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THESIS

**THE EVOLVING ARCTIC: CURRENT STATE OF U.S.
ARCTIC POLICY**

by

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September 2013

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THE EVOLVING ARCTIC: CURRENT STATE OF U.S. ARCTIC POLICY

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ABSTRACT

The Arctic environment is in a state of flux and the U.S. government must be prepared to handle the evolution and capitalize on the opportunities. Once barren and desolate, the Arctic is slowly coming to life with industry and commerce brought about by receding ice conditions. Along with that comes the need for a comprehensive and actionable Arctic policy. The other Arctic nations that ring the North Pole are quickly adapting to the shifting Arctic. Unlike the U.S., they have established Arctic policies, are implementing plans to operate in the region, and taking advantage of the opportunities that this new frontier has to offer.

The U.S. framework is the National Strategy for the Arctic Region. The plan is short on detail and aspirational in nature. It lacks clear direction and authority. The U.S. has yet to commit to its role as an Arctic nation. The U.S. Arctic lacks infrastructure such as a deep-water port, a joint military base, and additional heavy icebreaker assets. Additionally, there is no lead agency that has authority and funding to carry out U.S. Arctic objectives. Under the current state of affairs, the U.S. is vulnerable to security, economic, and sovereignty issues in the Arctic.

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LIST OF ACRONYMS AND ABBREVIATIONS

AIS	Automatic Information System
BP	British Petroleum
CIA	Central Intelligence Agency
CLCS	Commission on the Limits of the Continental Shelf
CEI	Competitive Enterprise Institute
CSIS	Center for Strategic and International Studies
DoD	Department of Defense
DOE	Department of Energy
DOI	Department of Interior
DHS	Department of Homeland Security
EEZ	Exclusive Economic Zone
EU	European Union
FBI	Federal Bureau of Investigation
GAO	General Accounting Office
HSPD	Homeland Security Presidential Directive
ICC	International Criminal Court
IMO	International Maritime Organization
MDA	Maritime Domain Awareness
NGO	Non-governmental organizations
NSPD	National Security Presidential Directive
NOAA	National Oceanic and Atmospheric Agency
NORTHCOM	U.S. Northern Command
OPA 90	Oil Pollution Act of 1990
OCS	Outer Continental Shelf
NSR	Northern Sea Route
NWP	Northwest Passage
SAR	Search and Rescue
SDWG	Sustainable Development Working Group
SONS	Spill of National Significance
SORS	Spilled Oil Response System

SUPSALV	U.S. Navy Supervisor of Salvage
UNCLOS	United Nations Convention on the Law of the Sea
USACE	United States Army Corps of Engineers
USMC	United States Marine Corps
USCG	United States Coast Guard

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I. INTRODUCTION

A. RESEARCH QUESTION

What is the current state of U.S. Arctic policy, what are the gaps as compared with other nations in the region, and what improvements could be made if any?

B. PROBLEM SPACE

The Arctic environment is in great flux, and the U.S. government must be prepared to handle the changes and capitalize on the opportunities. The U.S. Arctic coast, once barren and desolate, is slowly coming to life with industry and commerce brought about by receding ice conditions; scientific studies show the polar ice caps have decreased by 25 percent over the past 35 years.¹ Along with that, comes the need for a comprehensive and actionable Arctic policy.

The other Arctic nations that ring the North Pole are quickly adapting to the shifting Arctic. Unlike the U.S., they have established Arctic policies, are implementing plans to operate in the region, and taking advantage of the opportunities that this new frontier has to offer. Countries such as Denmark and Norway are engaging diplomatically, and enhancing military capability to ensure sovereignty in the Arctic. Russia, the largest country in the Arctic, is hard at work capitalizing on the region to help strengthen their economy and build security and sovereignty. Likewise, Canada is enhancing military capability, while ensuring their economic and security needs are met. Moreover, non-Arctic nations, like China, India, and Singapore are taking an active interest in the Arctic and the opportunities it presents.

The other Arctic nations are working within the construct of the 1982 United Nations Law of the Sea Treaty (UNCLOS) to advance national interests. The U.S. has not yet acceded to UNCLOS, and trails its Arctic neighbors in regards to national policy and direction for the Arctic. Groups such as the Arctic Council (of which the U.S. is a

¹ Heather Conley and Jamie Kraut, "U.S. Strategic Interest in the Arctic An Assessment of Current Challenges and New Opportunities for Cooperation," Center for Strategic and International Studies (April 2010), 1.

participant) have been established to cooperatively deal with issues on pan-Arctic interest of a non-military nature. Unfortunately, the Arctic Council is merely consensus-based and lacks any real power to enact change or sanction a member. United States Arctic policy remains weak in protecting U.S. sovereignty and security interests. When contrasted with the Arctic policy of other nations, it is obvious that improvements need to be made to guard U.S. interests. While the U.S. procrastinates in taking its rightful place in the Arctic, Russia has made a claim to the North Pole based on their extended continental shelf claim, and non-Arctic states (China and India) are building polar icebreakers.

The current U.S. framework for Arctic policy is the National Strategy for the Arctic Region.² The plan is short on detail, and is mainly aspirational in nature. It lacks clear direction and authority to ensure U.S. Arctic objectives are met. The U.S. has yet to commit to its role as an Arctic nation, which is further exacerbated by the lack of accession to UNCLOS. The U.S. Arctic lacks infrastructure such as a deep-water port, a joint military base, and additional heavy icebreaker assets. Additionally, there is no lead agency that has authority and funding to carry out U.S. Arctic objectives. Under the current state of affairs, the U.S. is vulnerable to security, economic, and sovereignty issues in the Arctic.

C. THESIS ROADMAP

This thesis we will explore the literature concerning Arctic policies from both the U.S. and abroad. Next, we will review the current state of U.S. Arctic policy from the role of the Arctic Council to the lack UNCLOS. This will be followed by an overview of the current state of maritime governance in the Arctic by reviewing and analyzing the Arctic strategies from the seven Arctic nations. Canada, Denmark, Norway, Iceland, Sweden, Finland, and Russia have well-established Arctic policies based on the role of the Arctic in the geo-politics of each nation. Their respective Arctic plans are motivated by many factors including: sovereignty, security, economic development of natural

² The White House, "The National Strategy for the Arctic Region," May 10, 2013, http://www.whitehouse.gov/sites/default/files/docs/nat_arctic_strategy.pdf.

resource, protection of the changing eco-system, and the opportunity to build global influence. Only by analyzing the strategies of the neighboring Arctic states can the gaps in U.S. Arctic strategy be recognized. We will identify the hazards and trade-offs of the current state of U.S. Arctic governance. We will then look closely at some of the identified gaps in U.S. policy in contrast to the other nations ringing the North Pole. Finally, the thesis will examine some specific policy recommendations for the United States in the Arctic.

D. METHOD

Data Sources: The sources and evidence for this research included government publications and documents, professional, educational literature, and internal government reports on Arctic policy. Background information on U.S. policy was also gleaned from private conversations with several subject-matter expert colleagues.

Type and Mode of Analysis: This thesis is a policy analysis conducted with the eight-step process outlined in Barbach's "A Practical Guide for Policy Analysis." The steps are: define the problem, assemble the evidence, construct the alternatives, select the criteria, project the outcomes, confront the trade-offs, decide, and tell your story. Specifically, review the current state of U.S. Arctic Policy as compared to that of other Arctic nations in order to identify gaps, assess maritime traffic trends, and establish a set of policy recommendations to address them. Particular areas of weakness in U.S. policy, from the beginning of this inquiry, were the impact of the U.S. not ratifying the U.N. Law of the Sea Treaty (UNCLOS), lack of U.S. icebreaking capability, the lack of deep-water port in the Arctic, and the lack of a permanent federal presence (Department of Homeland Security (DHS)/ United States Coast Guard (USCG) and Department of Defense (DoD)). For example, the increase in maritime activity as measured by the Automatic Information System (AIS) and other collection sources will likely result in the loss of life due to a lack of Search and Rescue assets. Environmental and property damage from a maritime transportation accident or Arctic drilling would likely result from a lack of quick response capability. A spill or maritime casualty would in turn also set back economic development, wildlife, and Native Alaskan subsistence living. In

addition, the thesis contrasted the costs to the cost of establishing a year-round DHS/Coast Guard maritime presence in the Arctic.

Output: This thesis is largely an analysis of the current U.S. Arctic Framework; since the U.S. Arctic is a maritime region, and given the researcher's professional placement in the maritime context, the research questions are posed and explored through a maritime lens which is a balance of security, economic and infrastructure needs (as opposed to a strictly political or economic lens). Specifically, the policy recommendations made at the end of this project are intended for Homeland Security, U.S. Coast Guard, and Defense Department consumers to form the basis of a new, competitive, and effective U.S. Arctic policy.

Criteria by which to judge existing policies: The Arctic is opening up and as a result economic opportunities such as oil/gas exploration, maritime transportation, and maritime tourism are expanding exponentially. As commercial opportunities increase in the region, the U.S. needs an effective policy to deal with this new frontier that up until a few short years ago was covered with ice and had little commercial interest and economic value.

From a DHS/CG and DoD perspective, the increased commerce brings a challenge to ensure agencies like the CG (that has 11 statutory missions in U.S. and international waters) have a presence in the Arctic to carry out those missions.³ Currently, with no permanent USCG/DoD presence lives will be lost due to maritime mishaps and casualties as response assets are lacking (no Search and Rescue (SAR) assets, SAR infrastructure, polar-icebreaking capability). Property and the environment will be also at risk due to a lack of oil spill response capability, lack of maritime transportation system in the region, and no deep-water port capability. These capabilities and programs exist in the other coastal states and territories of the U.S. United States Arctic policy should be the catalyst to solve these problems.

³ By law, the Coast Guard has 11 missions: Ports, waterways, and coastal security, Drug interdiction, Aids to navigation, Search and rescue, Living marine resources, Marine safety, Defense readiness, Migrant interdiction, Marine environmental protection, Ice operations, Other law enforcement. Coast Guard mission. <http://www.uscg.mil/top/missions/>.

E. LITERATURE REVIEW

The literature on U.S. Arctic Policy can be divided into three categories that include government publications, scholarly work, and popular media articles and books. A review of these categories provides an in-depth review of the current status of America's Arctic Policy and the gaps within, as well as the Arctic policies of the remaining seven Arctic nations. Due to the rapidly changing environment in the high northern latitudes, the majority of the literature reviewed was published within the past few years. Moreover, it seems like there is a new comment or publication on the Arctic every day. This makes it difficult to track a "current status" of literature and also contributes to confusion regarding U.S. policy and interest.

Government Publications—Released on 10 May 2013, and unveiled at the subsequent Arctic Council meeting in Sweden by Secretary of State John Kerry, "The National Strategy for the Arctic Region" attempts to build upon the previously released U.S. framework for Arctic policy in the National Security Presidential Directive-66/Homeland Security Presidential Directive (NSPD-66/HSPD-25).⁴ The strategy objectives include advancing American security interests, practicing sustainable Arctic administration, and fortifying international cooperation.⁵ Critics agree, the U.S. plan is short on detail and provides tactical direction beyond the desire to accede to UNCLOS.⁶ Like NSPD-66/HSPD-25, the latest strategy lacks clear direction and authority to ensure necessary U.S. Arctic objectives are met.

Prior to the release of the 2013 strategy, NSPD-66/ HSPD-25 was the foundation of U.S. Arctic policy.⁷ President George W. Bush signed it in January 2009. NSPD-66/HSPD-25), and it was designed to meet homeland security and national security needs

⁴The White House, "The National Strategy for the Arctic Region," May 10, 2013, http://www.whitehouse.gov/sites/default/files/docs/nat_arctic_strategy.pdf.

⁵ Ibid.

⁶ Juliet Kayyem, "A Seat at the Arctic Table," *The Boston Globe*, May 16, 2013, <http://www.bostonglobe.com/opinion/2013/05/16/summertime-arctic-and-still-has-effective-strategy-for-coping-with-melting-seas/w7lnbWsgGxNXDk3xacOuZJ/story.html>.

⁷ National Security Presidential Directive-66 and Homeland Security Presidential Directive 25 (January 2009), II.A. <http://www.fas.org/irp/offdocs/nspd/nspd-66.htm>.

while strengthening ties among the Arctic nations.⁸ Security interests named in the framework include: missile defense, maritime security, freedom of navigation, strategic sealift, and maritime presence. The U.S. must project sea power in order to meet the developing missions due to increased human activity as well as ensure lawful sovereign claims and rights in the Arctic.⁹ Because freedom of navigation is a “top national priority,” the U.S. must have a strong presence to preserve rights and duties for over flight and navigation within the region (Northwest Passage (NWP) and Northern Sea Routes (NSR)).¹⁰

In May 2013, the U.S. Coast Guard published the “United States Coast Guard Arctic Strategy.” It is the Coast Guard’s strategic plan for the Arctic for the next 10 years. The service’s Arctic Strategy is based on three principles including: improving awareness of the activities of the maritime domain, modernizing governance, and broadening partnerships.¹¹ The publication is glossy and full of color photos and graphs. It is a step in the right direction and represents the boldest vision of any U.S. agency in the high north. In a total of 47 pages, the document makes an excellent case for the Coast Guard’s leadership and executive role in the emerging Arctic, but the lack of support and commitment from the Administration and Congress (in the form of a weak budget), and service’s plans for merely seasonal operations for the years to come, makes the service appear to be a mere “paper tiger” or “paper polar bear” for the foreseeable future. Despite its shortcomings, the Coast Guard makes a strong argument to be the lead federal agency in the Arctic and is the first agency to provide a theater-strategy plan for the Arctic.

Another major source of information in support of the U.S. Arctic position is congressional testimony. Admiral Thad Allen provided testimony before the Subcommittee of the Committee on the Appropriations U.S. Senate for the 111th

⁸ National Security Presidential Directive and Homeland Security Presidential Directive II.A, <http://www.fas.org/irp/offdocs/nspd/nspd-66.htm>.

⁹ National Security Presidential Directive and Homeland Security Presidential Directive II.B, <http://www.fas.org/irp/offdocs/nspd/nspd-66.htm>.

¹⁰ National Security Presidential Directive and Homeland Security Presidential Directive III.B 5, <http://www.fas.org/irp/offdocs/nspd/nspd-66.htm>.

¹¹ “United States Coast Guard Arctic Strategy,” United States Coast Guard Headquarters, Washington, D.C., (May 2013).

Congress on August 20, 2009 in Anchorage, AK on this issue.¹² Allen was the 30th Commandant of the U.S. Coast Guard, serving from 2006–2010, and led the federal response to Hurricane Katrina in 2005 and the Deepwater Horizon Spill response in 2010. He provided critical homeland security leadership across both Democratic and Republican administrations, and as a result, is considered a transformational leader. As a leader in homeland security, Congress frequently seeks his insight. In this testimony, Admiral Allen discusses the strategic importance of the Arctic to U.S. policy and the need for a U.S. presence in the region.

Numerous government reports on the changing Arctic were written over the past few years. The Department of Defense’s *Quadrennial Defense Review Report*, released in February 2010, provides an overarching report on the state of national security and details on the latest issues in Arctic policy as they relate to defense issues.¹³ Later in 2011, the Department of Defense Office of the Secretary of Defense Policy submitted a Report to Congress on “Arctic Operations and the Northwest Passage.”¹⁴ The report is valuable because it provides an alternate view from most other government publications. Most sources criticize the government for not moving fast enough with respect to the Arctic, while this one calls for additional research on the environment before committing precious U.S. resources. The drafters of the report are obviously not convinced that the Arctic environment is changing from ice to blue water. Critics of DoD might say that, in light of not previously committing resources and research to the Arctic, it was engaging in “CYA” in this report. Another argument could be that DoD has been stretched very thinly over the past 10 years, fighting two wars and has little capacity or funding for this mission outside a mandate from the Administration. In contrast to the DoD position in the report, the National Strategy for the Arctic Region fully acknowledges climate change in the form of diminishing sea ice and the “emergence of a new Arctic environment.”¹⁵

¹² Admiral Thad Allen, testimony before the Subcommittee of the Committee on the Appropriations U.S. Senate. 111th Congress (August 20, 2009, Anchorage AK).

¹³ Department of Defense, *Quadrennial Defense Review Report* (February 2010), 19, 62.

¹⁴ Department of Defense, *Report to Congress on Arctic Operations and the Northwest Passage*, Office of the Undersecretary of Defense (Policy) (May 2011), 2–4.

¹⁵ The White House, “The National Strategy for the Arctic Region,” May 10, 2013, 2.

In January 2012, the General Accounting Office (GAO) published a report on “Arctic Capabilities.”¹⁶ This report identified gaps in current U.S. policy and the growing need to pinpoint capability needs in the Arctic. In the report, GOA lays criticism on DoD for not undertaking efforts to ensure the department would be in position to meet near-term Arctic capabilities. DoD has gaps in its ability to navigate, communicate, and maintain domain awareness in the region. GOA stated the DoD needed to coordinate with the Coast Guard to address capability gaps (such as polar icebreaking) and to seek out collaborative opportunities in the Arctic.¹⁷

Most recently the Interagency Working Group on Coordination of Domestic Energy Development and Permitting in Alaska Report was released in March 2013. The report is entitled “Managing for the Future in a Rapidly Changing Arctic: A Report to the President.”¹⁸ The Chair of the group is David Hayes, the Deputy Secretary of the Department of the Interior. This report appears to be the most comprehensive report on the state of Arctic energy development and permitting to date. As a permitting agency for Arctic drilling, the Department of Interior (DOI) has been very critical of Shell Oil Company following its 2012 drilling season due to concerns over Shell’s ability to handle a mishap while engaged in drilling operations. Unlike the latest national strategy on the Arctic, the DOI Report lays out a plan for the Arctic with a sharp focus on energy development, which is the catalyst for drawing commercial and government resources and assets to the region.

Award-winning essayist and renowned specialist in naval affairs, Ronald O’Rourke, wrote “Changes in the Arctic: Background and Issues for the Congress Congressional Research Service” in June 2012.¹⁹ The report tracks the current trends in Arctic policy research. The report gives a summary of the latest Arctic issues including:

16 Government Accountability Office, Arctic Capabilities, GAO-12-180 (January 2012).

17 Ibid.

18 Department of the Interior, Interagency Working Group on Coordination of Domestic Energy Development and Permitting in Alaska, “Managing for the Future in a Rapidly Changing Arctic: A Report to the President,” (March 2013).

19 Ronald O’Rourke, Changes in the Arctic: Background and Issues for Congress (Congressional Research Service, June 15, 2012).

loss of Arctic sea ice and the impact on climate change; territorial claims and sovereignty issues with respect to the U.S. position on UNCLOS; commercial sea transportation; energy exploration; oil spill response; fisheries enforcement; Alaskan natives in the Arctic; Coast Guard operations (polar icebreaking and search and rescue); other military operations and the geopolitical environment.

Another seminal document for Arctic policy is the United Nations Convention on the Law of the Sea (UNCLOS) concluded in 1982 in Montego Bay, Jamaica. The Convention replaced four 1958 treaties. UNCLOS came into force in 1994. To date, 162 countries and the European Union have signed on to the Convention, including all of the Arctic nations (Norway, Sweden, Denmark, Canada, Russia, Iceland, and Finland). The U.S. has not ratified UNCLOS, but treats the convention as customary international law. Customary international laws are norms that have become widespread enough in the international arena through practice and application that individual states do not need to consent in order to be bound by them. Some have argued that if it is already custom, there is little to gain from accession. “But custom and practice are far more malleable and subject to interpretation.”²⁰ Moreover, the only process for claiming portions of the extended Continental Shelf for a nation’s use are through procedures set out in UNCLOS. These procedures are too new to be recognized as customary international law. Other nations, such as China, could press UNCLOS into vanguard, negative directions, if the U.S. does not ratify the treaty and fully participate in this letter and spirit of the treaty. UNCLOS is valuable to this research as it is the framework the other seven Arctic nations use for legal governance and cooperation. Additionally, UNCLOS contains specific dispute resolution mechanisms for maritime boundary lines and resource dispute claims for the Arctic through arbitration.²¹

Conservative political factions are not in favor of working in cooperation with United Nations (parent organization of the International Maritime Organization (IMO)).

20 Stewart Patrick, “(Almost) Everyone Agrees: The U.S. Should Ratify the Law of the Sea Treaty,” *The Atlantic*, June 10, 2012, <http://www.theatlantic.com/international/archive/2012/06/-almost-everyone-agrees-the-us-should-ratify-the-law-of-the-sea-treaty/258301/>.

21 United Nations Convention on the Law of the Sea. Annex II. Commission on the limits of the Continental Shelf, 1982, http://www.un.org/Depts/los/convention_agreements/texts/unclos/annex2.htm.

Furthermore, they do not want the United States to subject itself to international tribunals have effectively prevented U.S. accession to UNLCOS. But UNCLOS accession is supported from all the military service chiefs and the Chairmen of the Joint Chiefs, who have traditionally been highly selective with respect to treaties and how they potentially affect U.S. service members. For example, they expressed concern over the Rome Statute of the International Criminal Court (ICC) because it was believed to place U.S. personnel at risk for trial by an international tribunal. But this is not true for UNCLOS because the service chiefs believe UNCLOS will support, rather than thwart, U.S. operations.²² As the principal force behind the negotiation of UNCLOS in Montego Bay back in 1982, the treaty encompasses everything the U.S. military wants, and is not the “bogy man.”

Numerous foreign publications form the basis of the literature on the Arctic policy of the seven other nations. The specific Arctic plans focus on sovereignty and economic development in the nascent Arctic. America’s closest neighbor and partner in the Arctic, Canada, released its “Statement on Canada’s Arctic Foreign Policy: Exercising Sovereignty and Promoting Canada’s Northern Strategy Abroad,” in 2012.²³ Canada’s Office of Foreign Affairs and International Trade drafted the policy. In February 2013, Russia, the next closest nation geographically to the U.S. in the Arctic, unveiled its long-term strategic program for the Arctic. Signed by President Vladimir Putin, the plan is entitled, “The Development Strategy of the Arctic Zone of the Russian Federation.”²⁴ The remaining five Arctic nations are small in size, but they all have very comprehensive, ambitious, and operationally-driven Arctic plans. Released in 2011, Sweden’s “Strategy for the Arctic Region” represents that nation’s first Arctic policy.²⁵ The Ministry of Foreign Affairs in the Arctic Secretariat drafted the plan. Through its Prime Minister’s

22 Stewart Patrick, “(Almost) Everyone Agrees: The U.S. Should Ratify the Law of the Sea Treaty,” *The Atlantic*, June 10, 2012, <http://www.theatlantic.com/international/archive/2012/06/-almost-everyone-agrees-the-us-should-ratify-the-law-of-the-sea-treaty/258301/>.

23 Government of Canada, “Statement on Canada’s Arctic Foreign Policy: Exercising Sovereignty and Promoting Canada’s Northern Strategy Abroad” Foreign Affairs and International Trade Canada (February 1, 2013).

24 Russian Federation, “The Development Strategy of the Arctic Zone of the Russian Federation,” (February 20, 2013).

25 Kingdom of Sweden, “Sweden’s Strategy for the Arctic Region,” Government Offices of Sweden (2011), <http://www.government.se/content/1/c6/16/78/59/3baa039d.pdf>.

Office, Finland published its “Strategy for the Arctic Region” in July 2010.²⁶ In 2011, Iceland published its Arctic Policy called “A Parliamentary Resolution on Iceland’s Arctic Policy.” It was approved by Althingi, Iceland’s national parliament, at the 139th legislative session.²⁷ The Kingdom of Denmark’s “Strategy for the Arctic 2011–2020” was released in 2011.²⁸ The Kingdom of Denmark includes Denmark, Greenland, and the Faroe Islands. The Ministry of Foreign Affairs for all three nations signed the plan. Norway’s “High North” strategy was initially announced in December 2006.²⁹ It was updated in 2009 when Norway released the report “New Building Blocks in the North: The next step in the Government’s High North Strategy,” which identifies seven priority areas.³⁰ The Ministry of Foreign Affairs released both documents. Critics consider Norway’s plan “a very practical, results-oriented Arctic strategy” that is advanced compared with those of Russia, Canada, and Denmark.³¹

Scholarly Sources—Oran Young’s *Creating Regimes, Arctic Accords, and International Governance*, published in 1998 by Cornell University Press provides great background on the complexities of international affairs in the region.³² Although the book was written fourteen years ago, the models discussed still have application in the current geo-political Arctic landscape. The key to successful governance in the Arctic is through cooperation and coordination of Arctic states much in the manner the Arctic

26 Republic of Finland, “Finland’s Strategy for the Arctic Region,” Prime Minister’s Office Publication (2010), 7, <http://formin.finland.fi/public/download.aspx?ID=63216&GUID=percent7BC92863F7-1188-4975-9CC8-34EA16C26D07percent7D>.

27 Republic of Iceland, “A Parliamentary Resolution on Iceland’s Arctic Policy,” (March 28 2011), <http://www.mfa.is/media/nordurlandaskrifstofa/A-Parliamentary-Resolution-on-ICE-Arctic-Policy-approved-by-Althingi.pdf>.

28 Governments of Denmark, Greenland and the Faroe Islands, “Kingdom of Denmark Strategy for the Arctic 2011–2020,” (2011), <http://uk.nanoq.gl/~media/29cf0c2543b344ed901646a228c5bee8.ashx>

29 Kingdom of Norway, “The Norwegian Government’s High North Strategy,” (December 2006), Ministry of Foreign Affairs Norway (2006), <http://www.regjeringen.no/upload/UD/Vedlegg/strategien.pdf>.

30 Kingdom of Norway, “New Building Blocks in the North: The next step in the Government’s High North Strategy,” Ministry of Foreign Affairs Norway (2009), http://www.regjeringen.no/upload/UD/Vedlegg/NordomrpercentC3percentA5dene/new_building_blocks_in_the_north.pdf.

31 Daniel Buikema Fjaertoft, “Norwegian Grand Strategy and the Arctic,” Global Brief (June 27, 2011), <http://globalbrief.ca/blog/2011/06/27/norwegian-grand-strategy-and-the-arctic/>.

32 Oran Young, *Creating Regimes Arctic Accords and International Governance* (Cornell University Press: New York, 1998).

Council has developed. Mr. Young is on the faculty of the University of Tromsø in Norway and the University of California at Santa Barbara as the Director of the Institute of Arctic Studies.

Numerous scholarly journals have published articles on the state of U.S. Arctic policy. These documents are important as they often espouse different aspects of Arctic policy from economic and security interests to international cooperation. Charles Ebinger and Evie Zambetakis wrote “The Geopolitics of Arctic Melt” for *International Affairs* in 2009.³³ Ebinger is senior fellow and director of the Energy Security Initiative at Brookings. Zambetakis is the Managing Director at Energy Security Research, LLC. The authors profess that the thawing Arctic will continue to pose military, economic, and environmental challenges to the governance of the region. Furthermore, technology is the barrier to entry, but the key to long-term success, in the high north.³⁴

Jeremy Rabkin of the Competitive Enterprise Institute (CEI) penned “The Law of the Sea Treaty: A Bad Deal for America.”³⁵ CEI is a non-profit American think tank founded over twenty-five years ago to advance economic liberty and stem the tide of over-regulation by the government. Professor Rabkin is an international law scholar and was recently confirmed by the U.S. Senate as a member of the Board of Directors of the United States Institute of Peace. Rabkin is a Professor of Law at George Mason University School of Law. Previously, he was a Professor of Government at Cornell University for 27 years. This article is significant as it offers an alternative point of view on the subject of UNCLOS and U.S. ratification of the treaty. The author states that UNCLOS is not a good deal for the United States and by signing it will surrender sovereignty to the IMO, which is run by the United Nations. The review of the literature revealed a majority of the authors favored U.S. accession to UNCLOS or the *status quo*.

33 Charles Ebinger and Evie Zambetakis, “The Geopolitics of Arctic Melt,” (*International Affairs* Vol. 85, June 2009).

34 Ebinger and Zambetakis, “The Geopolitics of Arctic Melt,” 1217.

35 Jeremy Rabkin, *The Law of the Sea Treaty: A Bad Deal for America* (Competitive Enterprise Institute, No.3, 2006), 1–2. <http://cei.org/pdf/5352.pdf>, <http://www.heritage.org/events/2011/09/mike-lee>.

In 2010, Jamie Kraut and Heather Conley from the Center for Strategic and International Studies (CSIS) wrote “U.S. Strategic Interest in the Arctic: An Assessment of Current Challenges and New Opportunities for Cooperation.”³⁶ Kraut is currently serving as the Director of the Young Professionals in Foreign Policy and was a research assistant at CSIS. Kraut is a graduate of the Fletcher School at Tufts. Heather Conley is the Senior Fellow and Director of the Europe Program at CSIS. Formerly, Ms. Conley served as the deputy assistant secretary of state in the Bureau for European and Eurasian Affairs. CSIS is a bipartisan Washington, D.C., based foreign policy think tank. CSIS conducts policy studies and strategic analyses on political, economic, and security issues, focusing on technology, public policy, international trade and finance, and energy. The authors assert that with the race for resources underway in the Arctic, there is potential for conflicting territorial claims leading and instability in the region. As a result, the U.S. must formulate its strategic interests and develop a “plan of action” to forestall challenges and ensure dispute resolution.³⁷

In late spring 2010, Josh Rogin produced an article in Foreign Policy entitled, “Who is in Charge of Arctic Policy?” Rogin previously wrote on defense and foreign policy as a staff writer for Congressional Quarterly.³⁸ He currently writes a web column called “The Cable” on national security and foreign policy issues. In this piece, he states the Arctic presents a great opportunity as the new frontier of transnational policy making.³⁹ Also in 2010, David Titley and Courtney St. John wrote, “Arctic Security Considerations and the U.S. Navy’s Roadmap for the Arctic” published in the Naval War College Review.⁴⁰ The Naval War College Review has been in print for over 60 years and is a publication dedicated to the discussion of public policy matters of interest to the

36 Heather Conley and Jamie Kraut, “U.S. Strategic Interest in the Arctic An Assessment of Current Challenges and New Opportunities for Cooperation,” Center for Strategic and International Studies (April 2010).

37 Ibid., 3.

38 Josh Rogin, “Who is in Charge of Arctic Policy?” Foreign Policy, May 2010, http://thecable.foreignpolicy.com/posts/2010/05/07/who_s_in_charge_of_arctic_policy.

39 Ibid.

40 David Titley and Courtney St. John, “Arctic Security Considerations and the U.S. Navy’s Roadmap for the Arctic,” Naval War College Review, Vol. 63, No. 2 (Spring 2010).

maritime services (USCG, Navy, and USMC). Rear Admiral Titley is the acting Assistant Deputy Chief of Naval Operations for Information Dominance. Previously, he served as the Navigator and Oceanographer of the Navy. Courtney St. John is the Associate Director for Outreach at the Center for Research on Environmental Decisions (CRED) at Columbia University. Formerly, she was the Climate Change Affairs Officer for the United States Navy's Task Force Climate Change. The authors detail the importance of the U.S. Navy as a strategic national security tool in the changing Arctic. In "A Coast Guard for the Emerging Arctic," by Coast Guard Captain and Council on Foreign Relations Fellow, Peter Troedsson, Captain Troedsson argues the Coast Guard is poised to be the agency of action to execute a U.S. Arctic policy. The service's mission set and history provide the experience and authorities to ensure U.S. sovereignty and maritime safety and security in the region. He also admits that, due to a bleak budget outlook, this can only be accomplished seasonally.⁴¹

Media and Books—*The Eskimo and the Oil Man* by Bob Reiss is 2012 book about the current state of economic affairs in the U.S. Arctic. Reiss has written 18 fiction and non-fiction books. He has covered Arctic issues in numerous publications including Smithsonian, Outside, Parade, and Politics Daily. Reiss's book provides a current and unique insight into the modern gold rush in the U.S. Arctic from the perspectives of both industry and the native people most affected by the shifting environment.⁴²

There are numerous articles from the popular media at large such as the Associated Press, American Forces Press, The Los Angeles Times, and The New York Times. The articles largely focus on the current political, economic, and security related events in the Arctic and go in to less depth than the more academic articles and reports from "think tanks." For example, Rear Admiral (RADM) David Gove published "Arctic Melt: Reopening the Naval Frontier" for the U.S. Naval Institute's Proceedings Magazine in 2009.⁴³ RADM Gove is now retired and serves as the Director, Undersea Systems at

41 Captain Peter Troedsson, USCG, "A Coast Guard for the Emerging Arctic," Council on Foreign Relations, May 31, 2013, <http://www.cfr.org/arctic/coast-guard-emerging-arctic/p30820>.

42 Bob Reiss, *The Eskimo and the Oil Man* (Business Plus: New York, 2012).

43 Rear Admiral David Gove, U.S. Navy, "Arctic Melt: Reopening a Naval Frontier," Proceedings Magazine, February 2009, www.usni.org/print/4133.

Raytheon Integrated Defense Systems. He previously served as the Oceanographer and Navigator of the U.S. Navy. Gove's article posits that the changing Arctic environment provides an opportunity for America's seas services. The article is helpful in identifying and evaluating gaps in the current policy.

The overall literature provides a wide range of views on current U.S. Arctic policy and future of the U.S. operations from the academic, government publications, and popular media. The consensus is that the U.S. is behind the power curve due to an ineffective U.S. Arctic policy, planning, and lack of clear direction. This is underpinned by the lack of UNCLOS accession and a failure to invest in the assets and infrastructure required to successfully operate in the region. A bright spot is the collaborative work being accomplished through the Arctic Council.

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II. ASSEMBLING THE EVIDENCE—REVIEW OF CURRENT U.S. ARCTIC FRAMEWORK

A. U.S. HAS AN ARCTIC “WISH LIST” (NOT POLICY)

The National Strategy for the Arctic Region as mentioned in the literature review is the basis for U.S. Arctic policy. It is a framework built generally around the dual goals of meeting homeland security and national security needs, while strengthening ties among the Arctic nations. The strategy defines specific lines of effort to include advancing U.S. security interests, practicing responsible Arctic stewardships, and building international cooperation in the region.⁴⁴ The lines of effort will be guided by the following principles; safeguarding peace and stability, making decisions based on the best available information, pursuit of innovative arrangements, and consultation with Alaska Natives.⁴⁵

As with NSPD-66/HSPD-25, the latest U.S. strategy states that the U.S. must project sea power in order to meet the developing missions, due to increased human activity, as well as to ensure lawful sovereign claims and rights in the Arctic. Because freedom of navigation is a top national priority, the U.S. must establish a strong presence to preserve rights and duties for overflight and navigation within the region (NWP and NSR).⁴⁶

The strategy calls upon the Secretaries of Homeland Security, State, and Defense to increase capabilities for operating in the region without specific direction, additional funding, or authority. The directives support the specific lines of effort called out in the strategy. In order to advance security interests the U.S. must enhance Maritime Domain Awareness (MDA), preserve Arctic freedom of navigation, “evolve” the current infrastructure, and provide for U.S. energy security.⁴⁷ With respect to the second line of effort of pursuing responsible Arctic region stewardship the U.S. must conserve natural

⁴⁴ The White House, “The National Strategy for the Arctic Region,” May 10, 2013, 2.

⁴⁵ *Ibid.*, 2–3.

⁴⁶ *Ibid.*, 4.

⁴⁷ *Ibid.*, 7.

resources and protect the Arctic environment, work in close coordination with the Native populations, and accurately chart the Arctic shoreline and waters.⁴⁸ The third line of effort is strengthening international cooperation, which is accomplished through seeking opportunities to promote sustainable development, utilizing the Arctic Council to advance U.S. accession of UNCLOS, and cooperating with other interested non-Arctic and non-state parties to advance common objectives in the Arctic.⁴⁹

Although not mentioned in the latest national Arctic policy, PDD-66/NSPD-25 acknowledged that the geopolitics of the Arctic do not allow for an “Arctic Treaty” akin to the Antarctic Treaty.⁵⁰ There has been some dissent on this issue among some critics who believe an “Arctic Treaty” should be signed, and like the Antarctic Treaty, should ban military activities and commercial fishing.⁵¹ Unlike the Arctic that contains the sovereign territory of the eight nations that encompass it, the Antarctic is not owned by any single nation. Antarctica is primarily used for scientific research and not the sovereign territory of any one nation. An Antarctic-type treaty in the Arctic would require the nations signing it to give up significant coastal state’s rights such as economic and energy development and would only work if all eight Arctic nations signed-on. This is highly unlikely. A criticism of the PDD-66/NSPD-25 was its lack of guidance for protecting the unspoiled American Arctic environment, potentially converts the region into a military controlled and industrial wasteland.⁵² In contrast, one of the main motivations behind the new national strategy is protection of the Arctic environment and ecosystem.

Critics have stated America’s policy has no plan of action or budgetary plan tied to the proposed Arctic initiatives. The Arctic Institute, the nation’s leading “think tank” on Arctic issues, has panned the plan, “without a clear budgetary plan, this strategy

48 Ibid., 8.

49 Ibid., 9–10.

50 Ibid., .3.

51 Rick Steiner, “President Obama should reject last-minute Arctic Policy,” Anchorage Daily News, January 19, 2009.

52 Ibid.

becomes nothing more than a lengthy wish list...the U.S. Arctic strategy remains as elusive [as] a mirage on the Arctic ice sheet.”⁵³

While the U.S. government delays on an actionable Arctic policy, industry is moving forward with U.S. Arctic development. The increased international focus on the Arctic requires broader strategic thinking on the part of the U.S. to develop a strategy regarding vast natural resources such as fish, timber, hydrocarbons, and other minerals that make the Arctic region critical. The opening of the NSR from Asia to the West, and the opening of the NWP above Canada, will transform global surface transportation by drastically reducing the travel distance between those regions.⁵⁴

According to the U.S. Geological Survey, the Arctic has an estimated 90 billion barrels of oil, 1,670 trillion cubic feet of natural gas, and 44 billion barrels of natural gas liquids, all of which are recoverable.⁵⁵ As a result, Shell Oil Company commenced exploratory drilling in the U.S. Exclusive Economic Zone (EEZ) in 2012 as the first step toward offshore oil production. Over the next few years, British Petroleum (BP) and Statoil are planning to commence drilling in U.S. waters.⁵⁶ The economic impact of U.S. Arctic drilling could be significant.⁵⁷ In order to ensure readiness, but absent a comprehensive plan, U.S. agencies such as the Department of Energy (DOE), Department of Interior, Coast Guard, and Department of Defense have been scrambling to be prepared for the contingencies such development requires including search and rescue, oil spill response, and suitable infrastructure.

53 Lara Jakes, “Critics lukewarm on U.S. plans in Arctic,” (Seattle Times, May 13, 2013).

54 Conley and Kraut, U.S. Strategic Interest in the Arctic An Assessment of Current Challenges and New Opportunities for Cooperation, 5.

55 No author, “90 Billion Barrels of Oil and 1,670 Trillion Cubic Feet of Natural Gas Assessed in the Arctic,” USGS Newsroom, July 23, 2008, http://www.usgs.gov/newsroom/article.asp?ID=1980&from=rss_home/#.UAHtIHj3Ct8.

56 Aimee Duffy, “The Coming Boom in Arctic Drilling,” Institute of the North (April 4, 2012), http://www.institutenorth.org/assets/images/uploads/articles/The_Coming_Boom_in_Arctic_Drilling_-_DailyFinance.pdf.

57 In March 2013, Shell Oil decided to delay future until 2013 following problems with their drill ships at the end of the 2012 drilling season and subsequent pending federal investigations both civil and criminal. Additionally, Conoco-Phillips, citing the federal administrative hurdles in place also delayed drilling through 2014.

To adequately address the challenges of the new Arctic frontier, the U.S. needs to implement practical fixes such as enhanced Arctic capabilities in the maritime domain (search and rescue, communications links, aids to navigation, icebreaking vessels, oil spill clean-up), which will help the U.S., prepare for the eventual ice-free Arctic.⁵⁸ These fixes are traditional homeland security missions of the U.S. Coast Guard.⁵⁹ Although the Arctic could be an excellent place to strengthen multi-lateral relationships and enhance cooperation in these capabilities, the U.S. currently lacks the strategic vision and budget to even improve its own capabilities.⁶⁰ This lack of vision follows from the failure of the U.S. to ratify the 1982 U.N. Convention on the Law of the Sea (UNCLOS) and not having a lead agency for Arctic policy development and implementation for the reasons that are explored below.

1. The U.S. is Not a Signatory to the U.N. Convention on the Law of the Sea (UNCLOS)

UNCLOS is the maritime framework the other seven Arctic nations use for legal governance and cooperation in the region. One factor that separates the U.S. from other Arctic nations is the failure of the U.S. to ratify the treaty. This is evident when comparing the latest U.S. strategy to the seven other Arctic nations' policies. Since the remaining seven Arctic nations are all signatories to UNCLOS, it forms the foundation for their Arctic policies. In total, 156 nations have signed on to this agreement. that is the model for stability and dispute resolution in the maritime domain throughout the world. UNCLOS contains specific dispute resolution mechanisms for maritime boundary lines

⁵⁸ Conley and Kraut, "U.S. Strategic Interest in the Arctic An Assessment of Current Challenges and New Opportunities for Cooperation," (The distance from Europe to Asia will be cut by 20 percent since vessels will not traverse the Panama Canal), 26.

⁵⁹ U.S. Coast Guard missions, <http://www.uscg.mil/top/missions/>.

⁶⁰ Conley and Kraut, "U.S. Strategic Interest in the Arctic An Assessment of Current Challenges and New Opportunities for Cooperation," 26.

and resource dispute claims for the Arctic through arbitration.⁶¹ Without ratification, the U.S. cannot benefit from the assistance and protections membership brings.

There are a few conservative policy makers who believe UNCLOS is an impediment to U.S. sovereignty; they do not support the U.S. joining UNCLOS.⁶² But they are in the minority.⁶³ According to the University of Virginia Center for Oceans Law and Policy, the Secretary of Defense, Commandant of the Coast Guard, Chairmen of the Joint Chiefs of Staff and numerous elected officials support the U.S. joining UNCLOS.⁶⁴ Additionally, every president since Clinton has pushed for ratification, but the treaty has not survived the Senate, most recently in 2004.⁶⁵ The ratification of UNCLOS would help the U.S. gain greater influence, sovereignty, and improve strategic vision and cooperation in the Arctic region.⁶⁶ It appears there are a minority of influential members of the Senate who do not want the U.S. subject to the jurisdiction of an international tribunal (International Law of the Sea Tribunal), which accession would require.

The U.S. currently treats UNCLOS as customary international law, which means that where the U.S. can abide by the language of the treaty, it does. In practice, the U.S. recognizes the majority of the treaty as binding due to many years of custom, which renders most of the treaty as international law and therefore binding on all nations. Unfortunately, this does not allow the U.S. to participate in the dispute resolution

61 United Nations Convention on the Law of the Sea, Annex II, Commission on the limits of the Continental Shelf, 1982, Article 76, http://www.un.org/Depts/los/convention_agreements/texts/unclos/annex2.htm.

62 Thomas Wright, "Outlaw of the Sea: The Senate Republicans' UNCLOS Blunder," Brookings Institute (August 7, 2012). <http://www.brookings.edu/research/articles/2012/08/07-sea-law-wright>.

63 Jeremy Rabkin, "The Law of the Sea Treaty: A Bad Deal for America," Competitive Enterprise Institute, No.3 (2006), 1-2, <http://cei.org/pdf/5352.pdf>, <http://www.heritage.org/events/2011/09/mike-lee>.

64 For a listing of testimony see <http://www.virginia.edu/colp/los.html> and http://www.agiweb.org/gap/legis112/wateroceans_hearings.html.

65 Gail Harris, "U.S. must remove the UNCLOS Handcuffs," The Diplomat, March 23, 2012. <http://thediplomat.com/2012/03/23/u-s-must-remove-unclos-handcuffs/>.

66 Ibid., 26. See also Ronald O'Rourke, Changes in the Arctic: Background and Issues for Congress, also Charles Ebinger and Zambetakis Evie, The Geopolitics of Arctic Melt. (International Affairs Vol. 85. June 2009), 1232, http://www.brookings.edu/~media/research/files/papers/2009/11/arctic_percent20melt_percent20ebinger_percent20zambetakis/11_arctic_melt_ebinger_zambetakis.pdf.

guidelines laid out in the treaty because these are not recognized as customary international law. The dispute resolution guidelines are relatively new in the course of history, so the only way to benefit from these provisions is to accede to the treaty. As a result, current maritime boundary line disputes in the Arctic with Canada must be dealt with on a bi-lateral level only and not under the dispute resolution mechanisms established under UNCLOS. This is duplicative, wasteful, and lacks predictability of eventual resolution. The tools and mechanisms of UNCLOS appear to be a better way to deal with dispute resolution as it is seen as the standard method of resolution by all signatories.

The U.S. and Canada have long been in dispute over the waters of the Northwest Passage, which Canada claims are internal waters not subject to the conventions of “innocent passage” as established under customary international law and UNCLOS, while the U.S. regards these waters as an international strait for navigational purposes, through which ships can pass without interference by the coastal state (Canada).⁶⁷ The Northwest Passage that crosses over North America would cut shipping routes between ports in Asia and U.S. east coast by nearly 5,000 miles.⁶⁸ Since the U.S. lacks standing under the treaty, it is arguing from a position of weakness with respect to the Northwest Passage and threat to Freedom of Navigation.

Furthermore, UNCLOS contains specific provisions for extended Outer Continental Shelf (OCS) claims. In the massive land grab for natural resource-rich areas that has been going on between the other seven Arctic nations, the U.N., as detailed in UNLCOS, is the arbiter. As a non-party, the U.S. is left out in the cold with respect to OCS claims. Although the U.S. abides by the rules of UNCLOS without having ratified it, it trails behind the remainder of the Arctic states on its policy and in asserting its

⁶⁷ United Nations Convention on the Law of the Sea, Annex II, Commission on the limits of the Continental Shelf, 1982, Article 19. “Passage is innocent as long as it is not prejudicial to the peace, good order or security of the coastal State. Such passage shall take place in conformity with this Convention and with other rules of international law.”

⁶⁸ Charles Ebinger and Evie Zambetakis, “The Geopolitics of Arctic Melt,” *International Affairs* Vol. 85 (June 2009): 1221, http://www.brookings.edu/~media/research/files/papers/2009/11/arctic_percent20melt_percent20ebinger_percent20zambetakis/11_arctic_melt_ebinger_zambetakis.pdf.

presence in the region.⁶⁹ Signing UNCLOS could prove to be an excellent framework for shaping U.S. Arctic policy and advancing the current blueprint for the region. As a principle participant in the 1982 UNCLOS treaty negotiations, it represents a structure that would be beneficial to U.S. security and safety interests. Unfortunately, a minority of powerful conservative politicians highjacked the argument. They believe that ITLOS is comparable to the ICC (which it is not). Unlike the ICC, the U.S. helped design ITLOS in the treaty negotiations.

Another argument for acceding to the treaty is that as of 2004, UNCLOS members have the ability to alter the terms of the treaty.⁷⁰ As a non-member, the U.S. cannot protect its interests or the hard work done by U.S. negotiators in the development of the 1982 treaty. The seven other Arctic nations have made UNCLOS a mainstay of their respective Arctic strategies. And while not a party to UNCLOS, the U.S. engages with the Arctic Council to ensure international cooperation in the region. UNCLOS's importance was summed up well in a May 2013 speech at the Center for Strategic and International Studies. Admiral Papp, the Commandant of the Coast Guard, stated, "to exercise leadership, improve our ability to influence outcomes, and effectively interact with other Arctic Nations, we urgently need the Senate to approve U.S. accession to the treaty."⁷¹

2. The U.S. is an Active Member of the Arctic Council

The Arctic Council is a high-level intergovernmental forum founded in 1996 that addresses issues faced by the eight Arctic governments (Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the United States) and the indigenous people

69 Charles Ebinger and Evie Zambetkis, "The Geopolitics of Arctic Melt," *International Affairs* Vol. 85 (June 2009): 1223, http://www.brookings.edu/~media/research/files/papers/2009/11/arctic_percent20melt_percent20ebinger_percent20zambetakis/11_arctic_melt_ebinger_zambetakis.pdf.

70 Citizens for Global Solutions, "The United States and the Law of the Sea," (undated), <http://globalsolutions.org/law-justice/law-sea-treaty>.

71 "Uncharted Ice: The U.S. Coast Guard's New Arctic Strategy," Speech by Admiral Robert Papp given at CSIS (May 21, 2013), <http://csis.org/multimedia/video-military-strategy-forum-admiral-robert-j-papp-jr-commandant-us-coast-guard>.

within those respective nations.⁷² The group grew out of the *Arctic Environmental Protection Strategy*.⁷³ NSPD-66/HSPD-25 states that the work of the Arctic Council, amongst other bodies, is beneficial to all nations, but should not become a “formal international organization.”⁷⁴ The U.S. position on the status of the Council has evolved. The newly released U.S. Arctic strategy states that the U.S. will “continue to emphasize the Arctic Council as a forum for facilitating Arctic states’ cooperation on myriad issues of mutual interest with its current mandate.”⁷⁵

The U.S. delegation on the Council contains a collection of U.S. agencies with Arctic responsibilities. Representatives come from DOE, DHS (represented by the Coast Guard), and the Department of State, who acts as the lead representative. The Council’s main mandates are sustainable development and environmental awareness.⁷⁶

In 2008, the Arctic Council signed the Ilulissat Declaration restating that all members were committed to UNCLOS and that a new legal regime specific to the Arctic was neither needed nor desired. Although the U.S. has not signed on to UNCLOS, it has stated affirmatively it is committed to the principles of the treaty and is against any expansion of the Council’s mandate.⁷⁷ Although the mandate has not been expanded, the group has accomplished significant multi-lateral progress. Recently in 2011, the Council passed the *Aeronautical and Maritime Search and Rescue (SAR) agreement*. The Arctic SAR agreement is a noteworthy milestone, since it is the first legally binding agreement

⁷² History of the Arctic Council. <http://www.arctic-council.org/index.php/en/about-us/arctic-council/history> (April 27, 2011).

⁷³ Ibid.

⁷⁴ National Security Presidential Directive-66 and Homeland Security Presidential Directive -25 (January 2009), III.C.2.

⁷⁵ “The National Strategy for the Arctic Region,” The White House, May 10, 2013, 9.

⁷⁶ Ibid., Chapter III.C.

⁷⁷ Ebinger and Zambetkis, *The Geopolitics of Arctic Melt*, International Affairs Vol. 85 (June 2009), 1226–1227.

signed and conferred under the authority of the Arctic Council.⁷⁸ On May 15, 2013, the group signed an oil spill response agreement for the pristine waters of the Arctic.⁷⁹

Despite raising awareness about Arctic issues, the group lacks any regulatory authority or the power to address military issues.⁸⁰ As a result, the Arctic Council is limited in overall effectiveness. Due to its limited mandate the council is a conduit for cooperation and consensus, rather than an overarching framework for Arctic policy between members. But the recent Arctic agreements on SAR and the oil spill response are beginning to shift the focus.

The enhanced international attention on the Arctic requires more expansive strategic thinking on the part of the U.S. (beyond the Arctic Council) to develop an approach regarding the new Arctic and the opportunities and challenges it presents. While the U.S. has been unable to move forward in an organized manner in the Arctic, the other Arctic nations have developed strategy, policy, and operational plans.⁸¹

⁷⁸ History of the Arctic Council, <http://www.arctic-council.org/index.php/en/about-us/arctic-council/history> (April 27, 2011).

⁷⁹ The Arctic Council, “Agreement on Cooperation on Marine Oil Pollution, Preparedness and Response in the Arctic,” The Arctic Council (May 15, 2013), <http://www.state.gov/r/pa/prs/ps/2013/05/209406.htm>. See also “Cozy amid the thaw: The Arctic Council Works Well—Because of the Region’s Riches” (March 24, 2012), <http://www.economist.com/node/21551029>.

⁸⁰ Conley and Kraut, “U.S. Strategic Interest in the Arctic An Assessment of Current Challenges and New Opportunities for Cooperation,” 13.

⁸¹ David Hayes, “Managing for the Future in a Rapidly Changing Arctic: A Report to the President,” Interagency Working Group on Domestic Energy Development and Permitting in Alaska (April 2013). http://arcticlcc.org/assets/resources/Managing_for_the_Future_in_a_rapidly_changing_arctic.pdf.

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III. CONSTRUCT THE ALTERNATIVES: THE OTHER NATIONS' ARCTIC STRATEGIES

The seven other Arctic nations have well-established and explicit plans for action in the Arctic. Based on the changing environmental conditions, potential economic opportunities, and the chance to establish Arctic sovereignty, the other Arctic nations including Canada, Denmark, Norway, Iceland, Sweden, Finland, and Russia have developed Arctic policies to ensure their nation's safety, security, natural resource, and sovereignty needs continue to be met in the region.⁸² All eight nations participate in the Arctic Council and advocate for it as a tool for communication and cooperation but the Council's actions are not binding and has yet to be tested or challenged by dissent. But the recent addition of the non-Arctic observers will challenge the group's ability to work together on common solutions.

Additionally, every nation has motivations for its specific policies such as sovereignty, expanding international influence, economic growth or security or a mixture of all. But, besides the U.S., they all rely upon UNCLOS as the central artery for Arctic governance and international cooperation. Nations such as Canada are moving ahead with building military bases and a deep-water port in the high latitudes of the Arctic.⁸³ According to U.S. Deputy Secretary of State, James Steinberg, the Arctic is a test case for of ability of the international community to meet the global disputes of the twenty-first century.⁸⁴ Unfortunately, the U.S. is the last nation to establish an Arctic policy and practice. As a result, it trails behind other Arctic nations and risks missing the opportunities the Arctic presents.

82 Conley and Kraut, "U.S. Strategic Interest in the Arctic An Assessment of Current Challenges and New Opportunities for Cooperation," 13–25. See also Young Oran, *Creating Regimes Arctic Accords and International Governance* (Cornell University Press, 1998), 30–35.

83 Rear Admiral David Gove, U.S. Navy "Arctic Melt: Reopening a Naval Frontier," *Proceedings Magazine*, February 2009, www.usni.org/print/4133.

84 Josh Rogin, "Who is in Charge of Arctic Policy?" *Foreign Policy*, May 7, 2010. http://thecable.foreignpolicy.com/posts/2010/05/07/who_s_in_charge_of_arctic_policy.

A. CANADA

According to Prime Minister Stephen Harper, “Canada’s Arctic is central to our identity as a northern nation. It is part of our history and it represents the tremendous potential of our future.”⁸⁵ Unlike the U.S., Canada’s Arctic ties are contiguous. Canada has taken a dual-track strategy of diplomacy and defense in the Arctic. In August 2010, Canada announced a new “Statement of Canada’s Arctic Policy,” which reaffirmed the government’s commitment to sovereignty in the Canadian Arctic, to economic and social development, to environmental protection, and to protection of indigenous peoples in the region.

The Canadian Arctic Policy is based in the nation’s *Northern Strategy* first introduced in 2007 and further developed in 2009. The four priority areas of the strategy are exercising Arctic sovereignty, protecting the nation’s environmental heritage, promoting social and economic development, and improving and devolving northern governance.⁸⁶

In 2012, Canada released its “Statement on Canada’s Arctic Foreign Policy: Exercising Sovereignty and Promoting Canada’s Northern Strategy Abroad.” The policy is firmly based on exercising sovereignty over Canada’s North as the foremost foreign policy priority.⁸⁷

1. Exercising Arctic Sovereignty

As an Arctic nation, Canada firmly understands the importance of ensuring and maintaining sovereignty over the 162,000 miles of its pristine northern coastline. Canada has plans to expand its military presence in the Arctic and to step up efforts to ensure sovereignty of claimed waters. The Canada First Defence Strategy contains plans for a

⁸⁵ No author, “Harper on Arctic: ‘Use it or Lose It,’” *Times Colonist* (July 10, 2007), <http://www.canada.com/topics/news/story.html?id=7ca93d97-3b26-4dd1-8d92-8568f9b7cc2a>.

⁸⁶ Minister of Indian Affairs and Northern Development and Federal Interlocutor for Métis and Non-Status Indians, “Canada’s Northern Strategy,” Government of Canada, 2009.

⁸⁷ Government of Canada, “Statement on Canada’s Arctic Foreign Policy: Exercising Sovereignty and Promoting Canada’s Northern Strategy Abroad,” Foreign Affairs and International Trade Canada, August 20, 2010. http://www.international.gc.ca/polar-polaire/canada_arctic_foreign_policy_booklet-la_politique_etrangere_du_canada_pour_arctique_livret.aspx?lang=eng&view=d.

\$100 million deep-water port in the Arctic, nearly a dozen patrol aircraft, as well as additional surveillance capability in order to expand Canada's maritime domain awareness in the region.⁸⁸

In May 2010, Canadian and Danish military leaders signed a memorandum of understanding on Arctic defense, security, and operational cooperation, committing the two countries to consultation, information exchange, visits, and exercises.⁸⁹

2. Sovereignty and Increased Military Presence

Operating in the Arctic is among the six core missions of the Canadian Defence Strategy.⁹⁰ In the summer of 2012, Canadian forces engaged in Operation NANOOK 12. It is a joint Royal Canadian Navy (RCN), Canadian Army, and Royal Canadian Air Force (RCAF) operation. These forces work alongside federal departments and provincial, territorial, regional, and international partners (United States and Denmark), to showcase not only Canada's presence in the Arctic, but demonstrate Canada's ability to respond to emergent situations in the high latitudes.⁹¹ The total task force is comprised of over 1250 personnel at a price tag of over \$16 million dollars (CAN).⁹² The agencies work under Canada Command and Joint Task Force (North). The operation has been conducted annually since 2007. The 2012 operation focused on response scenarios: For example, one exercise focused on detection and interception of a ship smuggling migrants through the Arctic maritime border.⁹³ These operations help Canada build interagency coordination and expand maritime domain awareness in the Arctic.

88 National Defence and Canadian Forces, "Canada First Defence Strategy," (May 2008), 17, http://www.forces.gc.ca/site/pri/first-premier/June18_0910_CFDS_english_low-res.pdf.

89 No author, "Canada and Denmark Sign Arctic Cooperation Arrangement," Marketwire, May 10, 2010, <http://www.army.forces.gc.ca/land-terre/news-nouvelles/story-reportage-eng.asp?id=4391>.

90 National Defence and Canadian Forces, "Canada First Defence Strategy," (May 2008), 17, http://www.forces.gc.ca/site/pri/first-premier/June18_0910_CFDS_english_low-res.pdf.

91 For a list of participants see "Operation NANOOK 2012," Office of the Prime Minister of Canada, August 24, 2012. <http://www.pm.gc.ca/eng/media.asp?id=4981>.

92 Meagan Fitzpatrick, "Arctic Military Exercise Targets Human-Smuggling 'Ecotourists,'" CBC News (August 24, 2012), <http://www.cbc.ca/news/politics/story/2012/08/24/pol-harper-north-tour-friday.html>.

93 Ibid.

Canada's main method of establishing sovereignty in the Arctic has been through the UNCLOS and participation in the Arctic Council. Canada ratified UNCLOS in 2003.⁹⁴ Canada is moving ahead with building military bases and a deep-water port in the high latitudes of the Arctic.⁹⁵ According to Canadian Deputy Secretary of State, James Steinberg, the Arctic is a test case for the ability of the international community to meet the global disputes of the twenty-first century.⁹⁶ Prime Minister Harper has been an advocate for a greater military presence in the Canadian Arctic. "Canada has a choice when it comes to defending our sovereignty over the Arctic; we either use it or lose it," Harper said in July 2007, after he announced the patrol ship program. "And make no mistake—this government intends to use it."⁹⁷

3. Arctic Council

In May 2013, Canada will assume the Chairmanship of the Arctic Council from Sweden through 2015. Canada was the first nation of the Arctic Council's eight member states to hold the Council's Chairmanship position in 1996. According to Canada's council members "our priorities focus on development for people in the north: responsible resource development, safe shipping, and sustainable circumpolar communities."⁹⁸

4. International Cooperation

Canada and the U.S. recently entered into an international agreement to expand joint operations in the Arctic. The accord stresses that the Arctic is a place where nations

⁹⁴ For a list of signatories of the U.N. Law of the Sea Convention see http://www.un.org/Depts/los/convention_agreements/convention_declarations.htm#Canada.

⁹⁵ Rear Admiral David Gove, U.S. Navy "Arctic Melt: Reopening a Naval Frontier," Proceedings Magazine, February 2009, www.usni.org/print/4133.

⁹⁶ Josh Rogin, "Who is in Charge of Arctic Policy?," Foreign Policy, 7 May 2010. http://thecable.foreignpolicy.com/posts/2010/05/07/who_s_in_charge_of_arctic_policy.

⁹⁷ David Pugliese, "Canada Ramps Up Arctic Arsenal," Defense News (June 25, 2012), <http://www.defensenews.com/article/20120625/DEFREG02/306250001/Canada-Ramps-Up-Arctic-Arsenal>.

⁹⁸ No author, "Arctic Council Chair met Canada's Minister for the Arctic Council for Discussions on the Arctic Council Chairmanship News," Arctic Council (March 11, 2013), <http://www.arctic-council.org/index.php/en/about-us/chairmanship-2/176-chairmanship-news/658-arctic-council-chair-meets-canada-s-minister-for-the-arctic-council-for-discussions-on-the-arctic>.

can work together peacefully, and the U.S. and Canadian forces will provide support in response to Arctic threats and hazards.⁹⁹

The objective is to expand U.S.-Canadian cooperation in the Arctic, chiefly in support of safety, security, and defense operations. Areas such as training, capabilities, research and development, science and technology, domain awareness, communications, and operations will promote a safe and secure Arctic region.¹⁰⁰

5. Protecting the Nation's Environmental Heritage

The Arctic is the one of the last frontiers in the world and is comprised of millions of square miles of pristine coastline, clean seas, and a healthy ecosystem containing a myriad of species of animals and sea life. To combat the effects of global warming on the fragile Arctic ecosystem, Canada has taken a proactive approach to protect the environment and its inhabitants. For example in July 2010, the Canadian Government started requiring that all vessels of a certain size report to the Canadian Coast Guard if transiting through the nation's Arctic waters. Required information includes vessel name, position and destination.¹⁰¹ The new regulations will be published in the *Northern Canada Vessel Traffic Services Zone Regulations. The actions by Canada, as the coastal state, are evidence of sovereignty, security and control over their waters.*

6. Promoting Social and Economic Development

The Canadian Arctic has enormous economic potential in tourism, trade and industry. As the ice recedes and the Arctic is transformed, Canada has started development of world-class diamond mines and exploitation of enormous oil and gas reserves. The unspoiled environment is attracting visitors from around the globe. Ottawa has taken action to encourage future economic exploration and development through the

⁹⁹ Donna Mills, "U.S., Canada Expand Arctic Cooperation, Military Training," American Forces Press Service, December 11, 2012, <http://www.defense.gov/news/newsarticle.aspx?id=118768>.

¹⁰⁰ Ibid.

¹⁰¹ Nancy Bishay, "Government of Canada Takes Action to Protect Canadian Arctic Waters," Transport Canada Press Release (June 22, 2010). <http://www.tc.gc.ca/eng/mediaroom/releases-2010-h078e-6019.htm>.

improvement of regulatory systems in the Arctic and investing in other critical infrastructure to draw citizens, investment, and industry in a sustainable manner.

7. Indigenous Relations

Canada, like Alaska, is comprised of many natives or First Nation peoples, thus the goal of Arctic development is to have a direct benefit to the native tribes and not adversely affect their way of life. Along with the economic development, the government is increasing access to vocational education, improved housing conditions, and better health care for the inhabitants of the Canadian high latitudes. The aim of the policy is to create and sustain a vibrant Arctic economy, with safe, healthy, and prosperous communities.¹⁰² For example, in 2011 the Canadian government provided funding for *ecoEnergy*, which will help mitigate the effects of climate change for Arctic communities. The 20 million dollars in funding will provide feasibility studies of renewable energy projects in addition to the design and construction of energy ventures incorporated within community buildings.¹⁰³

8. Improving and Devolving Northern Governance

Canada functions as a federation where the provincial governments and the federal government have separate jurisdictions of political authority.¹⁰⁴ Canada is also a democratic constitutional monarchy with a parliamentary type of government where the “Crown” is the basis of the judicial, legislative, and executive branches of

102 Published under the authority of the Minister of Indian Affairs and Northern Development and Federal Interlocutor for Métis and Non-Status Indians, “Canada’s Northern Strategy, Promoting Social and Economic Development,” Government of Canada, 2009, <http://www.northernstrategy.gc.ca/soc-dev/index-eng.asp>.

103 No Author, “Minister Duncan Announces more Support for Clean Energy Projects in Aboriginal and Northern Communities.” Aboriginal Affairs and Northern Development Canada Press Release. (31 August 31, 2011), <http://www.aadnc-aandc.gc.ca/eng/1314794535694/1314794741066>.

104. Canada is a democratic constitutional monarchy, with a Sovereign as head of State and an elected Prime Minister as head of Government. Canada has a federal system of parliamentary government: Government responsibilities and functions are shared between federal, provincial and territorial governments. For more information on Canada’s form of government see <http://www.canada.gc.ca/aboutgov-ausujetgouv/structure/menu-eng.html> accessed on 01 June 2013.

government.¹⁰⁵ “Devolution” is the transfer of province-like responsibilities from the Canadian federal government to the territories. Recently, territorial governments of the high latitudes have taken on greater responsibility for education, health care, and social services in their respective regions. One notable exception to the devolution was federal control over lands and resource management.¹⁰⁶ In April 2003, the Yukon Territory signed a devolution agreement on lands and resource management with Ottawa. The Northwest Territories is progressing towards a similar agreement.¹⁰⁷

Another area of focus is self-government and land claims. Currently, 11 of 14 Yukon First Nations have signed self-government agreements and settled claims. The majority of Northwest Territories is covered by the Comprehensive Land Claims Agreements that give native people authority to manage both their lands and resources.¹⁰⁸ The Self-Government Agreements are legal instruments unique to Canada. The agreements call for First Nation governments to govern themselves, their citizens, and their land. The powers include land and resource management as well as local bylaws and zoning.¹⁰⁹

The Nunavut Land Claims Agreement led to the creation of Canada’s newest territory in 1999, providing Inuit of the Eastern Arctic with some 1.9 million square kilometers (20 percent of Canada) in the largest Aboriginal land claim settlement in Canadian history.¹¹⁰ Similar progress has been made on agreements in other Arctic

¹⁰⁵ The Queen or sovereign is the head of state in Canada. The Governor General of Canada represents the sovereign, and most of the powers and authority of the sovereign have been delegated to the Governor General. The role of the Canadian Governor General is mostly symbolic and ceremonial. <http://www.canadafaq.ca/what+type+of+government+does+canada+have/> See also <http://canadaonline.about.com/cs/gg/a/ggrole.htm>.

¹⁰⁶ Government of Canada, “Canada’s Northern Strategy, Improving and Devolving Northern Governance,” Government of Canada, June 4, 2013, <http://www.northernstrategy.gc.ca/gov/index-eng.asp>.

¹⁰⁷ Ibid.

¹⁰⁸ General Briefing Note on Canada’s Self-Government and Land Claims Policies and the Status of Negotiations, “Aboriginal Affairs and Northern Development Canada,” (January 2012), 40–41, http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ/STAGING/texte-text/al_ldc_ccl_gbnjan2012_1324327698586_eng.pdf.

¹⁰⁹ Yukon Native Language Center, “Yukon First Nations Programs and Partnership Units,” June 21, 2013. <http://www.yesnet.yk.ca/firstnations/fnationgroups.html>.

¹¹⁰ Government of Canada, “Canada’s Northern Strategy, Improving and Devolving Northern Governance,” (2007), <http://www.northernstrategy.gc.ca/gov/index-eng.asp>.

people such as the Inuit living in Labrador and in the Nunavik region of Northern Quebec. The Labrador Inuit Land Claims Agreement contains defined rights in and to territory in northern Labrador. The Inuit of Nunavik Agreement in Principle, signed in August 2007, calls for the creation of a new form of public regional government tailored to the needs of the Nunavik people. The Nunavik Inuit Land Claim Agreement received Royal Assent in February 2008.¹¹¹

9. Summary and Analysis

Canada has had an evolving Arctic Strategy for many years. In recent years the focus has changed as former areas of perennial ice have become seasonal, and vessels have begun to ply the North West Passage more frequently. Canada's detailed Arctic strategy contains four priority areas including Arctic sovereignty, protecting the nation's environmental heritage, promoting social and economic development, and improving and devolving Northern governance. Canada has been a strong advocate of the UNCLOS treaty and the Arctic Council to build consensus and ensure fair dealing with both her neighbors as well as the First Nations Peoples living above the Arctic Circle. Canada has traditionally had military units, vessels and aircraft stationed in the Arctic but their strategy calls for that to grow to ensure safety, security, and awareness in the region. The Northwest Passage, like the Northern Sea Route in Russia, provides Canada an opportunity to build global clout and influence while bolstering the economy of the frozen north. Canada is building and improving her Arctic infrastructure as well and improving the lives of the native inhabitants, which is a lesson the U.S. should apply to its Arctic policy because the U.S. has less infrastructure in the Arctic than Canada.

B. RUSSIAN FEDERATION

Russia has been the most active country in the Arctic. This may be due to the fact that Russia has the greatest territorial interest in the region with over 4,000 miles of Arctic coastline. Although most of the Russian Arctic is currently undeveloped, Russia sees great security and economic opportunity in the region. Unlike the other Arctic

¹¹¹ Ibid.

nations that have been developing a specific Arctic policy, to the Russian Federation the Arctic is Russia's policy.

In February 2013, Russian unveiled its long-term strategic program for the Arctic. Signed by President Vladimir Putin, the plan includes development of an integrated transport system in the Arctic, establishment of a research and development center and technological sector, enhanced international cooperation, and the preservation of the Arctic as a zone of peace.¹¹²

The new Arctic policy is very broad ranging and encompasses almost every aspect of Arctic issues. Specifically, it guarantees federal assistance for infrastructure development in transportation, commercial industry, and the energy sector. During the first stage (2013–2015) of the policy implementation, the Russian Federation intends to concentrate on communications and information infrastructure development in the Arctic, launching search and rescue stations along the Northern Sea Route, expansion of the Coast Guard, and development of a fully integrated nation-wide program for environmental monitoring of the Russian Arctic.¹¹³

1. Military Presence to Promote Security

In March 2009, the Russian Federation announced plans to establish a military force to protect its Arctic interests, due to the growing strategic importance of the Arctic region.¹¹⁴ The National Security Strategy calls for increased border and defense security

¹¹² Russian Federation, "The Development Strategy of the Arctic Zone of the Russian Federation," (February 20, 2013).

¹¹³ Trude Pettersen, "Russia Launches Program on Arctic Development to 2020," Barents Observer, February 20, 2013, <http://barentsobserver.com/en/arctic/2013/02/russia-launches-program-arctic-development-2020-20-02>.

¹¹⁴ Charles Ebinger and Evie Zambetakis. "The Geopolitics of Arctic Melt," International Affairs Vol. 85. (June 2009), 1228, http://www.brookings.edu/~media/research/files/papers/2009/11/arctic-percent20melt-percent20ebinger-percent20zambetakis/11_arctic_melt_ebinger_zambetakis.pdf.

in the Arctic.¹¹⁵ Like her Arctic partners, Russia plans to increase infrastructure and deep-water ports while developing even greater icebreaking capability.¹¹⁶

2. UNCLOS

Like the other Arctic nations, except the U.S., Russia is a signatory to UNLOS. The USSR became a signatory in 1982; UNCLOS was later ratified in 1997 by the Russian Federation.¹¹⁷ Russia has utilized the provisions of UNCLOS to advance sovereignty, especially along the Northern Sea trade route, which passes through Russia's northern Exclusive Economic Zone (EEZ). Russia is using UNCLOS provisions in an attempt to exercise control over the Northern Sea route by requiring vessels to seek permits and submit their vessels to inspection due to the ice conditions. This is considered an overreach of authority by the U.S., which is protesting the plans.¹¹⁸ As a non-party to UNCLOS, the U.S. cannot utilize the established means of the treaty to protest.

3. Arctic Council

Russia has also been an active and, at times, controversial member of the Arctic Council. In 2012, Russia suspended their indigenous group assigned to work with the Council.¹¹⁹ Besides the eight member nations, there are six aboriginal groups that represent 250,000 native inhabitants of the Arctic across the region. These groups are not allowed to vote on Council matters, but are consulted on activities and participate in the meetings. The suspension likely reflects a deep division between the Russian delegation

¹¹⁵ Russian Federation, "The National Security Strategy of the Russian Federation until 2020," (Russian Federation, May 13, 2009), 42.

¹¹⁶ Conley and Kraut, U.S. Strategic Interest in the Arctic An Assessment of Current Challenges and New Opportunities for Cooperation, 25.

¹¹⁷ United Nations list of signatories to the Law of the Sea Convention, [http://www.un.org/Depts/los/convention_agreements/convention_declarations.htm#Russian percent20Federation percent20Upon percent20ratification](http://www.un.org/Depts/los/convention_agreements/convention_declarations.htm#Russian%20Federation%20Upon%20ratification).

¹¹⁸ Oleg Vukmanovic and Balazs Koranyi, "Russia's revival of Arctic Northern Sea Route at least 10 years away," (Reuters January 25, 2103). http://www.thestar.com/business/2013/01/25/russias_revival_of_arctic_northern_sea_route_at_least_10_years_away.html.

¹¹⁹ Bob Weber, "Russia Stuns Arctic Council by Suspending Aboriginal Group From Meetings," The Globe and Mail (November 15, 2012), <http://www.theglobeandmail.com/news/politics/russia-stuns-arctic-council-by-suspending-aboriginal-group-from-meetings/article5360638/>.

and its aboriginal group about how to manage Arctic issues. It is the first time in the Council's history that a party has been shut out of the proceedings.¹²⁰

4. Economic and Natural Resource Development

Russia is keenly interested in the rich natural resources, such as oil and gas, in the Arctic that may lie well beyond the traditional limits of the Exclusive Economic Zone (EEZ). Russia is actively engaged in numerous studies to support the nation's claim for an extended continental shelf to the UN Commission on the Limits of the Continental Shelf. A previous claim was rejected in 2001.

According to the 2009 National Security Strategy of the Russian Federation, Russian prosperity and global competitiveness are dependent upon the wealth of resources in the Arctic. The report estimates that 20 percent of the nation's gross domestic product and 20 percent of exports come from the Russian Arctic.¹²¹

Like Canada's claim to the NWP, Russia claims that the NSR, which runs along the nation's entire northern border, is within the country's jurisdiction and subject to its national laws.¹²² The NSR is a potential major shipping route as it may significantly reduce shipping times and distance from Asia to Europe. Control of the route would expand Russia's strategic importance in the world.

Due to the large amount of Arctic coastline, natural resources, and economic opportunities, there is little doubt Russia will continue to focus on the Arctic. "For Russia, it is difficult to exaggerate the potential geopolitical and geo-economics importance of the Arctic."¹²³

¹²⁰ Ibid.

¹²¹ Dmitry Medvedev, Speech at meeting of the Russian Security Council on Protecting Russia's National Interest in the Arctic, September 17, 2008, http://archive.kremlin.ru/eng/text/speeches/2008/09/17/1945_type82912type82913_206564.shtml.

¹²² Russian Federation, "The National Security Strategy of the Russian Federation until 2020," (May 13, 2009), 42.

¹²³ Vukmanovic and Koranyi, "Russia's Revival of Arctic Northern Sea Route at Least 10 Years away," Reuters (January 25, 2103).

5. Summary and Analysis

Russia's motivations in the Arctic are the potential economic benefit of untapped energy resources of the extended continental shelf, and the ability to exert influence and control over the now navigable NSR. As the largest nation in the Arctic, the opening of the region will increase Russia's sphere of influence outside of the Arctic. Russia's treatment of its aboriginal Arctic people is unfortunate and a lesson on how not to coordinate and partner on the world stage. Unlike the U.S., Russia is forward leaning on Arctic issues and has been aggressively placing resources in the Arctic, including military personnel, ships, and to ensure sovereignty and control in meeting their Arctic objectives.

C. KINGDOM OF DENMARK

Denmark has taken a multi-track approach to Arctic policy. The rapidly changing natural environment drove the policy. The Kingdom of Denmark Strategy for the Arctic 2011–2020 is based on four principals: development that benefits inhabitants of the Arctic, responsible decision-making regarding use of resources and environmental protection, security, and international cooperation.¹²⁴ The Kingdom of Denmark includes Denmark, Greenland, and the Faroe Islands. The plan calls for increased scientific research, expanded military presence in Greenland, economic development, and support of the use of UNCLOS as the legal framework in the Arctic.

In 2008, the Danes hosted an Arctic conference to advance the idea of sustainable Arctic development and climate change.¹²⁵ The “greening” of the Arctic will lead to greater economic opportunities in Greenland. For example, the Danes would look to develop the vast precious metals and petroleum resources available in Greenland. This will lead to increased jobs and infrastructure development.¹²⁶

124 Kingdom of Denmark, “Denmark, Greenland, and the Faroe Islands: Kingdom of Denmark Strategy for the Arctic 2011–2020,” (Ministry of Foreign Affairs of Denmark, Greenland and the Faroe Islands, August 2011) at 10. <http://uk.nanoq.gl/~media/29cf0c2543b344ed901646a228c5bee8.ashx>.

125 Nikolaj Petersen, “The Arctic as a New Arena for Danish Foreign Policy: The Ilulissat Initiative and its Implications,” (Danish Foreign Policy Yearbook 2009, Danish Institute for International Studies, 2009), 55, http://www.diiis.dk/graphics/Publications/Books2009/Yearbook2009/Yearbook_2009_web.pdf.

126 Conley and Kraut, “U.S. Strategic Interest in the Arctic An Assessment of Current Challenges and New Opportunities for Cooperation,” Center for Strategic and International Studies, April 2010), 20.

1. Sovereignty and Security

One of the main priorities in the Dane's Arctic Plan is to ensure a safe, secure, and peaceful Arctic through the exercise of sovereignty, surveillance, and maritime safety. To reach this goal, the Danes are planning to expand their military presence in the region. The Armed Forces North Atlantic command will change, and the Greenland Command and the Faroe Command will be merged into a joint service Arctic Command.¹²⁷ This will allow for better command and control over security and defense forces in the Arctic.

The Danish Defence Agreement 2010–2014 contains specific provisions on Greenland and the Arctic. The agreement calls for the creation of an Arctic Response Force to meet to ever growing security needs in the region.¹²⁸ The Arctic Response Force will undertake a variety of missions mainly geared at upholding sovereignty and arctic domain awareness.¹²⁹

Denmark is planning a \$117 million military upgrade to facilities on Greenland to build surveillance and sovereignty through increased maritime air domain awareness.¹³⁰ The plan also calls for a study of maritime traffic in the area around Greenland to ensure safety of the maritime environment.¹³¹ With the increase in marine traffic in the Arctic, the risk of ship collisions, oil spills, and stranded vessels and mariners requiring search and rescue assistance, will increase as well. The Danes are planning a 2014 comprehensive review of armed forces to look for opportunities for military cooperation with the other Arctic nations.¹³²

127 Kingdom of Denmark, "Denmark, Greenland and the Faroe Islands: Kingdom of Denmark Strategy for the Arctic 2011–2020," 20, <http://uk.nanoq.gl/~media/29cf0c2543b344ed901646a228c5bee8.ashx>.

128 Danish Ministry of Defence, Danish Defence Agreement 2010–2014. (June 24, 2009), 12, <http://merln.ndu.edu/whitepapers/Denmark2010-2014English.pdf>.

129 Kingdom of Denmark, "Denmark, Greenland and the Faroe Islands: Kingdom of Denmark Strategy for the Arctic 2011–2020," 20.

130 Danish Ministry of Defence, Danish Defence Agreement 2010–2014. (June 24, 2009), 12,

131 Kingdom of Denmark, "Denmark, Greenland and the Faroe Islands: Kingdom of Denmark Strategy for the Arctic 2011–2020," 20.

132 Ibid., 20.

2. Respectful Development of Resources and Environmental Protection

The Kingdom of Denmark sees the thawing of the Arctic as an opportunity to exploit the vast natural resources in the sea, on the land, and in the land. Greenland contains a substantial amount of mineral and oil/gas deposits. The plan outlines Denmark's intention to develop the natural resources, while ensuring compliance with the "best international practices" and under the highest standards of safety health, environment and transparency.¹³³

Exploitation will be conducted with a firm understanding of the fragile and changing environment of the Arctic. Development should contribute to economic development including jobs for residents of the region. Denmark has experienced a growth in Arctic renewable energy as well. Through the development and expansion of hydroelectric power systems, Denmark plans to have 30 percent of all electricity production from renewable sources by 2020.¹³⁴ Denmark has been at the vanguard of the global climate change discussion and the effect on the environment. The government is closely studying the planned activities and endeavors to watch for changes to animal and plant habitats and migration routes.

3. International Cooperation (UNCLOS and the Arctic Council)

Denmark's vision for the future of the Arctic is based on ensuring peaceful cooperation between Arctic and non-Arctic nations to ensure proper exploitation of resources with within established international forums. Denmark's main method of establishing sovereignty in the Arctic has been through UNCLOS and participation in the Arctic Council. Denmark ratified UNCLOS in 2004.¹³⁵ UNCLOS is the framework for both coastal states and flag states for navigation, development and exploitation of resources and conflict resolution.

¹³³ Ibid., 24.

¹³⁴ Ibid., 30.

¹³⁵ United Nations lists of signatories to the Law of the Sea Convention.
http://www.un.org/Depts/los/convention_agreements/convention_declarations.htm#Denmark
percent20Upon percent20ratification.

Denmark has been an active and vocal participant on the Arctic Council, and it is a principle objective of the kingdom to build cooperation within the group. Denmark was instrumental in the development of the Arctic Search and Rescue (SAR) agreement for the Arctic.¹³⁶ Denmark served as the chair of the Council from 2009–2011. During its tenure, Denmark hosted a Foreign Ministers meeting in 2011 where the Nuuk Declaration was adopted. The Nuuk Declaration set out the role and criteria for Council observers, established the permanent secretariat in Norway, and established a task force to deal with Arctic oil spills.

In 2010, Denmark strongly advocated for the Council to allow for greater observer status for non-Council members. The Danes argued the changing Arctic affects more than the eight nations that ring the North Pole, and as a result “giving other nations some kind of formal observer status on the Arctic Council may be the best way to ensure its continuing influence—allowing other countries inside the tent may be the best way to keep it standing.”¹³⁷ Due to the mineral riches contained in Greenland, China has been lobbying Denmark very hard for assistance in getting permanent observer status on the Council.

4. Summary and Analysis

The Kingdom of Denmark has a comprehensive Arctic policy that includes a greater sovereignty with an expanded military presence in Greenland, more scientific research to manage the rapidly changing environment, economic development of oil/gas and minerals, and support of the use of UNCLOS as the legal framework in the Arctic. Denmark’s Arctic policy is focused on mineral exploration to build economic growth in a sustainable manner. Greenland’s vast array of mineral deposits has been the focus of the developing world, especially China, who is looking to meet demand in rare earth metals. This has driven Denmark to favor opening up the Arctic Council to other nations. As with the rest of the Arctic nations, Denmark believes in the strength of the Arctic Council to

¹³⁶ Danish Ministry of Defence, Danish Defence Agreement 2010–2014 (June 24, 2009), 52.

¹³⁷ “Arctic Council Must Warm to Others: Denmark,” *The Canadian Press* (May 31, 2011), <http://www.ctvnews.ca/arctic-council-must-warm-to-others-denmark-1.517367>.

reach collaborative solution to Arctic problems such as search and rescue and oil spill response. Unlike her cousin Iceland, Denmark is planning for a massive Arctic military build-up to ensure both MDA and sovereignty in the region. The U.S. should emulate Denmark's military build-up in the Arctic to ensure maritime safety and security.

D. NORWAY

In Norway, development in the Arctic has been the government's most important foreign policy priority. Norway's High North strategy was initially announced in December 2006.¹³⁸ Critics consider Norway's plan "a very practical, results-oriented Arctic strategy" that is advanced as compared with Russia, Canada, Denmark, and the U.S.¹³⁹

Norway has been on the forefront of Arctic policy development through a balance of diplomatic and military efforts. Unveiled in 2006, the High North Strategy is Norway's comprehensive geopolitical and regional policy. Norway's policy lies in the vast economic resources (oil and gas), fisheries, environmental governance, and military upgrades.¹⁴⁰ Norway understands that sustainability of natural resources, such as fisheries, can only be done through close coordination. As a result, a focus of the plan is cooperation and communication with Norway's neighbor to the east, and former Cold War foe, the Russian Federation.¹⁴¹

Norway is also shifting military forces to the Arctic in a sign of security and sovereignty over the region. The Norwegian joint operational headquarters and Army staff headquarters were moved above the Arctic Circle. New frigates and jets were also

138 Norwegian Ministry of Foreign Affairs, The Norwegian Government's High North Strategy (December 2006), <http://www.regjeringen.no/upload/UD/Vedlegg/strategien.pdf>.

139 Daniel Buikema Fjaertoft, "Norwegian Grand Strategy and the Arctic," Global Brief (June 27, 2011), <http://globalbrief.ca/blog/2011/06/27/norwegian-grand-strategy-and-the-arctic/>.

140 Norwegian Ministry of Foreign Affairs, The Norwegian Government's High North Strategy (December 2006), <http://www.regjeringen.no/upload/UD/Vedlegg/strategien.pdf>.

141 Ibid., 17.

transferred up to the Arctic town of Bardufoss from the political capital of Oslo.¹⁴² Changes such as these exhibit the importance Norway is placing on the region for the future of the country.

On March 12, 2009, Norway released the report “New Building Blocks in the North,” which identifies seven priority areas: climate and the environment, monitoring-emergency response-maritime safety in northern waters, sustainable development of offshore petroleum and renewable marine resources, economic development, infrastructure, sovereignty and cross-border cooperation, and the welfare of indigenous peoples in the Arctic.¹⁴³

As sign of Norway’s commitment to the Arctic region, the 2011 central government budget called for a total of NOK 1.2 billion to be set aside for projects in the High North, a significant portion of which was earmarked for research.¹⁴⁴ The priorities are initiatives in the areas of health, the environment, education, and research.

1. UNCLOS and International Cooperation

On the international front, Norway is a signatory to UNCLOS and ratified the treaty in 1996. Norway treats UNCLOS as the blueprint for international and domestic Arctic governance and management. The Norwegian Arctic is teeming with oil and gas, and the government is utilizing UNCLOS as the method of securing the nation’s stake. Norway’s UNCLOS claims from 2009 have been roundly supported internationally. Norway’s Statoil (the country’s semi-national oil company), France’s Total, and Russia’s Gazprom, are working on a joint development project in the Arctic. Additionally, Norway and Russia brought finality to their 40-year-old Arctic maritime border dispute.¹⁴⁵

¹⁴² “Norwegian Army Moves north,” Barents Observer (August 5, 2009), <http://barentsobserver.com/en/node/18103>.

¹⁴³ New Building Blocks in the North (March 2009), http://www.regjeringen.no/upload/UD/Vedlegg/Nordområdene/new_building_blocks_in_the_north.pdf.

¹⁴⁴ Norwegian Ministry of Foreign Affairs, “NOK 1.2 Billion for Efforts in the High North for 2011,” press release, October 5, 2010, http://www.regjeringen.no/en/dep/ud/press/news/2010/high_north_efforts.html?id=619032.

¹⁴⁵ Buikema Fjaertoft, “Norwegian Grand Strategy and the Arctic,” Global Brief (June 27, 2011).

2. Role of the Arctic Council in Norway

Norway has also been a very active member of the Arctic Council. Norway served as secretariat of the council from 2007–2013. Most recently, Norway pushed for inclusion of China into the council as an observer. China would join Italy, Japan, Korea, Singapore, India, and the European Union (EU) who are all seeking official observer status as well. According to Norway’s Minister for Foreign Affairs, Espen Barth Aide, “We want people to join our club. That means they will not start another club.”¹⁴⁶ Norway has emphasized the important role of the Arctic Council; and by expanding the tent, the Council not only remains relevant, but also is the forum for all Arctic issues.

3. Summary and Analysis

Norway’s Arctic Strategy is a well-developed plan of action, which could be a lesson for U.S. policy makers. Unlike the U.S., Norway has always identified strongly with the Arctic and is dedicating resources and funding for Arctic projects. In order to build influence in the region, Norway has pushed to expand the Arctic Council to other nations. Through UNCLOS’ dispute resolution mechanism, Norway has been working to settle maritime border disputes with her neighbors in a manner that would likely not be possible in simply bi-lateral talks. Norway’s contemporary Arctic strategy is focused on cooperation with Arctic neighbors, not competition. This will be critical for ensuring sustainable natural resource management, security, and for upholding UNCLOS as a framework for Arctic governance.

E. SWEDEN

Released in 2011, Sweden’s Arctic policy represents the first policy the nation has adopted for the region and is based on four priorities. They include: a better understanding of the effects of climate and the Arctic environment, capitalization of economic opportunities, development in the region, and the protection of indigenous

¹⁴⁶ Brugard Morten, “Norway says yes to China in Arctic Council”, Barents Observer. (January 22, 2013), <http://barentsobserver.com/en/arctic/2013/01/norway-says-yes-china-arctic-council-22-01>.

people of the Arctic.¹⁴⁷ International cooperation (UN, EU, and Arctic Council) and bilateral channels are avenues to achieve Arctic governance.

1. International Cooperation

Sweden has an important role to play in both multilateral and bilateral discussions. The strategy is based on the understanding that climate change creates both new challenges and opportunities in the far north. Sweden is promoting economically, socially, and environmentally sustainable development in the Arctic region while their security policy is anchored in mutual assistance and avoiding conflict.¹⁴⁸

Sweden was the chair of the Arctic Council from 2011 until 2013. Sweden is currently chairing the Arctic Council's Sustainable Development Working Group and the Eco-System Based Management Working Group.¹⁴⁹ Sweden's goal is to strengthen the Arctic Council both "institutionally and politically."¹⁵⁰

2. Indigenous People

Sami are the indigenous people of the Swedish Arctic. Twenty thousand Sami currently live in Sweden. Sweden endeavors to ensure Sami people have an opportunity to preserve and develop their identity, culture, and traditional way of living.¹⁵¹ As a result, Sweden ensures active participation by indigenous people in the decision-making process and future plans for the Arctic.

3. Climate Monitoring

An extensive environmental monitoring study on Arctic temperature, meteorology, ice-thaw, plants, and animal life has been in progress in the Swedish Arctic

¹⁴⁷ Kingdom of Sweden, "Sweden's strategy for the Arctic region," Government Offices of Sweden. (2011), <http://www.government.se/content/1/c6/16/78/59/3baa039d.pdf>.

¹⁴⁸ The Arctic Council, "Sweden," <http://www.arctic-council.org/index.php/en/about-us/member-states/sweden>.

¹⁴⁹ Ibid.

¹⁵⁰ Kingdom of Sweden, "Sweden's strategy for the Arctic region," Government Offices of Sweden. (2011), 19. <http://www.government.se/content/1/c6/16/78/59/3baa039d.pdf>.

¹⁵¹ Ibid., 41.

for almost 100 years. Sweden's north houses research stations in Abisko and Tarfala as well as the EISCAT12 scatter radar facility in Kiruna. These sites draw scientists and researchers from around the globe.¹⁵²

4. Marine Transportation

Sweden possesses leading expertise in shipping in Arctic conditions. Sweden has long understood that efficient ice-breaking operations are required to promote maritime safety, maritime domain awareness, and improve accessibility for research and commerce. Swedish icebreakers are able to support increasing commercial shipping in the Arctic as well as help with both the monitoring of the vulnerable marine environment and Arctic research. The Swedish Maritime Administration's Polar Research Secretariat gives Sweden plenty of scope to perform marine research expeditions in the Arctic with the icebreaker Oden.

5. Summary and Analysis

Sweden is approaching Arctic governance through a variety of forums: UN (through UNCLOS), EU, and the Arctic Council. Traditional skills and competencies in polar icebreaking put Sweden in position to ensure MDA and advance economic development in the region. Swedish climate monitoring will help the rest the Arctic and the world better understand the dynamic conditions underway in the region. Sweden's Arctic strategy provides specific goals the nation is looking to achieve in the region as lesson the U.S. can take apply to its Arctic planning.

F. FINLAND

Finland published its Strategy for the Arctic region in July 2010. The strategy details the region's security, environment, economy, infrastructure, indigenous people, and international institutions. The goal of the policy is to provide further research, bolstering of the Arctic Council, and advancement of the European Union's (EU) Arctic policy.

¹⁵²The Arctic Council, "Sweden," <http://www.arctic-council.org/index.php/en/about-us/member-states/sweden>.

The Strategy highlights the importance of international relations in ensuring long-lasting peace, security, and development of the Arctic.¹⁵³ The policy is broken out into six principal areas: climate, economic activities, transport/infrastructure, indigenous peoples, regional/international cooperation, and EU objectives.

1. Environment and Climate

Finland understands the importance of climate change in the Arctic. The natural resources that are now available due to receding ice must be mined, drilled, and harvested via sustainable means and methods if they are to be used in an environmentally sustainable way.¹⁵⁴ Finland supports measures that assist Arctic peoples in adapting their lifestyles to the changing environment. For example, the changing climate will affect reindeer herds and those who depend on the animals for sustenance.¹⁵⁵ Finland is conducting studies to assist the native herders.

2. Economic Activities

Like her Arctic neighbors, Finland plans to utilize the opportunity of a changing Arctic for research, development, and education. The nation plans to capitalize on Finnish expertise in marine transportation and ship manufacturing to spur economic activity. Finland is working with Russia to develop oil and gas in the Arctic region. In 2009, Finland opened one of Europe's largest gold mines. Tourism is also expected to grow in the Murmansk region as well as in Lapland and Oulu.¹⁵⁶ Finland is putting plans in place to profit economically from the receding ice.

3. Transport/Infrastructure

Finland plans to further develop transportation, communications, and logistics hubs across the Arctic and between her Arctic neighbors. Working through the IMO,

153 Republic of Finland, "Finland's Strategy for the Arctic Region," Prime Minister's Office Publication (2010), 7, <http://formin.finland.fi/public/download.aspx?ID=63216&GUID=percent7BC92863F7-1188-4975-9CC8-34EA16C26D07 percent7D>.

154 Ibid., 9.

155 Ibid., 14.

156 Ibid., 19.

Finland is striving to create better standards for Arctic shipping to ensure the safety of seafarers, vessels, and the environment of the north.¹⁵⁷ Shore-side, Finland wants to create better connections and access between villages, towns, and ports. The Finns would also like to develop cross-border connections with the Russian Federation to include air and seaport hubs.¹⁵⁸

Finland regards UNCLOS as the means to coordinate future Arctic shipping. In order to combat a potential oil spill, or undertake a mass search and rescue case, Finland has properly equipped and prepared its Border Guard to respond in the Arctic.¹⁵⁹ Their presence may mitigate maritime accidents and speed oil spill response. A key tool in prevention of marine accidents and response capability is the use of surveillance systems—both domestically and through international agreements—to ensure the safety of the Arctic marine transportation system.

4. Treatment of Indigenous People of the Arctic

The Sami are the only indigenous people of Europe, and nearly 10,000 live in Finland. Finland recognizes the inherent right of the Sami to participate in Arctic decision-making, including participation on the Arctic Council. Sami culture and language are protected under the nation's constitution.¹⁶⁰ Finland's objective is to improve the living conditions of the Sami people through sustainable development of the Arctic region.¹⁶¹

5. Regional and International Cooperation

Although Finland is a landlocked Arctic nation, it has been a very vocal supporter of utilizing UNCLOS to resolve all claims concerning the continental shelf and the deep

¹⁵⁷ Ibid., 24,28.

¹⁵⁸ Ibid., 25.

¹⁵⁹ Ibid., 29.

¹⁶⁰ Ibid., 31.

¹⁶¹ The Arctic Council, Finland Profile, May 2, 2011, <http://www.arctic-council.org/index.php/en/about-us/member-states/finland>.

seabed.¹⁶² Additionally, Finland opposes obstructions to maritime traffic, such as the intention of the Russian Federation to charge transport fees for vessels utilizing the northern sea routes. Rather, Finland wants any fees collected to support marine safety in the Arctic.¹⁶³

6. Arctic Council

Finland believes strongly in the Arctic Council and wants to continue the momentum created by the work of the group. Finland was a pioneer in Arctic coordination and protection of the environment. Finland engaged in multilateral Arctic cooperation in the 1960s along with other Nordic countries in the North Calotte cooperation.¹⁶⁴ The work led to the establishment of the Barents Euro-Arctic Council in 1993, which also included the Russian Federation and the newly formed European Union.¹⁶⁵

Following the fall of the Soviet Union, Finland organized meetings between the eight Arctic nations. Later, Finland spearheaded the Ministerial Conference in Rovaniemi in 1991. The conference was a landmark event as it was the first ministerial meeting of the eight Arctic countries.¹⁶⁶ Finland was integral in the 1993 founding of the Arctic Council and remains a key player today. Most recently, Finland has exhibited support for the European Union application for admittance as a permanent observer member of the Arctic Council.¹⁶⁷

¹⁶² Finland's Strategy for the Arctic Region. Prime Minister's Office Publication (2010), 11.

¹⁶³ Ibid., 27.

¹⁶⁴ The North Calotte Council is a Nordic cross-border cooperation organization between Norway, Sweden, and Finland, funded mainly by the Nordic Council of Ministers, http://www.lapinliitto.fi/en/international/north_calotte_council.

¹⁶⁵ The Arctic Council, "Finland," <http://www.arctic-council.org/index.php/en/finland>.

¹⁶⁶ Ibid.

¹⁶⁷ Andrew Willis, "EU gets cold shoulder in the Arctic," (May 13, 2011). <http://euobserver.com/foreign/32331>.

7. Summary and Analysis

Finland has been a leader in building international cooperation and coordination in the Arctic, long before the U.S. began considering the strategic importance of the region. A large component of Finland's strategy is the significance of UNCLOS in the future vitality of the Arctic. This is lesson for U.S. policy makers. As a supporter and signatory of UNCLOS, Finland has been a proponent of the dispute resolution mechanisms of the treaty. Additionally, Finland is using the EU as a forum to better raise awareness of Arctic issues amongst fellow EU nations.

G. ICELAND

Driven by a changing Arctic environment, Iceland published its Arctic Policy in 2011. The main policy objectives include strengthening the Arctic Council; ensuring Iceland's status as an Arctic coastal state; promoting UNCLOS as the mechanism for Arctic governance; support to the indigenous peoples of the Arctic; international cooperation in the Arctic; and promotion of trade between Arctic nations.¹⁶⁸

1. UNCLOS

Iceland ratified UNCLOS in 1985, and the treaty forms a main pillar of the nation's Arctic Policy.¹⁶⁹ Under the policy, Iceland reaffirms that UNCLOS creates the basis for the settlement of potential disputes over jurisdiction and natural resource rights in the Arctic. UNCLOS provides the legal framework on navigation, fisheries, and exploitation of natural resources along the continental shelf, maritime demarcation, spill prevention, scientific research, and dispute resolution.

Within UNCLOS, the Commission on the Limits of the Continental Shelf (CLCS) has the function of considering applications by coastal states concerning the outer limits of the continental shelf beyond 200 nautical miles, and to make recommendations

¹⁶⁸ A Parliamentary Resolution on Iceland's Arctic Policy (Approved by Althingi at the 139th legislative session March 28 2011), <http://www.mfa.is/media/nordurlandaskrifstofa/A-Parliamentary-Resolution-on-ICE-Arctic-Policy-approved-by-Althingi.pdf>.

¹⁶⁹The United Nations list of signatories to the Law of the Sea Convention, http://www.un.org/Depts/los/convention_agreements/convention_declarations.htm#Iceland percent20Declaration percent20made percent20upon percent20ratification.

associated to those limits. Iceland believes a lasting commitment to the 200-nautical mile EEZ is a requirement for continued peace and cooperation in the region¹⁷⁰.

2. Arctic Council

Iceland is an active member of the Arctic Council and sees the group's role as critical in shaping cooperative efforts in the region. In January of 2013, the Arctic Council's permanent secretariat was established. The creation of the permanent secretariat was a priority in Iceland's Arctic policy.¹⁷¹ Like most other Arctic nations, Iceland wants to enhance the power of the Arctic Council as the premier body of influence in the region. Additionally, Iceland applied for EU membership in 2009, which would enlarge the EU's footprint in the Arctic.

3. Upholding Security Interests

Iceland promotes security in the Arctic through civilian governance methods and does not support militarization of the Arctic. This is in contrast to some other Arctic nations, namely Russia and Canada, who have actively moved military and security forces, assets, and infrastructure to the Arctic as a sign of sovereignty. Iceland's cooperation with other States is based on the protection of the environment, scientific research, search and rescue, as well as pollution prevention in the Arctic region.¹⁷²

4. Indigenous People

Iceland, like most other Arctic nations, supports the rights of indigenous peoples. According to Iceland, native groups have the right to be consulted on all political, social, cultural, economic, or environmental interests affecting their villages. Indigenous groups must be afforded the opportunity to nurture their cultural individuality, enhance their

¹⁷⁰ The National Parliament of Iceland, "A Parliamentary Resolution on Iceland's Arctic Policy," (March 28, 2011), section 4, <http://www.mfa.is/media/nordurlandaskrifstofa/A-Parliamentary-Resolution-on-ICE-Arctic-Policy-approved-by-Althingi.pdf>.

¹⁷¹ No author, "Arctic Council's Permanent Secretariat Established," Iceland Review Online (January 25, 2013), http://www.icelandreview.com/icelandreview/daily_news/?cat_id=29314&ew_0_a_id=397261.

¹⁷² The National Parliament of Iceland, "A Parliamentary Resolution on Iceland's Arctic Policy," (March 28, 2011), section 9, <http://www.mfa.is/media/nordurlandaskrifstofa/A-Parliamentary-Resolution-on-ICE-Arctic-Policy-approved-by-Althingi.pdf>.

communities, and improve their standard of living. Iceland promotes the use of the Arctic Council and other international conventions as a means of including indigenous people, as permanent members, in determining the future of Arctic policy and implementation.¹⁷³ Recently, Iceland objected to the exclusion of indigenous groups from the meetings between the five coastal States in Ilulissat, Greenland and Chelsea, Canada.¹⁷⁴

5. Summary and Analysis

Like her European Arctic neighbors, Iceland has a detailed and focused policy for the Arctic. The policy aims at bolstering the Arctic Council, reinforcing the use of UNCLOS as the method for Arctic governance, assisting Arctic natives, and developing the economy through trade. In stark contrast to the other Arctic nations, Iceland does not want to use the military as means of control or sovereignty in the region but is working through international cooperation to achieve their Arctic strategy goals.

H. NON-ARCTIC STATES

Most recently, Norway pushed for inclusion of China into the council as an observer. China would join Italy, Japan, Korea, Singapore, India, and the EU who are all seeking official observer status as well. According to Norway's Minister for Foreign Affairs, Espen Barth Eide, "We want people to join our club. That means they will not start another club."¹⁷⁵ Norway has emphasized the important role of the Arctic Council and by expanding the tent; the Council not only remains relevant but also is the forum for all Arctic issues. At their biennial meeting on May 15th in the Swedish city of Kiruna, its foreign ministers agreed that China, India, Italy, Japan, South Korea and Singapore could become permanent observers, joining 26 current ones. But they denied that status to all international groups that applied, including non-governmental organizations (NGO) such

¹⁷³ The National Parliament of Iceland, "A Parliamentary Resolution on Iceland's Arctic Policy," (March 28, 2011), section 6, <http://www.mfa.is/media/nordurlandaskrifstofa/A-Parliamentary-Resolution-on-ICE-Arctic-Policy-approved-by-Althingi.pdf>.

¹⁷⁴ *Ibid.*, 7.

¹⁷⁵ Brugard Morten, "Norway says yes to China in Arctic Council", *Barents Observer* (January 22, 2103), <http://barentsobserver.com/en/arctic/2013/01/norway-says-yes-china-arctic-council-22-01>.

as Greenpeace. The EU's admittance was postponed, pending talks with Canada.¹⁷⁶ Many of the new members have been active in the Arctic for many years. For example, since 1999, China has led five Arctic marine expeditions, including one in 2012. Japan and South Korea built powerful icebreaking vessel, which allow them to conduct their own exploratory operations and support those by other states and organizations.¹⁷⁷

Immediately following announcement, the Polar Research Institute of China said it plans to establish a China-Nordic Arctic Research Center in Shanghai to increase awareness and knowledge of the Arctic and promote cooperation for its sustainable development.¹⁷⁸ "The Arctic is a region where frequent economic activities are taking place," Yang Huigen, head of the Polar Research Institute of China.¹⁷⁹ There has been speculation that China's interest is based on the Arctic's abundant natural resources. "But we insist that those recourses are not ours, and China's partnership with Arctic countries in the sector will come naturally as it is part of the widening economic cooperation among countries under the context of globalization."¹⁸⁰ Other nations such as India claimed that its approach to the Arctic is exclusively scientific. "Unlike China and South Korea, which are going for commercial benefit, our interest is purely scientific," stated a Indian official.¹⁸¹

Sweden's foreign minister, Carl Bildt, said the addition of the observers strengthened the council by recognizing the pre-eminence of the permanent nations' sovereignty in the Arctic. In doing so Mr. Bildt reinforced the in-group/out-group

¹⁷⁶ No Author, "Arctic diplomacy- a warmer welcome The Arctic Council admits its first permanent Asian observers," *The Economist*, May 18, 2013, <http://www.economist.com/news/international/21578040-arctic-council-admits-its-first-permanent-asian-observers-warmer-welcome>.

¹⁷⁷ Ibid.

¹⁷⁸ Wang Zhenghua, "China to establish research center for the Arctic region," *The China Daily*, 6 June 2013, http://www.chinadaily.com.cn/cndy/2013-06/06/content_16574051.htm.

¹⁷⁹ Ibid.

¹⁸⁰ Steven Lee Myers, "Arctic Council Adds 6 Nations as Observer States, Including China," *New York Times*, 15 May 2013, <http://www.nytimes.com/2013/05/16/world/europe/arctic-council-adds-six-members-including-china.html?pagewanted=print>.

¹⁸¹ Meena Menon Sandeep Dikshit, "India gets observer status in Arctic Council," *The Hindu*, 15 May 2013, <http://www.thehindu.com/news/international/world/india-gets-observer-status-in-arctic-council/article4717770.ece>.

dynamic of the Arctic Council. Instead of welcoming the new observers, he pointed out the differences. “I would say it demonstrates the broad international acceptance of the role of the Arctic Council, because by being observer, these organizations and states, they accept the principles and the sovereignty of the Arctic Council on Arctic issues,” Bildt said when asked if adding participants threatened to dilute the council’s value. “As a matter of fact, it strengthens the position of the Arctic Council on the global scene.”¹⁸²

The council’s final declaration following the acceptance of the new members recognized “the central role of business in the development of the Arctic,” though it called for development to be conducted in ways that would sustain indigenous peoples and the environment.¹⁸³ Most of the new members were already observers on an *ad hoc* basis prior to formal admission. Their authority will continue to be pretty limited: they cannot speak or vote. But with their new expertise and money, they could influence decisions in the council’s various working groups in the years to come.

¹⁸² Steven Lee Myers, “Arctic Council Adds 6 Nations as Observer States, Including China,” *New York Times*, 15 May 2013.

¹⁸³ *Ibid.*

IV. SELECT THE CRITERIA—WHAT ARE THE GAPS IN THE CURRENT FRAMEWORK WHEN COMPARED WITH ALTERNATIVES?

Unlike the more concrete plans of the other Arctic nations, the National Strategy for the Arctic Region is a collection of ideas that attempt to advance U.S. interests in the Arctic, but it lacks clear direction, authority, and funding to implement measures that belong in a comprehensive strategic policy. Because only one of the United States' 50 states qualifies the U.S. as an Arctic nation, most Americans do not identify with the region. The Arctic is not on the forefront of the American political stage. Due its relative remoteness from the other states, its unique climate, and geopolitical challenge, it is a low priority in national discussions. Only Alaska qualifies the U.S. as an Arctic nation, and only a portion of this large, but sparsely populated state, qualifies the U.S. as such. An Arctic policy requires a clear mission statement from the U.S. government to the American people and the rest of the world stating that “the U.S. is an Arctic Nation,” and UNCLOS is the legal framework for action in the region.

Beyond that, the policy needs to explain the U.S. strategic interests in the region. For example, a melting Arctic will open sea lanes and maritime commerce, and this will mean that the U.S. needs to have a DHS/USCG presence for sovereignty, maritime domain awareness, search and rescue, marine environmental protection, anti-smuggling, illegal immigration, and maritime transportation management.¹⁸⁴ Icebreakers are needed to ensure U.S. sovereignty and to preserve Freedom of Navigation claims in both the Northwest Passage and Northern Sea Routes. Defense interests require an increased DoD presence through the placement of an Arctic base or rotating vessels and personnel. Besides the USCG and DoD, other agencies such as Customs and Border Protection and DOE, amongst others, have an interest in the future of the Arctic, because it provides opportunities of expanded authorities and growth opportunities for each agency. As a result, it is vital that policy makers develop a guidance to ensure unity of effort.

¹⁸⁴ Although Freedom of Navigation responsibility generally falls to the U.S. Navy, currently the Navy lacks the capability to deploy afloat units to the Arctic in the manner the U.S. Coast Guard can.

The other Arctic nations have detailed Arctic policy statements that provide a prescriptive method for dealing with the changing Arctic. The Arctic policies of most nations mainly contain a dual-track approach of diplomacy coupled with military and security objectives. The main gaps identified in the U.S. plan include providing a method for dealing with long term Arctic governance, dealing with the needs of Native populations, and infrastructure development in the Arctic.

1. Long-Term Maritime Governance

Both the National Strategy for the Arctic Region and the previously released NSPD-66/HSPD-25 refer to the importance of “International Governance,” but unlike the plans of the seven other Arctic nations it does not - cannot - consider UNCLOS the cornerstone of maritime governance. This is likely due to the fact that the U.S. has failed to accede to UNCLOS. The U.S. plan calls for the Senate to “act favorably” on UNCLOS. The reasons opined upon in the plan (national security interests, protecting the Arctic environment and sovereignty) are the basis of the seven other Arctic nation’s policies.¹⁸⁵ The U.S. plan makes mention of other international agreements, but none is as important to this region as UNCLOS.

2. Native Population Needs

The newly released National Strategy for the Arctic Region improved upon NSPD-66/HSPD-25, which makes little mention of the Alaskan Native population or the government’s current relationship with the tribes that dot the Arctic coastline. In contrast, the new strategy makes consultation and coordination with Alaska Natives a guiding principle of the strategy.¹⁸⁶ The federal government will consult Alaska Natives to provide feedback on the effect of proposed policies.¹⁸⁷ Currently, both the state of Alaska and the federal government have open and productive communications with the tribes of the Arctic. Alaska developed its operational plans with the needs of the native

¹⁸⁵ National Security Presidential Directive-66 and Homeland Security Presidential Directive -25 (January 2009) at I.L.A., <http://www.fas.org/irp/offdocs/nspd/nspd-66.htm>.

¹⁸⁶ The White House, “The National Strategy for the Arctic Region,” May 10, 2013, http://www.whitehouse.gov/sites/default/files/docs/nat_arctic_strategy.pdf, 3.

¹⁸⁷ Ibid.

subsistence hunters in mind; for example, meeting with the Native Whaling Commission to ensure whale migration patterns were not disturbed by planned operations. Unlike the lower-48 native American Indians, Alaskan Natives have different legislation governing how the federal government must coordinate and consult regarding issues such as land allocation and fishing rights. According to a native Inupiat in Barrow “the ocean means more than just food for native Alaskans. It’s the focus of the village’s community organization, its relationships and activities.”¹⁸⁸. U.S. government agencies, working and operating in the Arctic, have well-developed plans for Alaska Native coordination and communication. Outreach by agencies, such as the Coast Guard, has been helpful in sharing information and building trust with the native villages that dot the Arctic Coast. By example, the Coast Guard currently has a civilian position out of its Juneau, Alaska regional headquarters dedicated to full-time native outreach across the state to ensure the Coast Guard remains engaged with tribes.

Additionally, Alaska Native outreach is a priority in routine and emergency operations where tribes may be affected. The Coast Guard’s Admiral in charge of the Arctic region routinely communicates and visits with tribal leaders across the frozen north. In the event of a marine casualty or other maritime incident, the tribal leaders are consulted when appropriate and kept apprised of current and future operations. Other nations’ plans dedicate pages to their plans to synthesize Arctic planning with the indigenous populations of the Arctic while the U.S. has been doing so through the work of individual agencies working in a more piecemeal manner. As with her Arctic cousins, it is vital that as U.S. Arctic policy matures, the lines of communication remain strong with the Alaska Natives.

3. Infrastructure Development

The National Strategy for the Arctic Region lays out an imprecise and rather notional plan for the U.S. Arctic. It does so, while overlooking some basic problems with logistics and infrastructure in the region. Other nations’ plans address the need for better

¹⁸⁸ Bruce Gellerman, “Native Alaskans and Offshore Drilling,” *Living on Earth* (January 4, 2011), <http://www.loe.org/shows/segments.html?programID=11-P13-00002&segmentID=2>.

ports, roads, and runways in the Arctic as a means of promoting security, safety, economic development, and sovereignty.

The National Strategy for the Arctic Region does not address the lack of personnel and assets that would be required in the region. With the nearest deep-water port and USCG/DoD bases at well over 500 miles away, the U.S. Arctic lacks a year-round USCG or DoD presence.¹⁸⁹ Coast Guard icebreakers ply the Arctic waters on winter deployments for a short period of time, and recently non-icebreaker cutters with ice-strengthened hulls have been deployed to monitor offshore oil drilling operations in the summer months. Not all Coast Guard cutters are ice-strengthened. But with no adequate port facility in the region, the cutters must head south for fuel, provisioning, repairs, and port calls. Lack of port facilities would also pose a significant challenge in the event of marine incident such as a ship collision, allision, or oil spill. In May 2013, the United States Army Corps of Engineers (USACE), as a part of the Arctic Deep Draft ports study, released their Federal Register Notice on the intention to study the feasibility of improving navigation infrastructure in the Arctic. The USACE notice concludes that the current maritime infrastructure is not capable of meeting the current or future demands.¹⁹⁰

Although a USCG C-130 aircraft can land at the international airport in Barrow, the facility lacks storage space for aircraft and support activities. In 2012, without adequate Coast Guard hangar facilities, the USCG had to rent a hangar and invest significantly into refurbishing the facility to bring it up to service standards. Short-term accommodations and rental cars are very scarce, and when available, are quite expensive. Food costs are also extremely high. In an environment of dwindling resources, these are real challenges. In the past, the Coast Guard has borrowed short-term sleeping space in the high-school gym, utilized tents, and had government vehicles

¹⁸⁹ U.S. Army–Fort Wainwright is approximately 500 miles and U.S. Coast Guard Base Kodiak is 800 miles from Barrow, Alaska.

¹⁹⁰ U.S. Army Corps of Engineers, “Intent to Prepare an Environmental Impact Statement for Arctic Deep Draft Ports Navigation Improvements Feasibility Study,” Federal Register Volume 78, Number 97 (May 20, 2013).

transported via aircraft for lack of better facilities. In order for the U.S. to attempt to meet the notional plans of the national Arctic strategy, U.S. agencies must have adequate infrastructure in order to operate.

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V. PROJECT THE OUTCOMES AND CONFRONT THE TRADE-OFFS—THE RISKS IN THE MARITIME DOMAIN IF THE U.S. DOES NOT CREATE AN EFFECTIVE ARCTIC POLICY

A. RISK TO SAFETY OF LIFE AND PROPERTY AT SEA DUE TO A LACK OF SEARCH AND RESCUE (SAR) ASSETS AND FACILITIES

Vessel traffic in the Arctic region is ever increasing due to the receding ice. U.S. Coast Guard District Seventeen in Juneau, Alaska, has been tracking data in the region. From 2008 to 2012, there was a 100 percent increase in traffic in the Arctic, from 120 vessels transiting the region in 2008 to 250 in 2012 (see Figure 1). USCG figures show an increase in Bering Strait transits from 245 to 325 during 2008–2010.¹⁹¹ Vessel traffic is expected to increase even more in the future with Alaskan oil drilling and Northern Sea Route shipping.¹⁹² In one year alone, there was an increase of vessel traffic in U.S. waters from 85 vessels in 2011 to 110 vessels reported in 2012.¹⁹³ This number does not include other vessels such as recreational, pleasure, and adventure-seeker vessels, that often go untracked and unreported. This increase was mainly attributed to exploratory drilling. Ultimately, Shell’s plans were cancelled late in the season due to persistent ice and equipment problems.¹⁹⁴ Additionally, in 2010, only four ships carrying 111,000 tons of cargo made passage through the Arctic but in 2012, 46 did, carrying 1.26 million tons of cargo.¹⁹⁵

¹⁹¹ Olin Strader, “A Bering Strait Vessel Traffic Service: Critical Infrastructure for an Opening Arctic (Part I),” The Arctic Institute, Center for Circumpolar Security Studies (February 6, 2012), <http://www.thearcticinstitute.org/2012/02/1278-bering-strait-vessel-trafc-service.html>.

¹⁹² Ibid.

¹⁹³ Lisa Demer, “Shell Oil drilling rig headed to Alaska’s Arctic,” News Tribune, June 24, 2012. <http://www.thenewstribune.com/2012/06/28/v-printerfriendly/2225152/shell-oil-drilling-rig-headed.html>.

¹⁹⁴ Brad Plumer, “Even as the ice melts, drilling in the Arctic gets tougher,” Washington Post, September 26, 2012. <http://www.washingtonpost.com/blogs/ezra-klein/wp/2012/09/26/backlash-against-offshore-arctic-drilling-grows/>.

¹⁹⁵ Steven Lee Myers, “Arctic Council Adds 6 Nations as Observer States, Including China,” New York Times, May 15, 2013. <http://www.nytimes.com/2013/05/16/world/europe/arctic-council-adds-six-members-including-china.html?>

The increase in vessel traffic also increases the risk of a search and rescue case. From a DHS/USCG and DoD perspective, the increased commerce means that agencies like the Coast Guard (which has 11 statutory missions to be executed in both U.S. and international waters) need a permanent presence in the Arctic to carry out those missions. Currently, with no permanent Coast Guard or Department of Defense presence, the U.S. lacks an acceptable level of Arctic MDA. As a part of Operation Arctic Shield 2012, the Coast Guard deployed 2 MH-60 helicopters to Barrow to respond to all USCG missions, including search and rescue. Unfortunately, the operation is seasonal and leaves the area vulnerable eight months of the year. Additionally, the bi-weekly seasonal Arctic Domain Awareness flights from Coast Guard Air Station Kodiak (2,000 miles round trip) are very expensive and lack first-responder capability due to the fixed wing platform.

As a result, lives will be lost due to maritime mishaps and casualties as response assets are lacking. The recent Arctic Shield 2012 operation last summer resulted in numerous SAR cases, where lives were saved due to the presence of cutters and aircraft in the Arctic. There are no permanently-based Search and Rescue (SAR) assets, SAR infrastructure, or polar icebreaking capability. Property and the environment will continue to be at risk. There is a lack of oil spill response capability, a lack of a maritime transportation system in the region, and no deep-water port capability. All of these capabilities and programs exist in the other coastal states and territories of the U.S. Nothing less should be tolerated in the Arctic region of the country. Additionally, the other Arctic nations have response resources and maintain sovereignty along their Arctic shores, putting the U.S. at a strategic and tactical disadvantage, and putting U.S. lives and resources at the mercy of foreign assistance.

UNCLASSIFIED



2008 – 2012 Arctic Activity



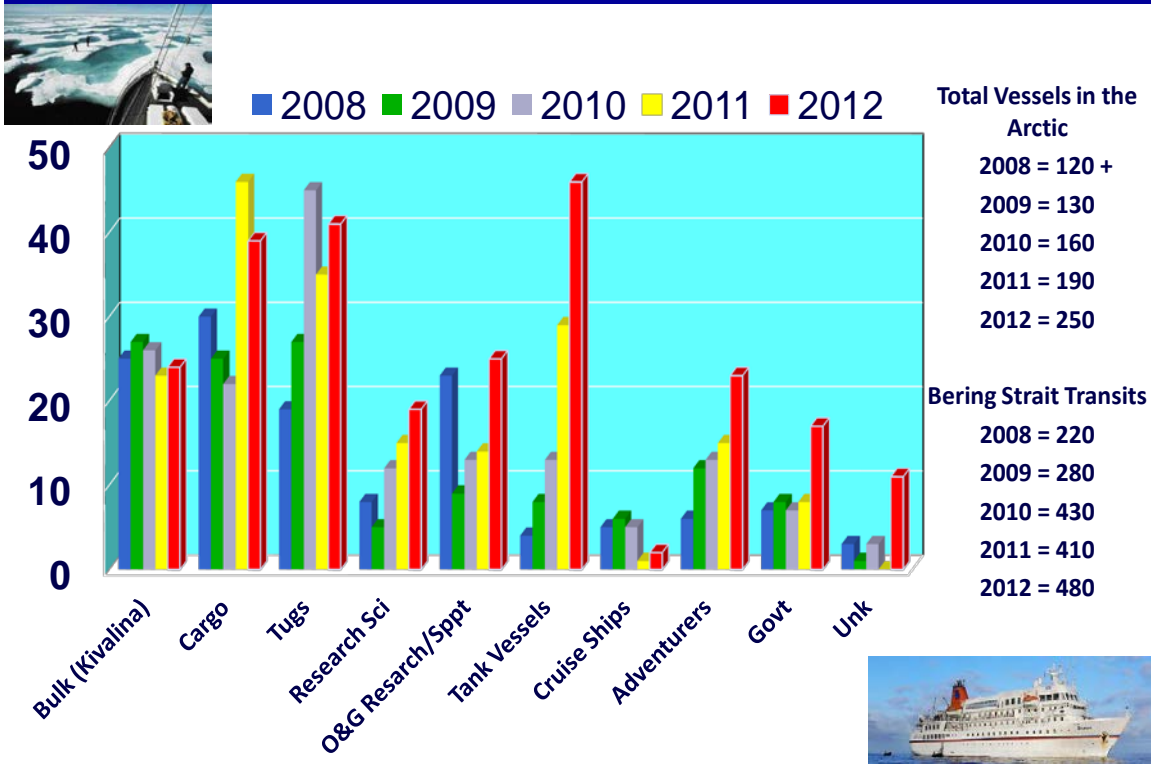


Figure 1. 2008–2012 Arctic Activity (From U.S. Coast Guard District Seventeen, 2012)

The growth of cruise vessel traffic in the Arctic brings with it the increased risk of maritime safety and security issues. After declining passenger numbers from 2009–2011, the industry saw a 7 percent growth in travelers to Alaska starting in 2012 to nearly 1 million.¹⁹⁶

According to U.S. Coast Guard District Seventeen data from 2012 (Figure 2), both the HANSEATIC and the WORLD cruise vessels transited the Arctic. The WORLD has a capacity of 300 passengers and a crew of 250 and the HANSEATIC has a combination of 300 passengers and crew.¹⁹⁷

¹⁹⁶ Elwood, “Additional Cruise Ships, Airline Capacity Coming In 2013,” Alaska Journal of Commerce (December 27, 2012), <http://www.alaskajournal.com/Alaska-Journal-of-Commerce/December-Issue-5-2012/Additional-cruise-ships-airline-capacity-coming-in-2013/>.

¹⁹⁷ Cruise vessel HANSEATIC information and specifications. http://en.wikipedia.org/wiki/MS_Hanseatic.



Figure 2. 2012 Cruise Ships (From U.S. Coast Guard District Seventeen, 2012)

Over the summer of 2012, the Coast Guard deployed 2 MH-60 Jayhawk helicopters to Barrow. The assets were pre-deployed to handle all missions including SAR. The aircraft has a maximum range of 700 NM with 7-hour endurance. The radius is 300 NM with search capability of 15-minute and 30-minute hover. The recovery capability is six people per trip.¹⁹⁸ The hourly cost of operating the MH-60 is approximately \$11,500 according to the Coast Guard reimbursable standard rates.¹⁹⁹ With the Coast Guard's limited presence in the Arctic, it would take days to rescue the passengers and crew off of a small cruise vessel such as the WORLD by helicopter in the rough waters of the Arctic where boat rescue may be impossible.

As cruise ship traffic grows and routes extend into the Arctic, SAR capability and marine safety needs will grow in the region. Although the numbers are small today, a mass rescue operation would exhaust what little resources currently exist in the Arctic villages of Barrow and Nome. Even limited exposure to the frigid Arctic waters reduces

198 HH-60J "Jayhawk" information and specifications, <http://www.webcitation.org/5r3qmXW77>.

199 U.S. Coast Guard, "U.S. Coast Guard Reimbursable Standard Rates," Commandant Instruction 7310.1N (March 28, 2012), http://www.uscg.mil/directives/ci/7000-7999/CI_7310_1N.pdf.

survivability to mere minutes. Currently, these potentially dire conditions exist in the Arctic due to inadequate maritime emergency response assets and lengthy distances result in prolonged response times.²⁰⁰

As a step in the right direction, the Arctic Council negotiated an Arctic SAR agreement that was signed by the U.S. in 2011. The SAR Agreement entrusts Arctic nations to provide suitable assistance in the event of a marine incident and to measures to deal with emergent SAR needs in the Arctic region.²⁰¹ Currently, the U.S. cannot respond as rapidly as the other Arctic nations and in the game of SAR every second counts especially in the frigid and unforgiving Arctic.

1. Potential Environmental Damage, and Interruption of Native Subsistence Whaling/Fishing Due to a Lack of Oil Spill-Response Equipment

Responding to, and cleaning up, an oil spill is very difficult; but responding to an oil spill in the Arctic Ocean is even more difficult. Besides the pristine and often ice-choked waters, the Arctic region poses several challenges including logistics, lack of infrastructure, and extreme weather that make otherwise effective tools and assets useless in the harsh northern latitudes and persistent ice.²⁰² An oil spill in the Arctic would hurt the native population the most: “If they have a catastrophe like in the Gulf of Mexico and that stuff seeps up in the ice and it floats up all around the Northern Hemisphere, it’s going to hurt our hunting. It’s going to ruin our source of food.”²⁰³

²⁰⁰ Arctic Council, *Arctic Marine Shipping Assessment 2009, second printing (2009)*. <http://www.pame.is/amsa-2009-report>.

²⁰¹The Task Force on Search and Rescue, “Agreement on Cooperation in Aeronautical and Maritime Search and Rescue in the Arctic,” The Arctic Council (May 2011). <http://www.ifrc.org/docs/idrl/N813EN.pdf>.

²⁰² No Author, “Spill Response in the Arctic Offshore,” American Petroleum Institute and the Joint Industry Programme on Oil Spill Recovery in Ice (February 2, 2012), 102, http://www.api.org/~media/files/ehs/clean_water/oil_spill_prevention/spill-response-in-the-arctic-offshore.ashx.

²⁰³ Jennifer Dlouhy, “Alaska whale hunters wary of oil drilling,” San Francisco Chronicle, November 23, 2012. <http://www.sfgate.com/nation/article/Alaska-whale-hunters-wary-of-oil-drilling-4062827.php>.

One of the eleven statutory missions of the Coast Guard is maritime environmental protection.²⁰⁴ Events such as the Exxon Valdez spill in 1989 in the pristine waters of Prince William Sound and the Deepwater Horizon spill in 2010 in the Gulf of Mexico highlighted the service's ability to coordinate large-scale oil spill response operations. In accordance with the Oil Pollution Act of 1990 (OPA 90), the Coast Guard is the federal agency charged with overseeing and coordinating oil spill response to both large and small in U.S. waters.²⁰⁵ The response is coordinated with other federal, state, local, and commercial entities.

As a part of the 2012 Arctic Shield Operation, and in order to test federal agencies' capabilities and spilled oil-recovery technologies, the Coast Guard, in partnership with the Department of Defense (U.S. Northern Command (NORTHCOM), U.S. Navy Supervisor of Salvage (SUPSALV), Joint-Task Force Alaska), staged an oil spill response exercise in the Arctic in the summer of 2012.²⁰⁶ The goal of the exercise was to test the participating organizations' plans, policies, and procedures to respond to a spill. Another goal was to deploy and test different types of oil spill response equipment in the harsh Arctic environment.²⁰⁷ Specifically, the exercise tested the interoperability of oil spill response gear, as well as the logistics involved in doing a large environmental response in the remote waters of the U.S. Arctic.²⁰⁸ The results will be used as a basis for future research and development and potential procurement of Arctic oil spill response gear for the U.S. Coast Guard and Navy.

The exercise was based on the scenario of a major blowout on commercial oil rig conducting exploratory drilling on the outer continental shelf of the United States. Under

²⁰⁴ By law, the Coast Guard has 11 missions: Ports, waterways, and coastal security, Drug interdiction, Aids to navigation, Search and rescue, Living marine resources, Marine safety, Defense readiness, Migrant interdiction, Marine environmental protection, Ice operations, Other law enforcement. <http://www.uscg.mil/top/missions/>.

²⁰⁵ 33 United States Code §2701 et seq.

²⁰⁶ The U.S. Coast Guard is armed force under Title 10 U.S. Code. Additionally, the Coast Guard is both a law enforcement agency and a federal regulatory agency.

²⁰⁷ Arctic Shield 2012 Spilled Oil Response System (SORS) Deployment FTX, Exercise Plan (July 30, 2012).

²⁰⁸ Arctic Shield 2012 Spilled Oil Response System (SORS) Deployment AAR (August 31, 2012), 4.

the exercise plan, the spill would drift towards environmentally sensitive areas of nearby Barrow, Alaska.²⁰⁹ The spill was classified as a Spill of National Significance (SONS). According to 40 CFR 300.5 the term ‘spill of national significance (SONS)’ means “a spill that due to its severity, size, location, actual or potential impact on the public health and welfare or the environment, or the necessary response effort, is so complex that it requires extraordinary coordination of federal, state, local, and responsible party resources to contain and clean up the discharge.”²¹⁰

The gear that was deployed and tested included the Coast Guard’s Spilled Oil Recovery System (SORS), which has been standard issue aboard 225-foot Juniper Class seagoing buoy tenders stationed throughout the U.S. coast and the U.S. territories. The SORS system was successfully employed during the Deepwater Horizon Spill in 2010 in the Gulf of Mexico.²¹¹ Second, the U.S. Coast Guard Research and Development Center in Groton, Connecticut was testing the newly designed and developed Polar Bear system.²¹² Lastly, Navy SUPSALV was testing the Current Buster system.²¹³ All testing was conducted from the U.S. Coast Guard cutter SYCAMORE (WLB-209), which is home-ported in Cordova, Alaska.

With respect to lessons learned, logistics proved to be very challenging because the Arctic Coast of the United States lacks infrastructure such a deep-water port facility to on or off-load equipment. As a result, the SUPSALV gear was transported hundreds of miles over the Haul Road from southern Alaska to the Prudhoe Bay in three containers

209 2012 Arctic Shield Spilled Oil Response System (SORS) Deployment AAR (August 31, 2012).

210 40 Code of Federal Regulations 300.5 Title 40, Protection Of Environment; Chapter I. Environmental Protection Agency; Subchapter J. Superfund, Emergency Planning, And Community Right-To-Know Programs, Part 300 National Oil And Hazardous Substances Pollution Contingency Plan, Subpart A Introduction.

211 Andrew Kauffman, “Coast Guard Cutter Juniper Skims oil in the Gulf of Mexico,” Coast Guard News (July 15, 2010), <http://coastguardnews.com/coast-guard-cutter-juniper-skims-oil-in-the-gulf-of-mexico/2010/07/15/>.

212 Desmi Corporation, Polar Bear Skimmer information, http://www.desmi.com/UserFiles/file/News/New_proven_ice_skimmer.pdf

213 No Author, “Coast Guard completes Arctic spilled oil recovery systems test,” Alaska Dispatch (August 2, 2012), <http://dutchharbortelegraph.com/coast-guard-completes-arctic-spilled-oil-recovery-systems-test-p516-129.htm>.

and put on a barge for transport and deployment.²¹⁴ The SORS gear and Polar Bear systems were loaded on to the cutter SYCAMORE prior to departure from its homeport. This may prove to be a large logistics hurdle in the event of oil spills where gear must be transported and deployed on-scene. A lesson learned was to have the Coast Guard, as the principal response agency, to acquire an offshore capable barge to pre-stage equipment such as SORS gear and additional boom.²¹⁵ This would come at great financial cost if ever needed.

Testing uncovered some technical problems with the current SORS system used on Coast Guard cutters. For example, the collapsible fabric bladder used for recovered oil storage once it is skimmed from the surface of the water cannot be used in the Arctic due to the harsh weather environment. For recovering spilled oil in the Arctic a large barge or tanks must be utilized due the extreme weather and ice conditions, which render the fabric bladder useless.²¹⁶

Another lesson learned was that because the Arctic Ocean has been covered with ice for thousands of years, it is not well charted for depths and hazards compared to other coastal areas of the United States. For this exercise, a HYPAC bathymetric survey system was utilized aboard the cutter and the small boat to chart the water depths, and to prevent groundings. This technology allowed the vessels to work more independently to recover spilled oil in rather treacherous conditions with unmarked or charted hazards.²¹⁷ A comprehensive review of depths and hazards in the waters of the Arctic Ocean would require assets and funding. Additionally, with a large of deep-water port facilities, the vessels being used for oil spill recovery may be required to transport personnel and gear to and from shore.

During the course of the exercise, it was determined that the best technology for spilled oil recovery in the Arctic marine environment is the one that is optimized based

214 Ibid., 3.

215 2012 Arctic Shield Spilled Oil Response System (SORS) Deployment AAR (August 31, 2012), 17.

216 Ibid., 13.

217 Ibid., 17.

on the combination of ice, weather (current and sea state), and amount of oil encountered. Over the course of the three-day exercise, numerous ice concentration conditions and weather scenarios were observed within the same 10-nautical-mile-square exercise area.

On August 6, 2012, at U.S. Coast Guard Air Station (Kodiak, Alaska), Coast Guard Commandant Admiral Robert Papp testified before a Senate Committee on Appropriations, Subcommittee on Homeland Security field hearing titled “U.S. Coast Guard Operations in Alaska,” saying, “while prevention is critical, the Coast Guard must be able to manage the response to pollution incidents where responsible parties are not known or fail to adequately respond.”²¹⁸ Although this 2012 joint DoD–Coast Guard spilled oil response exercise helps advance the direction of the service chief and improve the U.S. government’s ability to respond to an incident, it requires significant investment in assets, research and development, and infrastructure in the region to improve and apply the lessons learned.

Besides the logistical challenges of operating in the Arctic without a deep-water port or pre-staged assets and equipment, the Alaskan Natives who reside on the Arctic Ocean depend upon the ocean for subsistence. According to the National Oceanic and Atmospheric Agency (NOAA), the Alaska Eskimo Whaling Commission apportions the International Whaling Commission quota among the eleven Eskimo villages of northern Alaska.²¹⁹ Alaska Natives rely on the subsistence hunting and whaling to feed their families and villages.

A marine casualty resulting in an oil spill would be devastating to the marine environment and the subsistence hunts. “For a lot of people, I guess at the end of the day they probably won’t see any economic benefit out of it, or very little. Yet everyday they’ll take a risk with the food out there that is available and accessible to us all out there. Some people derive benefit while the entire population takes the risk and of course

218 Written testimony of U.S. Coast Guard Commandant Admiral Robert Papp, Jr. for a Senate Committee on Appropriations, Subcommittee on Homeland Security field hearing titled “U.S. Coast Guard Operations in Alaska,” Kodiak, AK (August 6, 2012).

219 National Oceanic and Atmospheric Agency (NOAA) information on Alaska fisheries. <http://alaskafisheries.noaa.gov/protectedresources/whales/bowhead/>.

that's what played out in the Gulf of Mexico.”²²⁰ Due to the lack of alternative food sources, this could set off a potential humanitarian disaster because whale meat is a staple.

2. Risk To Sovereignty/ Natural Resource Claims Due to Not Acceding to UNCLOS

United States accession to UNCLOS is critical to ensure sovereignty in the Arctic. UNCLOS provides specific guidance for dealing with maritime borders disputes and the outer continental shelf claims through an international tribunal and arbitration.²²¹ Currently as a non-signatory to UNCLOS, the U.S. is not able to avail itself of these provisions and can only engage bi-laterally as needed.

The consequences of this are becoming increasingly clear in relationships with Canada and Russia, with whom the U.S has active maritime border disputes. The U.S. is in dispute with the Russian Federation over the Bering Strait and with Canada over the waters of the Northwest Passage (NWP). The NWP crosses over North America, in an area that Canada claims are internal waters not subject to the conventions of “innocent passage” as established under customary international law and UNCLOS. On the contrary, the U.S. regards the waters of the NWP as an international strait for navigational purposes, through which ships can pass without interference by the coastal state (Canada).²²² The opening of the Northwest Passage would have a global impact on marine transportation. It would cut shipping routes between ports in Asia and U.S. east coast by nearly 5,000 miles.²²³ Due to a lack of standing under the UCLOS treaty, the

220 Living on Earth, “Native Alaskans and Offshore Drilling” (January 4, 2011), <http://www.loe.org/shows/segments.html?programID=11-P13-00002&segmentID=2>.

221 Marc Sonntag and Felix Lüth, “Who Owns the Arctic? A Stocktaking of Territorial Disputes,” The Global Journal (December 21, 2011), <http://theglobaljournal.net/article/view/439/>.

222 United Nations Convention on the Law of the Sea. Annex II. Commission on the limits of the Continental Shelf, 1982, Article 19, “Passage is innocent so long as it is not prejudicial to the peace, good order or security of the coastal State. Such passage shall take place in conformity with this Convention and with other rules of international law,” http://www.un.org/Depts/los/convention_agreements/texts/unclos/part2.htm.

223 Charles Ebinger and Evie Zambetkis, The Geopolitics of Arctic Melt. International Affairs Vol. 85 (June 2009), 1221, http://www.brookings.edu/~media/research/files/papers/2009/11/arctic_percent20melt_percent20ebinger_percent20zambetakis/11_arctic_melt_ebinger_zambetakis.pdf.

U.S. is arguing from a position of weakness with respect to the statuses of the Northwest Passage, the Northern Sea Route, and the Bering Strait and the subsequent threat to Freedom of Navigation.

Additionally, UNCLOS contains specific provisions for extended Outer Continental Shelf (OCS) claims. Besides massive deposits of oil and gas, the Arctic contains major mineral deposits such as nickel, iron ore, tin, uranium, copper, and other rare earth minerals. Every Arctic nation is accessing locations and methods to extract these resources.²²⁴ In the massive land grab for natural resource rich areas that has been going on between the other seven Arctic nations, the U.N. as detailed in UNLCOS is the arbiter. As a non-party, the U.S. is left out in the cold with respect to OCS claims. The OCS is rich in natural resources and opportunities for positive economic impact. According to the U.S. Geological Service, the U.S. Arctic contains 29.96 billion barrels of oil and 72 billion barrels of natural gas (about 33 percent of technically recoverable oil and 18 percent of technically recoverable gas in the entire Arctic).²²⁵ Although the U.S. abides by the rules of UNCLOS without having ratified it, it trails behind the remainder of the Arctic states on its policy and in asserting its presence in the region.²²⁶ Signing and ratifying UNCLOS, like Canada, would prove to be an excellent framework for shaping U.S. Arctic policy and advancing the current blueprint for the region.

Some may argue that U.S. does not need UNCLOS due to the Arctic Council and the active role the U.S. has taken. Despite raising awareness about Arctic issues, the Arctic Council lacks any regulatory authority or the power to address military issues.²²⁷ As a result, the Arctic Council is limited in overall effectiveness and accession to UNCLOS is a better avenue to assert U.S. sovereignty in the region.

²²⁴ Heather Conley, "A New Security Architecture for the Arctic—an American Perspective," Center for Strategic and International Studies (January 2012).

²²⁵ Robert Gardner, "U.S. Must ratify Law of the Sea Convention," American Security Project (June 13, 2012), <http://americansecurityproject.org/blog/2012/us-must-ratify-law-of-sea-convention/>.

²²⁶ Ebinger and Zambetakis, "The Geopolitics of Arctic Melt," *International Affairs* Vol. 85 (June 2009), 1223, http://www.brookings.edu/~media/research/files/papers/2009/11/arctic_percent20melt_percent20ebinger_percent20zambetakis/11_arctic_melt_ebinger_zambetakis.pdf.

²²⁷ Conley and Kraut, "U.S. Strategic Interest in the Arctic An Assessment of Current Challenges and New Opportunities for Cooperation," Center for Strategic and International Studies, 13.

3. Maritime Domain Awareness as a Means of Increasing Sovereignty

Another method of extending sovereignty is through maritime domain awareness. Currently, some information in the Arctic is shared between various agencies, such as the Departments of Defense (Alaska Command/U.S. NORTHCOM), Commerce (NOAA), Homeland Security (USCG, CBP, ICE), Transportation (FAA), Interior (oil/gas permits), and State (foreign research). The purposes range from commercial and safety interests with DOI/DOE to security and homeland defense interests with the DoD/DHS agencies. In 2009, General Renuart, commander U.S. NORTHCOM stated, “we need to expand this satellite capability into the Arctic region. The Arctic will continue to be an area where more and more research is accomplished. There is more traffic in that region. Whether you are an expert in global warming or not, the fact is there is more water there every day than there has been in the past; that breeds competition for resources. Fishing, oil, gas, gold—all will encourage people to be more present in the Arctic region, where our communications are not up-to-speed.”²²⁸ This past summer, the USCG and NORTHCOM engaged in joint exercises in the Arctic to test compatibilities and interoperability.²²⁹

With limited government partners in the region, opportunities to share data and information would allow for a greater collaboration and collective MDA and security. Local community members provide valuable information on both suspicious activity and activity of interest. Government outreach and engagement in the local communities has been vital at gaining trust and contacts to ground truth other reports.

Notice of Arrival reports provide important queuing information on vessels arriving into U.S. ports and are required under U.S. law following changes made after the September 11, 2001 attacks.²³⁰ Additional information is obtained from C-130 Arctic

²²⁸ Remarks by General Gene Renuart at the AFCEA Solutions Series Conference, Washington, D.C., (May 5, 2009).

²²⁹ Hannah Heimbuch, “Coast Guard mission in Arctic morphs in response to needs of coastal Alaskans,” Alaska Dispatch, November 8, 2012, <http://www.alaskadispatch.com/article/coast-guard-mission-arctic-morphs-response-needs-coastal-alaskans>.

²³⁰ 33 Code of Federal Regulations Part 160. U.S. law requires foreign vessels and U.S. commercial vessels to provide 96 hour advanced notice of arrival before calling on a U.S. port.

Domain Awareness flights, cutter sighting reports, and community outreach. Current systems provide limited MDA of vessels required to carry and transmit AIS, LRIT and VMS. While this provides visibility of larger vessels, smaller vessels and those with these systems disabled go undetected due to lack of radar coverage. Additionally, until recent changes, visibility of commercial vessel traffic transiting the Russian side of the Bering Strait would often go undetected, or would require using expensive and license limiting tracking and shipping information from commercial sources such as Lloyd's Fairplay.²³¹

Increased MDA is vital to ensuring U.S. interests are served in the region. Nations such as China have been active in the Arctic by deploying new icebreakers to conduct scientific research and seek additional sources of natural resources in the region.²³² Also, Russia and Canada have been flexing their sovereign muscles in the Northern Sea Route and Northwest Passage seeking greater control and economic advantage versus cooperation with flag states utilizing these routes.

In order to maintain an acceptable level of Arctic MDA, the government needs to continue to leverage technology, invest in systems and encourage collaboration and information sharing between partners such as the Coast Guard, U.S. NORTHCOM, and commercial maritime companies. Improvements in methods for collecting vessel-tracking data, international cooperation with respect to the NSR and NWP, and increased presence of operational units of the DoD and USCG will assist in enhancing the overall the common-operating picture and sovereignty in the region.

²³¹ Lloyd's Fairplay, <http://www.fairplay.co.uk/>.

²³² No author, "Icebreaker is 1st Chinese vessel to cross Arctic Ocean," Associated Press (September 26, 2012), <http://www.cbc.ca/news/technology/story/2012/09/27/arctic-china-icebreaker.html>.

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VI. FINDINGS/CONCLUSIONS AND RECOMMENDATIONS

The National Strategy for the Arctic Region lacks a clear course of action, authority, and funding to implement the measures proposed that should be found in a comprehensive strategic Arctic policy. Beyond that, the policy needs to explain the impending U.S. strategic interests in the region: a melting Arctic will open sea-lanes and maritime commerce balanced with a need to protect the fragile Arctic environment. This will require the U.S. to have a DHS/USCG presence for sovereignty, maritime domain awareness, search and rescue, marine environmental protection, anti-smuggling, illegal immigration, and maritime transportation management. Icebreakers are needed to ensure U.S. sovereignty and Freedom of Navigation claims in both the Northwest Passage and Northern Sea Routes. Defense interests require an increased DoD presence through the placement of an Arctic base or rotating vessels and personnel.

As demonstrated, the other Arctic nations have mainly taken a dual-track approach (diplomacy and militarily) to Arctic policy. U.S. Arctic policy should be a quad-track approach (diplomacy, homeland security, defense, and commerce). The plan should express measurable actions on the part of the U.S. to advance policy interests in the Arctic. Specifically, the plan should direct the building of bases, ports, the signing of UNCLOS, and asset acquisition while naming a lead federal agency for Arctic issues.

A. COORDINATION AND DESIGNATION OF A LEAD FEDERAL AGENCY

The federal agency strategy should establish an inter-governmental coordination committee between the Department of State, Department of Defense, Department of Interior, Department of Energy, Department of Homeland Security, Alaskan natives from the Arctic, and the State of Alaska to work in concert to carry out the plan. Although many *ad hoc* groups have been set up, the strategy should lay out the specific commerce, security, defense, and sovereignty issues within these agencies in the Arctic, and what is needed for them to carry out the plan. This will also prevent agencies from creating separate Arctic policy plans and strategies, which may or may not fit in with the overall

whole-of-government approach, and may quickly wither away without funding or inter-agency assistance. For example, the Coast Guard recently released the service's Arctic Strategy out front of other agencies, and close in time with the national strategy. It provides the service's view of how the Coast Guard will operate in the region over the next decade; but was not made in coordination with other agencies operating in the region. Only time will tell if that was a strategically smart move.

The committee should be empowered and funded by the President and Congress to carry out the mandate. The plan would also name an executive agent for the committee. DHS should be named as the executive agent, due to the overarching DHS missions (mainly from the Coast Guard) that are required in the Arctic.

As a method of ensuring coordination, the Administration needs to name a lead federal agency for the Arctic. Due to the range of missions and authorities and the maritime environment of the U.S. Arctic, the Coast Guard would be a logical choice. As a military service, federal law enforcement agency, and regulator of commercial vessels, the Coast Guard spans the chasm between military and civil agencies and works well both within a chain-of-command, as a member of the maritime community in an incident command response, and with the public. Events like the Hurricane Katrina response have showcased the Coast Guard's ability to coordinate, lead, and execute a complicated and complex mission. Although the Coast Guard has declared themselves the lead federal agency in their Arctic Strategy, it will take a mandate requiring funding, as well as reinforcement from Congress and the President, to push the rest of the federal government to accept the Coast Guard in this role.

B. INFRASTRUCTURE

The Arctic needs additional infrastructure to include roads, ferries for transportation, and living or housing space for temporary visitors and workers. At a minimum, the plan should include the direction and funding for at least one deep-water port in the Arctic. The number of vessels transiting into the Arctic is increasing

exponentially.²³³ Currently, vessels need to tender small vessels for delivery of food and fuel in the Arctic. Government and industry are working on a plan to study the concept, but without a national directive, progress has been slow.²³⁴

As the Arctic ice recedes, marine traffic from fishing vessels, container vessels, and bulk carriers will continue to increase. A deep-water port would be strategic from a defense, homeland security, and commercial perspective.²³⁵ Construction of a deep-water port will also lead to greater economic development in the region, including development of other necessary infrastructure to support increased human activity in the region. Implementation of the development of infrastructure would require Congress to provide funding and direction to set aside federal land in the Arctic for a base and logistics hub. The work being undertaken by the U.S. Army Corps of Engineers should be re-doubled in order to locate suitable locations for a port facility to service the region. In an effort to kick start operations, the Navy could utilize the Seabees to develop piers, landing strips, and hangars, if needed.

C. MULTI-USE/JOINT BASE

The plan should include direction and funding for both defense and Coast Guard facilities in the Arctic, which could be shared. With no hangar or air facility in the area, the only flights currently arriving are long-range aircraft (C-130). They travel from nearly 1,000 miles away to conduct Arctic Domain Awareness flights and have very limited landing location options in the Arctic due to the poor infrastructure. Furthermore, there is no permanent search and rescue capability, oil spill response, maritime transportation system management, or surface response assets in the Arctic. A permanent base is needed to help establish maritime domain awareness and ensure sovereignty in the region. According to the State of Alaska's Northern Waters Task Force, "the Coast Guard must

233 Alex Demarban, "Begich panel considers deepwater port to support Arctic shipping," Alaska Dispatch, April 9, 2012, <http://www.alaskadispatch.com/article/begich-panel-considers-deepwater-port-support-arctic-shipping>.

234 Ibid.

235 Paula Lowther, "Arctic Deep Water Port," Alaska Business Monthly, January 2012, <http://www.akbizmag.com/Alaska-Business-Monthly/January-2012/Arctic-Deep-Water-Port/>.

have a greater overall presence in the Arctic, with the ability to stage assets closer to future shipping, oil and gas drilling, and commercial fishing activities.”²³⁶

Implementation and development of an Arctic Command would require significant cooperation between the Coast Guard (DHS) and Navy (DoD) as the main direction, focus, and operations of the command would be the maritime domain. It starts with direction from the President and funding from the Congress to help alleviate a turf war. The newly established law and regulations would need to clearly state who is in charge of what and who will contribute resources. Models such as the Australian Border Protection Command and the U.S. Joint Inter-Agency Task Force model provide templates for a structure. Currently, U.S. Pacific Command (PACOM) owns the water from a DoD perspective, but NORTHCOM owns the lands of the U.S. Arctic through Joint Task Force-Alaska.²³⁷ The Coast Guard has significant resources (personnel, aircraft and vessels) in the Alaskan area of operations, which encompasses the U.S. Arctic out to the edge of the U.S. Exclusive Economic Zone (EEZ). Since most of the focus is on the resources and shipping and not from any land threat, the greater coordination would be between U.S. Pacific Command and the new Arctic entity.

Both services are stretched very thinly, but like the two services have done with Harbor Defense Commands—which are joint Navy-Coast Guard commands that deploy overseas to engage in port security missions—they can work well together. In the 2007 Cooperative Strategy for twenty-first century Sea Power, the Commandants of both the Coast Guard and Marine Corps (USMC), along with the Chief of Naval Operations, vowed to work closely on maritime operations worldwide.²³⁸ In this agreement, the U.S. sea services spotlighted the importance of cooperative relationships as the basis for maritime security and could serve as the basis for a joint Arctic command. The agreement

²³⁶ Alaska Northern Waters Task Force Findings and Recommendations, 2012, http://housemajority.org/joule/pdfs/27/hjr0034_anwtf_recommendations.pdf, Alaska Northern Waters Task Force is joint committee of the Alaska Legislature. It includes non-voting members from the marine industry and the U.S. Coast Guard.

²³⁷ U.S. Northern Command, <http://www.northcom.mil/about/>.

²³⁸ U.S. Coast Guard, U.S. Marine Corps, U.S. Navy, “A Cooperative Strategy for twenty-first century Seapower,” U.S. Navy, October 2007, <http://www.navy.mil/maritime/Maritimestrategy.pdf>.

aims to project America's sea power in a way that protects U.S. vital and domestic interests, even as it promotes greater collective security and stability.

D. ICEBREAKER CONSTRUCTION

The Arctic plan needs direction and funding for new heavy polar icebreakers.²³⁹ Heavy icebreakers are critical to ensure logistical needs are met, shipping lanes are open for maritime traffic, and to undertake vital scientific research. The current polar breakers were built in the early 1970s with an expected 30-year life span. The vessels have served both the Arctic and Antarctic regions. The recently reactivated U.S. Coast Guard Cutter POLAR STAR was put back into active service through a multi-year, multi-million dollar overhaul to extend the service life by an estimated 25 years.²⁴⁰ The only other active icebreaker is the U.S. Coast Guard Cutter HEALY, which is not a heavy breaker. A plan is also in place for an additional Coast Guard heavy polar icebreaker, but that will not be able to fully meet the growing need for a presence in the region alone, or in a timely manner.

A lack of icebreaking capability will leave the U.S. lagging far behind the other Arctic nations, and other non-Arctic nations investing in these assets, who are making strategic decisions to expand their breaker fleets now. For example, Russia has over 20 heavy icebreaking vessels and is building more ships.²⁴¹ China and India, although not Arctic nations, are also building icebreakers and are poised to capitalize on their interest and hegemony in the region.²⁴² Across the Arctic, the U.S. lags far behind in polar icebreaker capability: Finland has eight vessels, Sweden has seven vessels, Canada has

²³⁹ Committee on the Assessment of U.S. Coast Guard Polar Icebreaker Roles and Future Needs, National Research Council, *Polar Icebreaker Roles and U.S. Future Needs: A Preliminary Assessment*. Washington, DC: The National Academies Press, 2005. Heavy icebreakers are defined as vessels capable of breaking 6 feet of ice continuously at 3 knots, and can back and ram through at least 20 feet of ice.

²⁴⁰ U.S. Coast Guard Fact Sheet Fiscal Year 2013 President's Budget. http://www.uscg.mil/posturestatement/docs/FY_2013_Budget_Fact_Sheet.pdf.

²⁴¹ Ronald O'Rourke, "Coast Guard Polar Icebreaker Modernization: Background and Issues for Congress," Congressional Research Service, June 14, 2012, 22, <http://www.fas.org/sgp/crs/weapons/RL34391.pdf>.

²⁴² No author, "India to acquire icebreaker worth Rs 800 cr for polar exploration," The Times of India, June 2, 2013, http://articles.timesofindia.indiatimes.com/2013-06-02/science/39690091_1_xuelong-hi-tech-ship-icebreaker.

eight vessels, and Denmark has four vessels.²⁴³ (Denmark, Iceland??) Recently, Congress allocated \$8 million to the U.S. Coast Guard towards design of a new heavy polar icebreaker. Construction will cost \$850 million.²⁴⁴ But this is not enough to effectively manage the polar icebreaking mission in the changing Arctic. Despite limited budgets, the U.S. needs to invest in additional icebreakers to maintain the maritime transportation system, advance U.S. security and sovereignty interests, and continue scientific research. The major implementation challenge for icebreaker construction is the funding required by Congress to allow the Coast Guard to construct additional vessels.

E. UNCLOS

UNCLOS must be the legal bedrock of U.S. Arctic policy. UNCLOS is the framework of cooperation within the region. Other nations have rejected the push for an Arctic treaty, like the Antarctic Treaty, favoring instead the UNCLOS structure.²⁴⁵ By ratifying UNCLOS, the U.S. will advance a “remarkable treaty that expands U.S. sovereign rights, powerfully serves U.S. needs for the Navy and the Coast Guard, and provides American industry with the security necessary to generate jobs and growth.”²⁴⁶ By joining the UNCLOS alliance, the U.S. will be better able to settle maritime claims and disputes between other Arctic nations on issues such as outer continental shelf and maritime boundary line issues. The U.S. will also be in a better position to challenge the jurisdictional claims of both Russia (Northern Sea Route) and Canada (Northwest Passage). Only through UNCLOS can the U.S. make rightful claim to the Extended Continental Shelf and the natural resources within it. Implementation requires Congressional action and pressure by the Administration to get UNCLOS to a vote in the Senate.

²⁴³ No author, “Where are America’s Badly Needed Icebreakers?” Popular Mechanics (December 7, 2012), <http://www.popularmechanics.com/technology/military/navy-ships/where-are-americas-badly-needed-icebreakers-14829862>.

²⁴⁴ Ibid.

²⁴⁵ Conley and Kraut, *U.S. Strategic Interest in the Arctic An Assessment of Current Challenges and New Opportunities for Cooperation*, 20.

²⁴⁶ John Norton Moore, “Conservatives And The Law Of The Sea Time Warp,” *Wall Street Journal*, July 12, 2012.

The current state of U.S. Arctic policy leaves lives at risk, natural resources unrealized, along with marine wildlife and the Arctic Alaskan Native way-of-life woefully unprotected. Other Arctic nations are reaping the benefits of the opening of the far north, while the U.S. watches and waits with no meaningful ability to enforce, police, or respond in the region. By creating a U.S. Arctic committee, with the legal and fiscal authority to establish and execute Arctic policy and directing specific measures such as icebreaker construction, infrastructure development, building of a joint U.S. base and ratifying UNCLOS, the U.S. can move forward in the region to more fully support Alaskan Natives, industry, defense, and homeland security needs to protect U.S. interests and sovereignty in the future.

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LIST OF REFERENCES

- 33 Code of Federal Regulations Part 160.
- 33 United States Code §2701 et seq.
- 40 Code of Federal Regulations 300.5 Title 40.
- “90 Billion Barrels of Oil and 1,670 Trillion Cubic Feet of Natural Gas Assessed in the Arctic.” USGS Newsroom, July 23, 2008. Accessed February 15, 2013. http://www.usgs.gov/newsroom/article.asp?ID=1980&from=rss_home/#.UAHtIHj3Ct8.
- Alaska Northern Waters Task Force Findings and Recommendations 2012. Accessed February 1, 2013. http://housemajority.org/joule/pdfs/27/hjr0034_anwtf_recommendations.pdf.
- Allen, Thad, Admiral. Testimony Before the Subcommittee of the Committee on the Appropriations U.S. Senate. 111th Congress (August 20, 2009), Anchorage, AK.
- Arctic Council. “Agreement on Cooperation on Marine Oil Pollution, Preparedness and Response in the Arctic,” The Arctic Council (May 15, 2013). Accessed June 22, 2013. <http://www.state.gov/r/pa/prs/ps/2013/05/209406.htm>.
- Arctic Council. *Arctic Marine Shipping Assessment 2009, second printing (2009)*. Accessed December 15, 2012. <http://www.pame.is/amsa-2009-report>.
- “Arctic Council Chair met Canada’s Minister for the Arctic Council for Discussions on the Arctic Council Chairmanship News.” Arctic Council, March 11, 2013. Accessed June 19, 2013. <http://www.arctic-council.org/index.php/en/about-us/chairmanship-2/176-chairmanship-news/658-arctic-council-chair-meets-canada-s-minister-for-the-arctic-council-for-discussions-on-the-arctic>.
- Arctic Council Finland Country Profile (May 2, 2011). Accessed June 22, 2013. <http://www.arctic-council.org/index.php/en/about-us/member-states/finland>.
- Arctic Shield 2012 Spilled Oil Response System (SORS) Deployment AAR (August 31, 2012), 4.
- Arctic Shield 2012 Spilled Oil Response System (SORS) Deployment FTX, Exercise Plan (July 30, 2012).
- Bishay, Nancy. “Government of Canada Takes Action to Protect Canadian Arctic Waters,” Transport Canada Press Release (June 22, 2010). Accessed June 22, 2013. <http://www.tc.gc.ca/eng/mediaroom/releases-2010-h078e-6019.htm>.

- Canada's form of government. Accessed June 22, 2013.
<http://www.canada.gc.ca/aboutgov-ausujetgouv/structure/menu-eng.html>.
- Citizens for Global Solutions. "The United States and the Law of the Sea," (undated),
 Accessed June 22, 2013. <http://globalsolutions.org/law-justice/law-sea-treaty>.
- "Coast Guard completes Arctic spilled oil recovery systems test," *Alaska Dispatch*,
 (August 2, 2012). Accessed February 8, 2013.
<http://dutchharbortelegraph.com/coast-guard-completes-arctic-spilled-oil-recovery-systems-test-p516-129.htm>.
- Committee on the Assessment of U.S. Coast Guard Polar Icebreaker Roles and Future Needs. National Research Council, *Polar Icebreaker Roles and U.S. Future Needs: A Preliminary Assessment*. Washington, DC: The National Academies Press, 2005.
- Conley, Heather, and Kraut, Jamie. *U.S. Strategic Interest in the Arctic An Assessment of Current Challenges and New Opportunities for Cooperation*. (Washington, DC: Center for Strategic and International Studies, April 2010).
- Conley, Heather. "A New Security Architecture for the Arctic—an American Perspective." Center for Strategic and International Studies (January 2012).
- Cruise vessel HANSEATIC information and specifications. Accessed June 21, 2013.
http://en.wikipedia.org/wiki/MS_Hanseatic.
- Danish Ministry of Defence. Danish Defence Agreement 2010–2014 (June 24, 2009), 12. Accessed February 6, 2013. <http://merln.ndu.edu/whitepapers/Denmark2010-2014English.pdf>.
- Demarban, Alex. "Begich panel considers deepwater port to support Arctic shipping," *Alaska Dispatch* (April 9, 2012). Accessed June 1, 2013.
<http://www.alaskadispatch.com/article/begich-panel-considers-deepwater-port-support-arctic-shipping>.
- Demer, Lisa. "Shell Oil drilling rig headed to Alaska's Arctic," *News Tribune*, June 24, 2012. Accessed April 1, 2013. <http://www.thenewstribune.com/2012/06/28/v-printerfriendly/2225152/shell-oil-drilling-rig-headed.html>.
- Department of Defense. *Quadrennial Defense Review Report*. (Washington, DC: Department of Defense, February 2010).
- . *Intent to Prepare an Environmental Impact Statement for Arctic Deep Draft Ports Navigation Improvements Feasibility Study*. Federal Register Volume 78, Number 97 (May 20, 2013).
- . *Report to Congress on Arctic Operations and the Northwest Passage*. May 2011.

- Desmi Corporation. Polar Bear Skimmer information. Accessed February 2, 2013. http://www.desmi.com/UserFiles/file/News/New_proven_ice_skimmer.pdf.
- Dlouhy, Jennifer. "Alaska whale hunters wary of oil drilling," San Francisco Chronicle, November 23, 2012. Accessed November 1, 2012. <http://www.sfgate.com/nation/article/Alaska-whale-hunters-wary-of-oil-drilling-4062827.php>.
- Duffy, Aimee. "The Coming Boom in Arctic Drilling." (Institute of the North, April 4, 2012). Accessed June 5, 2013. http://www.institutenorth.org/assets/images/uploads/articles/The_Coming_Boom_in_Arctic_Drilling_-_DailyFinance.pdf.
- Ebinger, Charles, and Evie Zambetakis. *The Geopolitics of Arctic Melt*, International Affairs vol. 85, June 2009. Accessed August 20, 2013. http://www.brookings.edu/~media/research/files/papers/2009/11/arcticpercent20meltpercent20ebingerpercent20zambetakis/11_arctic_melt_ebinger_zambetakis.pdf.
- Elwood Brehmer. "Additional Cruise Ships, Airline Capacity Coming in 2013," *Alaska Journal of Commerce* (December 27, 2012). Accessed June 21, 2013. <http://www.alaskajournal.com/Alaska-Journal-of-Commerce/December-Issue-5-2012/Additional-cruise-ships-airline-capacity-coming-in-2013/>.
- Fitzpatrick, Meagan. "Arctic Military Exercise Targets Human-Smuggling Ecotourists," CBC News (August 24, 2012). Accessed June 17, 2013. <http://www.cbc.ca/news/politics/story/2012/08/24/pol-harper-north-tour-friday.html>.
- Fjaertoft, Daniel Buikema. "Norwegian Grand Strategy and the Arctic." Global Brief (27 June 2011). Accessed February 5, 2013. <http://globalbrief.ca/blog/2011/06/27/norwegian-grand-strategy-and-the-arctic/>.
- Garamone, Jim. "Unified Command Plan Reflects Arctic's Importance." *American Forces Press Service*, April 7, 2011.
- Gardner, Robert. "U.S. Must ratify Law of the Sea Convention," American Security Project (June 13, 2012). Accessed May 1, 2013. <http://americansecurityproject.org/blog/2012/us-must-ratify-law-of-sea-convention/>.
- Gellerman, Bruce. "Native Alaskans and Offshore Drilling." Living on Earth (January 4, 2011). Accessed May 1, 2013. <http://www.loe.org/shows/segments.html?programID=11-P13-00002&segmentID=2>.

- General Briefing Note on Canada's Self-Government and Land Claims Policies and the Status of Negotiations. "Aboriginal Affairs and Northern Development Canada." (January 2012). 40–41. Accessed February 5, 2013. http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ/STAGING/texte-text/al_ldc_ccl_gbnjan2012_1324327698586_eng.pdf.
- Gove, David, Rear Admiral, U.S. Navy. "Arctic Melt: Reopening a Naval Frontier." *Proceedings Magazine*, February 2009. Accessed August 10, 2012. www.usni.org/print/4133.
- Government Accountability Office. *Arctic Capabilities* (GAO-12–180, January 2012). Accessed August 10, 2012. <http://gao.gov/products/GAO-12–180>.
- Government of Canada. "Statement on Canada's Arctic Foreign Policy: Exercising Sovereignty and Promoting Canada's Northern Strategy Abroad." Foreign Affairs and International Trade Canada, August 20, 2010. Accessed June 21, 2013. http://www.international.gc.ca/polar-polaire/canada_arctic_foreign_policy_booklet-la_politique_etrangere_du_canada_pour_arctique_livret.aspx?lang=eng&view=d.
- Governments of Denmark, Greenland and the Faroe Islands. "Kingdom of Denmark Strategy for the Arctic 2011–2020." (2011). Accessed June 18, 2013. <http://uk.nanoq.gl/~media/29cf0c2543b344ed901646a228c5bee8.ashx>.
- "Harper on Arctic: 'Use it or Lose It.'" *Times Colonist*, July 10, 2007. Accessed June 21, 2013. <http://www.canada.com/topics/news/story.html?id=7ca93d97-3b26-4dd1-8d92-8568f9b7cc2a>.
- Harris, Gail. "U.S. must remove the UNCLOS Handcuffs." *The Diplomat*, March 23, 2012. Accessed June 19, 2013. <http://thediplomat.com/2012/03/23/u-s-must-remove-unclos-handcuffs/>.
- Hayes, David. "Managing for the Future in a Rapidly Changing Arctic: A Report to the President." Interagency Working Group on Domestic Energy Development and Permitting in Alaska, (April 2013). Accessed Jun 21, 2013. http://arcticlcc.org/assets/resources/Managing_for_the_Future_in_a_rapidly_changing_arctic.pdf.
- Heimbuch, Hannah. "Coast Guard mission in Arctic morphs in response to needs of coastal Alaskans." *Alaska Dispatch*, November 8, 2012. Accessed May 1, 2013. <http://www.alaskadispatch.com/article/coast-guard-mission-arctic-morphs-response-needs-coastal-alaskans>.
- HH-60J "Jayhawk" Information and Specifications. Accessed May 4, 2013. <http://www.webcitation.org/5r3qmXW77>.

- History of the Arctic Council. Accessed April 27, 2011. <http://www.arctic-council.org/index.php/en/about-us/arctic-council/history>.
- “Icebreaker is 1st Chinese vessel to cross Arctic Ocean.” Associated Press (September, 26, 2012). Accessed May 4, 2013. <http://www.cbc.ca/news/technology/story/2012/09/27/arctic-china-icebreaker.html>.
- “India to acquire icebreaker worth Rs 800 cr for polar exploration.” *The Times of India*, June 2, 2013. Accessed June 5, 2013. http://articles.timesofindia.indiatimes.com/2013-06-02/science/39690091_1_xuelong-hi-tech-ship-icebreaker.
- Jakes, Lara. “Critics Lukewarm on U.S. Plans in Arctic,” *Seattle Times*, May 13, 2013.
- Kauffman, Andrew. “Coast Guard Cutter Juniper Skims oil in the Gulf of Mexico.” *Coast Guard News*, July 15, 2010. Accessed March 5, 2013. <http://coastguardnews.com/coast-guard-cutter-juniper-skims-oil-in-the-gulf-of-mexico/2010/07/15/>.
- Kingdom of Norway. “New Building Blocks in the North: The Next sStep in the Government’s High North Strategy,” Ministry of Foreign Affairs Norway,” (2009). Accessed June 20, 2013. http://www.regjeringen.no/upload/UD/Vedlegg/Nordomr_percentC3_percentA5dene/new_building_blocks_in_the_north.pdf.
- Kingdom of Norway. “The Norwegian Government’s High North Strategy.” (December 2006). Ministry of Foreign Affairs Norway (2006). Accessed February 7, 2013. <http://www.regjeringen.no/upload/UD/Vedlegg/strategien.pdf>.
- Kingdom of Sweden. “Sweden’s strategy for the Arctic region.” Government Offices of Sweden. (2011). Accessed February 5, 2013. <http://www.government.se/content/1/c6/16/78/59/3baa039d.pdf>.
- Living on Earth. “Native Alaskans and Offshore Drilling” (January 04, 2011). Accessed June 20, 2013. <http://www.loe.org/shows/segments.html?programID=11-P13-00002&segmentID=2>.
- Lowther, Paula. “Arctic Deep Water Port.” *Alaska Business Monthly*, January 2012. Accessed August 5, 2012. <http://www.akbizmag.com/Alaska-Business-Monthly/January-2012/Arctic-Deep-Water-Port/>.
- Lloyd’s Fairplay. Accessed February 5, 2013. <http://www.fairplay.co.uk/>.
- Meena, Menon, and Sandeep Dikshit. “India gets observer status in Arctic Council.” *The Hindu*, May 15, 2013. Accessed May 7, 2013. <http://www.thehindu.com/news/international/world/india-gets-observer-status-in-arctic-council/article4717770.ece>.

- Mills, Donna. "U.S., Canada Expand Arctic Cooperation, Military Training." *American Forces Press Service*, December 11, 2012. Accessed June 20, 2013. <http://www.defense.gov/news/newsarticle.aspx?id=118768>.
- "Minister Duncan Announces more Support for Clean Energy Projects in Aboriginal and Northern Communities." Aboriginal Affairs and Northern Development Canada Press Release (August 31, 2011). Accessed February 8, 2013. <http://www.aadnc-aandc.gc.ca/eng/1314794535694/1314794741066>.
- Moore, John Norton. "Conservatives And The Law Of The Sea Time Warp," *Wall Street Journal*, July 12, 2012.
- Murphy, Kim. "Arctic thaw brings new security worries." *Los Angeles Times*, October 19, 2012. Accessed February 5, 2013. <http://articles.latimes.com/2012/oct/19/nation/la-na-arctic-security-20121019>.
- Myers Steven Lee. "Arctic Council Adds 6 Nations as Observer States, Including China." *New York Times*, 15 May 2013. Accessed May 20, 2013. <http://www.nytimes.com/2013/05/16/world/europe/arctic-council-adds-six-members-including-china.html?pagewanted=print>.
- National Defence and Canadian Forces. "Canada First Defence Strategy." (May 2008), 17. Accessed February 2, 2013. http://www.forces.gc.ca/site/pri/first-premier/June18_0910_CFDS_english_low-res.pdf.
- National Oceanic and Atmospheric Agency (NOAA) Information on Alaska Fisheries. Accessed February 2, 2013. <http://alaskafisheries.noaa.gov/protectedresources/whales/bowhead/>.
- National Parliament of Iceland. "A Parliamentary Resolution on Iceland's Arctic Policy." (March 28, 2011). Accessed February 2, 2013. <http://www.mfa.is/media/nordurlandaskrifstofa/A-Parliamentary-Resolution-on-ICE-Arctic-Policy-approved-by-Althingi.pdf>.
- National Research Council. *Polar Icebreaker Roles and U.S. Future Needs: A Preliminary Assessment*. Washington, DC: The National Academies Press, 2005.
- National Security Presidential Directive-66 and Homeland Security Presidential Directive -25 (January 2009). II.A. Accessed August 4, 2013. <http://www.fas.org/irp/offdocs/nspd/nspd-66.htm>.
- Norwegian Ministry of Foreign Affairs. "The Norwegian Government's High North Strategy" (December 2006). Accessed February 14, 2013. <http://www.regjeringen.no/upload/UD/Vedlegg/strategien.pdf>.

- “Operation NANOOK 2012.” Office of the Prime Minister of Canada, August 24, 2012. Accessed June 18, 2013. <http://www.pm.gc.ca/eng/media.asp?id=4981>.
- O’Rourke, Ronald. *Changes in the Arctic: Background and Issues for Congress*. (Congressional Research Service, June 15, 2012).
- . “Coast Guard Polar Icebreaker Modernization: Background and Issues for Congress.” Congressional Research Service. June 14, 2012, 22. Accessed August 6, 2013. <http://www.fas.org/sgp/crs/weapons/RL34391.pdf>.
- Papp, Robert, Jr., Admiral. “Uncharted Ice: The U.S. Coast Guard’s New Arctic Strategy.” Speech at CSIS (May 21, 2013). Accessed June 21, 2013. <http://csis.org/multimedia/video-military-strategy-forum-admiral-robert-j-papp-jr-commandant-us-coast-guard>.
- . Written Testimony of U.S. Coast Guard Commandant for a Senate Committee on Appropriations, Subcommittee on Homeland Security field hearing titled “U.S. Coast Guard Operations in Alaska.” Kodiak, AK. (August 6, 2012).
- Petersen, Nikolaj. “The Arctic as a New Arena for Danish Foreign Policy: The Ilulissat Initiative and its Implications” (Danish Foreign Policy Yearbook 2009, Danish Institute for International Studies, 2009), 55. Accessed February 6, 2013. http://www.diis.dk/graphics/Publications/Books2009/Yearbook2009/Yearbook_2009_web.pdf.
- Pettersen, Trude. “Russia Launches Program on Arctic Development to 2020.” Barents Observer, February 20, 2013. Accessed June 21, 2013. <http://barentsobserver.com/en/arctic/2013/02/russia-launches-program-arctic-development-2020-20-02>.
- Plumer, Brad. “Even as the ice melts, drilling in the Arctic gets tougher.” *Washington Post*, 26 September 2012. Accessed May 4, 2013. <http://www.washingtonpost.com/blogs/ezra-klein/wp/2012/09/26/backlash-against-offshore-arctic-drilling-grows/>.
- Pugliese, David. “Canada Ramps Up Arctic Arsenal,” *Defense News* (June 25, 2012). Accessed June 21, 2013. <http://www.defensenews.com/article/20120625/DEFREG02/306250001/Canada-Ramps-Up-Arctic-Arsenal>.
- Rabkin, Jeremy. *The Law of the Sea Treaty: A Bad Deal for America* (Competitive Enterprise Institute, No.3, 2006). Accessed August 6, 2012. <http://cei.org/pdf/5352.pdf>.

- Republic of Finland. "Finland's Strategy for the Arctic Region." Prime Minister's Office Publication, (2010), 7. Accessed February 3, 2013. <http://formin.finland.fi/public/download.aspx?ID=63216&GUID=percent7BC92863F7-1188-4975-9CC8-34EA16C26D07percent7D>.
- Republic of Iceland. "A Parliamentary Resolution on Iceland's Arctic Policy" (March 28, 2011). Accessed June 20, 2013. <http://www.mfa.is/media/nordurlandaskrifstofa/A-Parliamentary-Resolution-on-ICE-Arctic-Policy-approved-by-Althingi.pdf>.
- Reiss, Bob. *The Eskimo and the Oil Man*. Business Plus: New York, 2012.
- Remarks by General Gene Renuart at the AFCEA Solutions Series Conference, Washington, D.C., (May 5, 2009).
- Rogin, Josh. "Who is in Charge of Arctic Policy?" (May 7, 2010). Accessed August 10, 2012. http://thecable.foreignpolicy.com/posts/2010/05/07/who_s_in_charge_of_arctic_policy.
- Rosenthal, Elizabeth. "Race Is On as Ice Melt Reveals Arctic Treasures." *New York Times*. September 18, 2012. Accessed February 20, 2013. <http://www.nytimes.com/2012/09/19/science/earth/arctic-resources-exposed-by-warming-set-off-competition.html>.
- Russian Federation. "The Development Strategy of the Arctic Zone of the Russian Federation" (February 20, 2013).
- Sonntag, Marc, and Felix Lüth. "Who Owns the Arctic? A Stocktaking of Territorial Disputes." *The Global Journal* (December 21, 2011). Accessed August 15, 2012. <http://theglobaljournal.net/article/view/439/>.
- Spill Response in the Arctic Offshore." American Petroleum Institute and the Joint Industry Programme on Oil Spill Recovery in Ice (February 2, 2012), 102. Accessed February 10, 2013. http://www.api.org/~media/files/ehs/clean_water/oil_spill_prevention/spill-response-in-the-arctic-offshore.ashx.
- Smith, Reginald. A New Partnership Paradigm or the Next "Cold War?" *Joint Forces Quarterly* (62, 3rd Quarter, July 2011). Accessed February 2, 2013. <http://www.ndu.edu/press/jfq-62.html>.
- Steiner, Rick. "President Obama should reject last-minute Arctic Policy." *Anchorage Daily News*, January 19, 2009.
- Stewart, Patrick. "(Almost) Everyone Agrees: The U.S. Should Ratify the Law of the Sea Treaty." *The Atlantic*, June 10, 2012. Accessed May 29, 2013. <http://www.theatlantic.com/international/archive/2012/06/-almost-everyone-agrees-the-us-should-ratify-the-law-of-the-sea-treaty/258301/>.

- Strader, Olin. "A Bering Strait Vessel Traffic Service: Critical Infrastructure for an Opening Arctic (Part I)." The Arctic Institute, Center for Circumpolar Security Studies (February 6, 2012). Accessed February 2, 2013. <http://www.thearcticinstitute.org/2012/02/1278-bering-strait-vessel-traffic-service.html>.
- Task Force on Search and Rescue. "Agreement on Cooperation in Aeronautical and Maritime Search and Rescue in the Arctic." The Arctic Council (May 2011). Accessed June 22, 2013. <http://www.ifrc.org/docs/idrl/N813EN.pdf>.
- The White House. "The National Strategy for the Arctic Region." May 10, 2013. Accessed May 15, 2013. http://www.whitehouse.gov/sites/default/files/docs/nat_arctic_strategy.pdf.
- Titley, David, and Courtney St. John. *Arctic Security Considerations and the U.S. Navy's Roadmap for the Arctic*, Naval War College Review, Spring 2010, vol. 63, no. 2 (May 5, 2013).
- Troedsson, Peter, Captain USCG. "A Coast Guard for the Emerging Arctic." Council on Foreign Relations. May 31, 2013. Accessed June 20, 2013. <http://www.cfr.org/arctic/coast-guard-emerging-arctic/p30820>.
- United Nations Convention on the Law of the Sea. Annex II. Commission on the limits of the Continental Shelf, 1982. Accessed August 2, 2013. http://www.un.org/Depts/los/convention_agreements/texts/unclos/annex2.htm.
- United Nations Lists of Signatories to the Law of the Sea Convention. [http://www.un.org/Depts/los/convention_agreements/convention_declarations.htm#Denmark percent20Upon percent20ratification](http://www.un.org/Depts/los/convention_agreements/convention_declarations.htm#Denmark%20Upon%20ratification) (accessed February 2, 2013).
- United States Army Corps of Engineers. "Intent to Prepare an Environmental Impact Statement for Arctic Deep Draft Ports Navigation Improvements Feasibility Study," Federal Register Volume 78, Number 97 (May 20, 2013).
- "United States Coast Guard Arctic Strategy." The United States Coast Guard Headquarters, Washington, D.C., May 2013.
- United States Coast Guard Fact Sheet Fiscal Year 2013 President's Budget. Accessed May 2, 2013. http://www.uscg.mil/posturestatement/docs/FY_2013_Budget_Fact_Sheet.pdf.
- United States Coast Guard Reimbursable Standard Rates, Commandant Instruction 7310.1N (March 28, 2012). Accessed May 2, 2013. http://www.uscg.mil/directives/ci/7000-7999/CI_7310_1N.pdf.

United States Coast Guard, U.S. Marine Corps, U.S. Navy. "A Cooperative Strategy for Twenty-First Century Seapower." U.S. Navy, October 2007. Accessed June 21, 2013. <http://www.navy.mil/maritime/Maritimestrategy.pdf>.

Vukmanovic, Oleg, and Koranyi Balazs. "Russia's revival of Arctic Northern Sea Route at Least 10 Years Away." Reuters, January 25, 2013. Accessed May 5, 2013. http://www.thestar.com/business/2013/01/25/russias_revival_of_arctic_northern_sea_route_at_least_10_years_away.html.

Wang Zhenghua. "China to establish research center for the Arctic region." *The China Daily*, 6 June 2013. Accessed June 10, 2013. http://www.chinadaily.com.cn/cndy/2013-06/06/content_16574051.htm.

Weber, Bob. "Russia stuns Arctic Council by suspending aboriginal group from meetings." *The Globe and Mail* (November 15, 2012). Accessed February 6, 2013. <http://www.theglobeandmail.com/news/politics/russia-stuns-arctic-council-by-suspending-aboriginal-group-from-meetings/article5360638/>.

"Where are America's Badly Needed Icebreakers?" *Popular Mechanics* (December 7, 2012). Accessed December 15, 2012. <http://www.popularmechanics.com/technology/military/navy-ships/where-are-americas-badly-needed-icebreakers-14829862>.

Wright, Thomas. "Outlaw of the Sea: The Senate Republicans' UNCLOS Blunder." Brookings Institute, August 7, 2012. Accessed June 9, 2013. <http://www.brookings.edu/research/articles/2012/08/07-sea-law-wright>.

Young, Oran. *Creating Regimes, Arctic Accords, and International Governance*. Cornell University Press, 1998.

Yukon Native Language Center. "Yukon First Nations Programs and Partnership Units." June 5, 2012. Accessed June 21, 2013. <http://www.yesnet.yk.ca/firstnations/fnationgroups.html>.

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