defense infrastructure to support inspection flights to the north and east of Greenland. Second, Denmark seeks to make greater use of Thule, which could serve as a base for Danish long-range inspection aircraft and other important defense capabilities. Thule Air Force Base is the northernmost military facility operated by the U.S. Air Force (USAF). The base hosts the USAF 821st Air Base Group and the 12th Space Warning Squadron under the USAF space command, which operates an early warning radar with a role in the U.S. and NORAD ballistic missile defense system.<sup>62</sup> The United States views Thule Air Force Base as a strategic asset, as it is part of a larger effort to protect the United States from intercontinental ballistic missile attack through its Upgraded Early Warning Radar (UEWR) system. For the foreseeable future, Greenland and Denmark will play a significant role in both shaping U.S. Arctic policy and in the development of a U.S. missile defense shield.

## Norway

*“The key words are the upholding of sovereignty and the exercise of authority.”*—Grete Faremo, Norwegian Defence Minister, discussing challenges in the High North for Norway, NATO and Russia in her New Year’s Address to the Oslo Military Society, January 1, 2010

Norway is actively engaged in the High North region (a common reference to the European portion of the Arctic region) due to a number of geographical, historical, political, and economic factors. Norway shares lengthy land borders and a number of seas with Russia. During the Cold War,

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59. Danish Ministry of Defence, “Danish Defence Agreement 2010–2014,” Copenhagen, June 24, 2009, <http://www.fmn.dk/Nyt%20og%20Presse/Documents/20090716%20Samlede%20Forligstekst%202010-2014%20inkl%20bilag%20-%20english.pdf>.

60. *Ibid.*, p. 12.

61. *Ibid.*

62. Information obtained from Thule Air Base Web site, <http://www.thule.af.mil/index.asp>.

Norway was the only NATO member to share a land border with the former Soviet Union. This reality was a driving factor in shaping Norway's foreign policy throughout the Cold War. The High North witnessed a constant flow of bombers and submarines from the United States and the Soviet Union patrolling the region. Without Norway as an ally, it would have been much more difficult for Washington to keep a watchful eye on the Soviet's Northern Fleet, which made up a sizeable proportion of Moscow's naval forces. Likewise, NATO membership and the U.S. security umbrella that came with its Article 5 provision provided Norway with a much greater sense of security vis-à-vis the superpower directly to its east.



Source: iStockphoto.com.

Norway's geographic proximity to strategic and economic areas of importance, which includes its disputed claims with Russia regarding the Svalbard archipelago,<sup>63</sup> compels Oslo to be a strong voice on regional issues. Norway recognizes the Arctic's great economic potential in oil and gas (an industry that generated some 22 percent of Norway's GDP in 2009<sup>64</sup>), its culturally important fisheries industry, and the prospect of increased maritime traffic and its associated economic benefits, and accordingly the Norwegian government has crafted a comprehensive geopolitical and regional policy. Domestic political considerations also play a role in Norwegian High North policy and politics as most Norwegian voters express strong concern over the need for environmental sustainability and enforceable environmental governance over a fragile ecosystem threatened by

the effects of climate change. Norway's "comprehensive approach" serves as a model for its Arctic neighbors of a balanced diplomatic and military strategy that seeks to engage relevant stakeholders and cooperate within the established framework of international governing institutions.

As a result of the Arctic's evolution from a site of potential Cold War conflict to an area of great economic potential, Norway has transformed its political and security posture toward the region. In recent years, Oslo has proactively and pragmatically engaged Russia in a way that facilitates a high degree of cooperation in a number of foreign policy areas, especially in the High North as stated in *The Norwegian Government's High North Strategy*,<sup>65</sup> the government's official and comprehensive policy for the region

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63. For more information on the disputed territorial claims of Svalbard, see Torbjørn Pedersen and Tore Henriksen, "Svalbard's Maritime Zones: The End of Legal Uncertainty?" *International Journal of Marine and Coastal Law* 24, no. 1 (2009): 141–161.

64. Paul Sigurd Hilde, "Norway and the Arctic: The End of Dreams," Atlantic Community, March 11, 2010, [http://www.atlantic-community.org/index/articles/view/Norway\\_and\\_the\\_Arctic:\\_The\\_End\\_of\\_Dreams%3F](http://www.atlantic-community.org/index/articles/view/Norway_and_the_Arctic:_The_End_of_Dreams%3F).

65. Norwegian Ministry of Foreign Affairs, *The Norwegian Government's High North Strategy*, Oslo, December 2006, <http://www.regjeringen.no/upload/UD/vedlegg/strategien.pdf>.

outlined in 2006. In this strategic document, Oslo explicitly refers its relations with Russia as “form[ing] the central bilateral dimension of Norway’s High North policy.”<sup>66</sup> It also calls Norway’s policy toward Russia as one “based on pragmatism, interests and cooperation.”<sup>67</sup>

Norway has demonstrated strategic patience with Russia during this transformative period from Cold War foe to strategic partner. Norwegian minister of foreign affairs Jonas Gahr Store noted at a recent Arctic meeting in Canada, “Not everything Russia does in the Arctic, not every flag they plant, which is a symbolic gesture, has legal meaning... And the more you react to that... you give it meaning.”<sup>68</sup> This diplomatic rhetoric is carefully calculated, as Norway believes that it is most capable of achieving its regional interests if it cooperates with Moscow on a number of bilateral economic and environmental projects that are mutually beneficial to each country, and in turn have helped to ease bilateral tensions.

Although Norwegian Arctic rhetoric has been reassuring and balanced, it has also preserved and enhanced its military options by moving a portion of its armed forces northward in 2009, including its modern frigates and new fleet of fighter planes, to strengthen its military capabilities to protect its sovereignty in the region.<sup>69</sup> The relocation of the armed forces’ joint operational headquarters from the southern city of Stavanger to Reitan in the north just above the Arctic Circle, as well as the relocation of its army staff from Oslo to Bardufoss, in northern Norway, clearly reflects Norway’s strategic shift in focus northward. While the occasional reporting of the presence of Russian bombers forcing Norway to scramble fighter jets in pursuit<sup>70</sup> and last year’s announcement that Moscow would establish a Russian Arctic Force surely rankled some in Norway,<sup>71</sup> Norwegian officials were restrained in their reactions. In response to the creation of a Russian Arctic Force, Norwegian minister of defense Espen Barth Eide said, “I don’t think an increased military presence needs to increase tensions if the interested parties are informed. Indeed, it can have the opposite effect.”<sup>72</sup> Oslo recognizes that its most effective foreign policy tool in advancing its interests is through constructive engagement and good neighborly relations with Moscow, but it also wants to ensure that it protects and projects its sovereignty in the High North.

## Russia

*“Our first and main task is to turn the Arctic into a resource base for Russia in the 21st century... Using these resources will guarantee energy security for Russia as a whole.”*<sup>73</sup>—Dmitry Medvedev, President of Russia, before a meeting of Russia’s Security Council in the Kremlin, September 2008

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66. Ibid, page 17.

67. Ibid, page 18.

68. Mike Blanchfield, “Keep cool head with Russia on Arctic: Norway minister,” *Toronto Sun*, March 29, 2010, <http://www.torontosun.com/news/canada/2010/03/29/13395571.html>.

69. “Norwegian Army moves north,” BarentsObserver.com, August 5, 2009, <http://www.barentsobserver.com/norwegian-army-moves-north.4616549.html>.

70. Wojciech Moskwa, “Russian bombers fly unusual N.Sea sortie: Norway,” Reuters, July 20, 2007, <http://www.reuters.com/article/idUSL2019566820070720>.

71. “Russia outlines Arctic force plan,” BBC News, March 27, 2009, <http://news.bbc.co.uk/2/hi/7967973.stm>.

72. “Russian Arctic troops ‘no concern’ for Norway,” RT.com, April 6, 2009, [http://rt.com/Politics/2009-04-06/Russian\\_Arctic\\_troops\\_\\_no\\_concern\\_\\_for\\_Norway.html](http://rt.com/Politics/2009-04-06/Russian_Arctic_troops__no_concern__for_Norway.html).

73. Lyubov Pronina, “Medvedev Says Arctic Is Russia’s Future Resource Base,” Bloomberg.com, September 17, 2008, <http://www.bloomberg.com/apps/news?pid=20601085&sid=aeWA6DvRZntg&refer=europe>.

Russia is the most determined and assertive player in the Arctic. The Russian Arctic stretches over 4,000 miles east to west, encompasses the entire northern coast of Eurasia (with the exception of Norway's coast), and has ongoing territorial disputes over the Lomonosov and Mendeleev Ridges. In 2007, Russia turned the attention of the world to the High North when it planted a Russian flag on the Arctic seabed as symbolic territorial assertion. In May 2009, Moscow published its *National Security Strategy of the Russian Federation until 2020*<sup>74</sup> outlining Russia's Arctic force plan, which stated that the polar region must become Russia's "top strategic resource base." It views the continuation of Russian wealth and competitiveness in the global market as dependent on Arctic resources, with as much as 20 percent of Russia's GDP and 22 percent of total Russian exports generated north of the Arctic Circle.<sup>75</sup> Some sources claim that "up to 90 percent of hydrocarbon reserves found on the entire Russian continental shelf are in the Arctic."<sup>76</sup> From Moscow's perspective, Russia's wealth of energy reserves strengthens its position and influence on the international stage and thus forms the foundation of Russia's security strategy in the Arctic.

In order to protect its access to these important economic assets, Russia's National Security Strategy establishes as a top priority the completion of geological studies to support its claims submitted to the UN Commission on the Limits of the Continental Shelf on the outer limits of its continental shelf. In 2001, this UN Commission rejected Russia's first submission for lack



Russian nuclear powered icebreaker NS 50 Let Pobedy entered service in 2007. Source: @kilpsi.com.

of evidence. The National Security Strategy also asserts that the Northeast Passage is a national transportation route under Russian jurisdiction and that any nation's efforts to change that legal status will be seen as a threat to Russia's national security. Russia perceives this shipping channel as potentially developing into the central link in a maritime network connecting Europe and Asia giving it significant authority and control over a major transport artery. But the fact that the Northeastern Passage is composed of a series

of different shipping lanes "stretching between 2,200 and 2,900 nautical miles, depending on ice conditions,"<sup>77</sup> complicates Russian claims.

74. *The National Security Strategy of the Russian Federation until 2020*, released May 13, 2009.

75. Dmitry Medvedev, speech at meeting of the Russian Security Council on Protecting Russia's National Interests in the Arctic, September 17, 2008, [http://eng.kremlin.ru/speeches/2008/09/17/1945\\_type82912type82913\\_206564.shtml](http://eng.kremlin.ru/speeches/2008/09/17/1945_type82912type82913_206564.shtml).

76. Katarzyna Zysk, "Geopolitics in the Arctic: The Russian Security Perspective," *Climate of Opinion*, issue 12—The Arctic (March 2009), [http://www.stockholm-network.org/downloads/publications/Climate\\_of\\_Opinion\\_12.pdf](http://www.stockholm-network.org/downloads/publications/Climate_of_Opinion_12.pdf).

77. Zysk, "Russia's Arctic Strategy."

Russia recognizes that a prerequisite to maximizing potential benefit from the Arctic's rich natural resources and maritime transit passageways is the development of key infrastructure, such as modern harbors and an expanded nuclear icebreaker fleet. Although Russia still maintains the world's largest icebreaker fleet, consisting of seven active nuclear icebreakers, plans to maintain and modernize its fleet have been slowed as the result of budget cuts and the fall in oil and gas revenues.

Despite the slowdown, Russia continues to increase its military presence in the Arctic. *The National Security Strategy of the Russian Federation until 2020* stresses the importance of strengthening border guard forces in the region and updating their equipment, while creating a new unit of military forces to "ensure military security under various military-political circumstances."<sup>78</sup> Russia's assertive rhetoric has been matched by a range of steps that stake its military prominence in the Arctic by developing its coastal defense infrastructure and enhancing its technology capabilities, which have been perceived by its Arctic neighbors as provocative and controversial. For example, Russia fired cruise missiles over the Arctic in a summer 2007 exercise; reinforced its Northern Fleet in order to perform additional exercises in the summer of 2008; tested new electronic equipment and precision weapons; and resumed Arctic patrols for the first time since the end of the Cold War. Several times during the past two years U.S. and NATO jets have shadowed Russian bombers close to the Norwegian and Alaskan coasts, particularly during and after the Georgia-Russia conflict in August 2008.

One could argue that Russia is implementing a two-track approach vis-à-vis the Arctic. On the one hand, Russia's increased military activity in the polar regions coupled with its stated objectives of a major naval buildup to operate in the Arctic suggest that it will be a potentially unpredictable and provocative player. On the other hand, Russia has demonstrated that it will play by the rules of international law (UNCLOS) as it submits its claims to the UN Commission on the Limits of the Continental Shelf, participates actively in the Arctic Council, and has signed the 2008 Ilulissat Declaration to maximize its economic benefits from a stable region.

Russia is perhaps no different in its strategic, dual approach from the other Arctic littoral states. All Arctic nations have a vested interest in ensuring the Arctic region is stable in order to maximize economic gain and benefit; all Arctic nations are also keeping their military options open and available for use to project sovereignty and to transmit to other nations a sense of claim and identity. The difference among the Arctic nations is in the degree and emphasis of implementation of the two-track approach. Russia is deploying what it sees as a "win-win" Arctic strategy: gain early military and commercial regional supremacy and hope to win equally at the United Nations and other multilateral tables. Other Arctic nations tend to place more emphasis on working bilaterally or within international governance structures and operating cooperatively with other Arctic nations, but all to a greater or lesser degree have or are making military adjustments to preserve their options. The question for the future will be if or how Russia will maintain its dual approach, or if it will continue to rely more heavily on developing an aggressive defense posture to achieve its means and determine the future of the Arctic to its liking.

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78. Vladimir Isachenkov, "Medvedev: Russia must tap Arctic resources," ABC News, March 17, 2010, <http://abcnews.go.com/Business/wireStory?id=10123406>.

## Summary of Conclusions

*“Human activity in the Arctic region is increasing and is projected to increase further in coming years. This requires the United States to assert a more active and influential national presence to protect its Arctic interests and to project sea power throughout the region.”*—National Security Presidential Directive 66 and Homeland Security Presidential Directive 25, January 9, 2009

While the other key Arctic players have increasingly prioritized their economic and national security interests in the region, the United States has been slow to implement its articulated interests and define a comprehensive and assertive strategy in the region. The Arctic must now play a broader role in U.S. strategic thinking.

### Short-term Policy Prescriptions

The United States must take some very concrete steps over the next several years to improve its strategic posture in the Arctic so that over the next 40 years the region is a model of regional cooperation and not a zone of potential conflict.

The most vital step the United States must take immediately is ratification of the Law of the Sea Convention (UNCLOS). UNCLOS provides the necessary guidance and appropriate framework to resolve claims to an extended continental shelf in the Arctic region. To prepare itself for ratification, the United States must continue to invest funds in Arctic scientific research and exploration in preparation for submitting U.S. claims for extended territorial boundaries. The Obama Administration must make UNCLOS ratification a legislative priority (amongst many other competing priorities) and achieve Senate ratification as soon as possible. Should the U.S. remain outside of UNCLOS for the foreseeable future, it will find itself in a growing strategic disadvantage in shaping future policy outcomes vis-à-vis the Arctic.

The second most significant step the United States must take is to develop the enhanced capabilities that will be necessary for an eventual ice-free Northwest and Northeast Passage, such as the development of additional nuclear icebreakers and greater search-and-rescue capabilities. This should be accomplished by enhanced collaboration and interoperability with Arctic states through joint training and joint exercises. Enhancing Arctic capabilities would provide an excellent opportunity for joint regional procurement activities whereby Arctic members could potentially share the costs of investment and production in ice cutters, reliable navigational aids, and critical satellite communication infrastructure. While cooperative or joint procurements may or may not be viable in the near term, there is an urgent need for joint operations and exercises among the five Arctic littoral states, specifically in the fields of environmental cleanup and remediation, as well as search and rescue. Both concepts should be viewed as an opportunity for enhanced regional cooperation as climate change continues to alter the geography of the Arctic maritime commons. Unfortunately, at this moment the United States significantly lags behind in articulating a clear budget and acquisition framework and timeframe for increasing coast guard and naval capabilities in the Arctic.

Finally, on the diplomatic front, the Obama administration must clarify its preferred institutional framework for working with the Arctic littoral states and other nations interested in the region as a whole. Is it the Arctic Five construct or will it be the Arctic Council? At the moment, it is unclear which institution the administration will use as its primary vehicle, but it must avoid sending mixed public signals as it did most recently in Canada when Secretary of State Clinton

participated in a meeting of the Arctic Five and then afterwards publicly stated that this was not the preferred forum for discussion of Arctic-related matters. If the Obama administration prefers to use the Arctic Council, a proactive strategy must be developed with the current members of the council regarding membership of countries not regionally linked to the Arctic, particularly as it relates to the European Union and China. If the administration prefers to address issues within the Arctic Five, it is recommended that a small secretariat-type vehicle or similar institutional support mechanism be developed to shore up the Arctic Five and to differentiate between its role and that of the Arctic Council. However, a continued lack of clarity on the institutional framework will only exacerbate regional tensions, slow collaboration, and fuel competition.

## Longer-term Recommendations

Over the long term, there are several steps the Obama administration should take to establish the United States as an active and engaged Arctic actor. Within the U.S. government, the White House should continue to improve interagency coordination, particularly between the Department of the Interior, the Department of Homeland Security (U.S. Coast Guard), the Department of State, the Department of Defense (U.S. Navy), and the Department of Transportation. All have mission-based interests in the Arctic, and all are preparing strategic planning documents and budgetary requirements. The time may be ripe either to appoint one lead U.S. agency on Arctic matters or have the National Security Council play a much more visible coordination role in support of implementation of NSPD 66/HSPD 25. Concurrently, one combatant command must have a lead role over the Arctic with support by and coordination with the other commands. We believe that NORAD would be an attractive candidate to take such a leading role as it already has an established cooperative relationship with Canada.

The Arctic region presents an opportune moment to strengthen cooperation with Russia, particularly international assistance and investment in developing its northern port facilities and commercial transportation infrastructure in the Russian Arctic region either bilaterally or cooperatively. Enhanced satellite navigation aids and more reliable ice flow and weather prediction models would facilitate global shipping, as well as regional development. As commercial expansion takes root in the Arctic, a proactive environmental protection and management plan must also be developed that supports the long-term sustainability of indigenous Arctic populations.

As the Obama administration faces a myriad of urgent domestic challenges and threats to national security, it is understandable that the Arctic region is only on the periphery of U.S. strategic priorities. Unpredictable modeling of ice melt and climate change and varying scientific predictions have lulled the United States into a false sense that there is an abundance of time for it to address these pressing issues. However, it will take a decade or more to develop the critical diplomatic, commercial, and military infrastructure in the Arctic necessary to ensure strong U.S. leadership. It is now time for the United States to implement a strategic Arctic policy that reflects U.S. priorities and promotes transparent and cooperative methods of behavior, whether that is related to international shipping, oil and gas extraction, search-and-rescue activities, or fisheries. Without concrete action today, the United States will be left behind in this strategically vital region. Through an abundance of recent strategic reviews and policy roadmaps, the United States has a defined U.S. Arctic strategy. But this is insufficient. The United States must now act to implement this strategy and identify the political will and accompanying resources today to accomplish its stated objectives.

*“The Arctic is upon us, now.”*—Rear Admiral Gene Brooks, U.S. Coast Guard, 2008





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