

The Arctic: Has America Been Left In the Cold?

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Abstract

The Arctic is changing. U.S. policies and resource allocation must also change. On September 3, 2015, President Barak Obama became the first sitting President to travel above the Arctic Circle. The purpose of his trip was to raise awareness of regional issues created by climate change. This administration has advanced U.S. Arctic interests compared to its predecessors. However, there is still a long road ahead fraught with political and logistic challenges that must be resolved. As environmental conditions and technological advances have increased man's ability to operate in the Arctic, the need for persistent presence has increased proportionally. Operational implications of these emerging missions have affected not only the USCG, but the Department of Defense and a plethora of other governmental agencies as well. As a nation, the U.S. currently does not have the physical nor the political resources to support national security objectives. However, by focusing on the four greatest areas of strategic interest economic expansion, international diplomacy, national security strategy, and the projection of power across the full range of military operations, one can begin to prioritize areas within the national strategy for resource allocation increases.

The Arctic: Has America Been Left In the Cold?

The United States is an Arctic Nation with broad and fundamental interests in the Arctic Region, where we seek to meet our national security needs, protect the environment...and strengthen international cooperation on a wide range of issues.

—President Barak Obama¹

On September 3, 2015, President Barak Obama became the first sitting President to travel above the Arctic Circle. The purpose of his trip was to raise awareness of regional issues created by climate change. The Obama's Administration has advanced U.S. Arctic interests compared to previous administrations by creating national policies and defined strategic objectives with the goal of shaping the nation's roles, responsibilities, and future actions in the Arctic. History might ultimately determine one of President Obama's most successful domestic and foreign policy bodies of work to be the Arctic and climate change. However, there is still a long road ahead fraught with political and logistic challenges that must be resolved before the United States can legitimately establish itself as a leader on Arctic issues within the international community.

The Arctic is in flux, with environmental changes making large areas once inaccessible now exposed to passage. Regardless of what factors may have caused these environmental changes, Arctic Nations now have ever increasing access to vast expanses of ocean and seabed, previously hidden under the polar ice cap. This region is the last frontier for claims of sovereignty. The Arctic portends to contain vast riches of natural resources, economic windfalls from shipping and tourism, and strategic military implications, all of which hold the potential to alter the world's geopolitical balance of power. For the economic implications alone, the Arctic is a region that merits significant

national attention. However, the economics of the Arctic are only one dimension of this complex international relations challenge.

Mariners have long dreamt of finding a viable northern passage from the Pacific Ocean to the Atlantic Ocean. For the first time in recorded history, northern passage is becoming a reality. The economic implications of reducing transit time from Asia to Europe cannot be understated. The more compelling and strategic implication of these emerging northern sea lines of communication (SLOCs) is the need to contend with issues of freedom of navigation, maritime domain awareness, and projection of national power. Political leaders have not yet addressed these fundamental Arctic issues.

In his 2010 National Security Strategy (NSS), President Obama articulated the strategic challenges facing the United States of America, as well as the rest of the international community. Complex and changing physical, political, economic, and military environments of the Arctic pose significant challenges to the national security interests of the United States. The world's leaders and practitioners of international relations must endeavor to define who is responsible for ensuring safe passage of commercial mariners and their cargo in the Arctic. A determination needs to be made as to whether these new SLOCs are international or territorial waters. Such a determination might provide tactical military advantages to nations claiming sovereignty. These and other emerging challenges to international diplomacy must be resolved as the U.S. seeks to refine and implement its national strategy.

The roles and responsibilities of various agencies representing the United States in the Arctic are extensive and ambiguous, and deserve greater attention by the nation's leaders. The Arctic is first a maritime domain, largely coastal in nature. Therefore, a

logical assumption based upon currently assigned missions is that the U.S. Coast Guard (USCG) might be the best agency to assume the lead governmental role. The USCG has performed statutorily required missions in the Arctic dating back to the mid-1800's, following the purchase of the Alaska Territory. In 1891, Coast Guard Captain Michael Healy transported herds of reindeer from Siberia on board the Revenue Cutter BEAR, to ensure survival of the indigenous people living in what would become the State of Alaska. During the Cold War, the U.S. Navy's (USN) Military Sealift Command collaborated with the USCG and Canadian military forces to construct a Distant Early Warning (DEW) Line to protect North America against hostile aircraft attempting to invade by flying over the polar region.²

As environmental conditions and technological advances have increased man's ability to operate in the Arctic, the need for persistent presence has increased proportionally. Operational implications of these emerging missions have affected not only the USCG, but the Department of Defense and a plethora of other governmental agencies as well. Further definition of each military branch's Arctic roles and responsibilities is critical to ensure effective joint operations and efficient utilization of national resources.

As a nation, the U.S. currently does not have the physical nor the political resources to support all of the President's Arctic security objectives. However, by focusing on the four greatest areas of strategic interest – economic expansion, international diplomacy, national security strategy, and the projection of power across the full range of military operations – one can begin to prioritize areas within the strategy for resource allocation increases. It is through these four “lenses” that this report will

analyze the capacity and readiness of the United States government and Department of Defense to operate in the Arctic.

The Environment and Economic Expansion

Inextricably linked to environmental changes are increased human activity and exploration for economic gains in the Arctic. The reduced volume of sea ice, commensurate with climate change, is opening the way for increased fishing as well as exploration for oil, natural gas, and minerals. Additionally, there has been an increased presence of nations seeking to establish and maintain claims to previously untapped natural resources and potentially strategic waterways.³ The graph below shows a consistently negative trend line depicting the reduction of ice coverage by an average of approximately three percent annually, which provides impetus for economic growth and exploration.

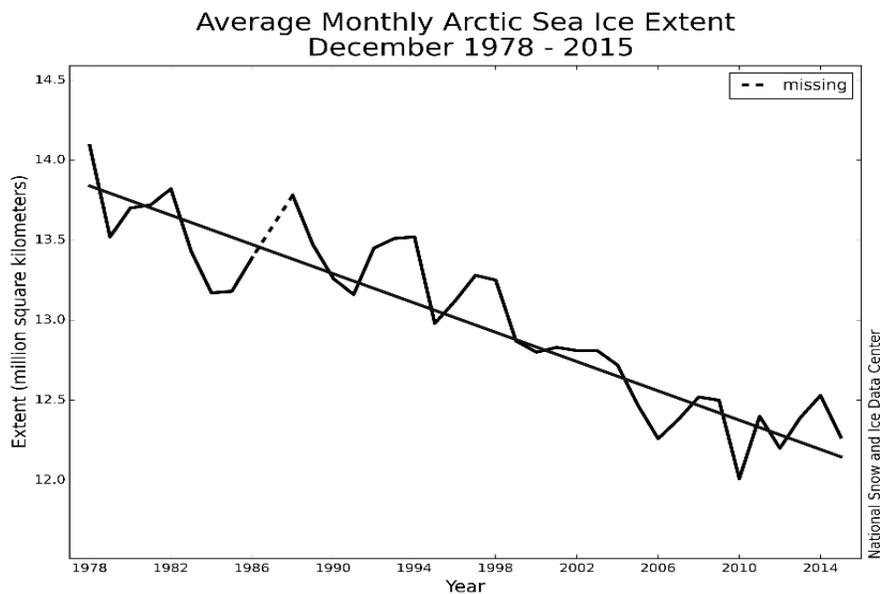


Figure 1. Decreasing Annual Sea Ice Coverage⁴

Scientists estimate that by 2030 this reduction in annual sea ice coverage will transform the Arctic from permanently ice-covered to seasonally ice-free.⁵ The expansion of seasonally open waters and greater access to the seabed may generate significant economic revenue through exports of oil, natural gas, and mined minerals. Commercial fishing will also generate revenue, to a lesser extent.⁶

Although not yet economically significant, commercial fishing could provide a useful template for international diplomatic discussions in the Arctic. Retired Robert Admiral Papp, Jr., former Coast Guard Commandant, now serving as the U.S. State Department's Special Representative for the Arctic, recently testified before Congress on the Arctic's emerging economic importance. Noting the international community's significant progress in preventing unregulated fishing on the high seas of the Arctic Ocean, he asserted that while there are currently no significant commercial fisheries in the Arctic but "it is reasonable to expect that with diminishing sea ice...commercial fisheries are possible in the foreseeable future."⁷

In contrast, cost-saving benefits to international shipping through the Arctic are already becoming a reality. Two northern trade routes are becoming seasonally viable waterways as polar sea ice continues increased seasonal melting: 1) The Northwest Passage, which connects the Pacific to the Atlantic Ocean via a route over North America, and 2) The Northern Sea Route connecting Europe to Asia primarily through Russian waters.

The USCG noted a 118 percent increase in maritime transits through the Bering Strait between 2008 and 2012 and 1 million tons of cargo shipped through the strait in 2012 alone.⁸ (For perspective, approximately 70 percent of bulk carriers have a capacity

between 10 and 59 thousand tons.⁹) Additionally, “Arctic tourism doubled between 2004 and 2007, and intra- and trans-Arctic transport has risen at a similar rate.”¹⁰ Between 2009 and 2013 the number of cargo ships that transited the Northern Sea Route increased from five to 71 vessels and the first supertanker successfully completed the voyage in 2011.¹¹ However, compared to the 17 thousand ships that transit the Suez Canal annually, the Northern Sea Route is not yet a commercially significant shipping lane.¹²

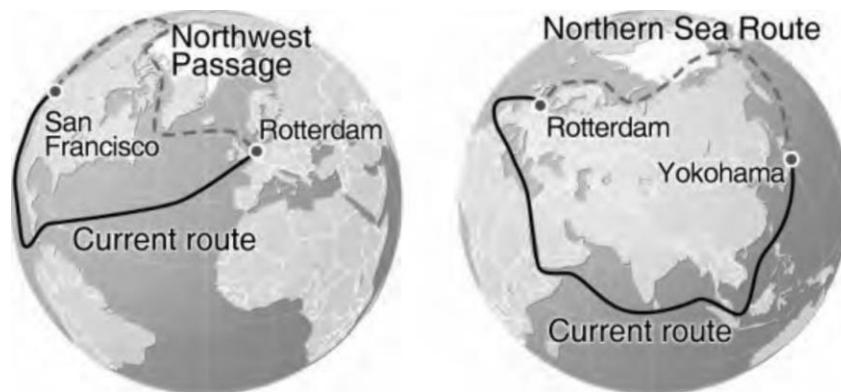


Figure 2. Northern v. Traditional Sea Routes¹³

The greatest sustainable future growth and potential for profit is energy exploration for companies seeking to drill or mine the Arctic, although economists estimate that when the price of crude oil is below \$50 per barrel, the return on investment for Arctic oil does not represent a viable business model.¹⁴ At the time of this writing, crude oil is trading at \$39 per barrel, down from the 2008 apex of \$140 per barrel.¹⁵ Notwithstanding the potential profit fluctuations for Arctic energy exploration, the sheer volume of oil and natural gas reserves in the Arctic will not change. Scientists estimate that up to 13 percent of the undiscovered oil and 30 percent of the natural gas are contained in this region.¹⁶ As the price of oil increases, Arctic energy exploration will

again be a viable business. Regardless of when the natural resource rush resumes, the recent spike in exploration has raised concerns about oil spill response from both offshore wells and tankers transiting the Arctic.

The potential economic impact of the Arctic, though uncertain, is staggering when the combined revenue of shipping, energy production, mineral harvesting, and commercial fishing is calculated. According to research by the Council on Foreign Relations, if Arctic summers are free of ice in the upcoming decades as environmental specialists predict, that would “potentially open the region up to hundreds of billions of dollars of investment, including energy production, shipping, and fishing.”¹⁷

Challenges

Reduction of shipping distances is one of the greatest opportunities for both the Northwest Passage and Northern Sea Route, but also poses significant risks to vessels. Until either route is confirmed ice free, consistent and safe navigation is not possible. This requires either escorting of commercial vessels by icebreakers or advanced methods of remote monitoring to ensure routes are ice free and safe before vessels transit. Currently, there is a lack of available technology to monitor shipping lanes during the summer season, so transiting vessels have had to rely on icebreakers or their own reinforced hulls for safety. Many arctic nations have not fully acknowledged or addressed these concerns.

Yet, the strategic and economic importance of the Arctic *has* resonated with certain world leaders. Russia’s President Vladimir Putin stressed his desire for the Northern Sea Route to become an international transportation artery as viable as traditional southern trade lanes.¹⁸ Russia has aggressively pursued Arctic development and invested substantial funds in both icebreakers and in creating the infrastructure

required to support a sustained presence in the region. Russia currently operates a fleet of 34 icebreakers alone, while the rest of the world's navies operate a combined total of only 41 breakers.¹⁹ With its nationalized energy industry, the economic gains for Russia if a viable transit via the Northern Sea Route is developed are significant. The Northern Sea Route shaves an estimated 30 percent (or 14 days) off the transit time for a vessel shipping goods from Europe to Asia.²⁰ This savings equates to reduced fuel costs, greater cargo capacity, and less carbon emissions.

Opportunities

Associated with increases in commercial vessel traffic, high seas fishing, and Arctic tourism, the potential for a maritime disaster has also increased. However, this is a challenge that the international community has turned into an opportunity for partnership. The vast distance to reach a vessel in distress and the harsh environment of the Arctic make search and rescue (SAR) operations demanding. In May 2011, the Arctic Council signed a landmark agreement on international cooperation for aeronautical and maritime SAR response in the Arctic. The USCG was assigned responsibility for leading SAR planning and coordination efforts, with aeronautical and maritime operational responsibilities shared by all armed forces. The Department of State lauded this Arctic SAR agreement as the “first legally-binding agreement negotiated under the auspices of the Arctic Council.”²¹

By its very nature, the Arctic holds promise for future collaborative efforts regulating other economic activities and the harvesting of natural resources. Admiral Papp noted that the five Arctic Nations whose exclusive economic zones surround the high seas portion of the Arctic Ocean – the United States, Russia, Canada, Norway, and Denmark/Greenland – have all signed a non-binding agreement to prevent

unregulated fishing in the Arctic high seas. It is his goal to continue expanding negotiations with other non-Arctic Nations – specifically China, Japan, South Korea, Iceland, and the European Union – to create a binding agreement regulating commercial fishing in these seas.²²

The United States and other Arctic Nations have all expressed less nationalistic views towards Arctic development than Russia. However, there has been a subtle desire among all Arctic Nations to cooperate in the development of Arctic resources and mitigate any environmental impacts of increased human activity in this region.²³ This growing dialogue regarding Arctic governance has created a venue in which the world's leaders can address and resolve challenges, thus fully realizing opportunities for international partnership and political growth through economic development.

International Diplomacy

The potential for the Arctic to serve as a regional prototype for innovative and cooperative solutions to diplomatic, energy, economic, and military challenges is one of the greatest opportunities for international diplomacy. A desire for the United States to lead other nations towards peaceful resolutions to conflicts has long been a guiding tenant of American diplomatic efforts. The U.S. possesses the capacity to support its strategic goals for international order. However, it has not demonstrated the tenacity or perseverance to see its goals through to fruition. As a result, current criticism leveled at the United States that its foreign policy efforts lack clarity and conviction is not without merit. Unless leaders make deliberate decisions to engage in international diplomacy and rule making, the U.S. is at risk of perpetuating these errors in the Arctic.

The Arctic holds unique opportunities for the United States to enhance its leadership posture within the international community. However, any respect earned

from other nations is contingent upon how America responds to the Arctic's unique geopolitical challenges. These challenges result from the convergence of potential economic opportunities, environmental concerns, cultural impacts, and political tensions rising from claims of sovereignty over vast expanses of previously inaccessible territories. In a study on leadership strategies in the Arctic, the Center for a New American Security (CNAS) noted, "with global attention shifting north, the Arctic is a fertile landscape for targeting and leveraging U.S. international interests, particularly with Russia."²⁴

Geopolitical Realities of the Arctic

There are eight nations [Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the U.S] that can claim territorial waters north of the Arctic Circle, however only five – Canada, Norway, Denmark, Russian, and the U.S. – are considered "Arctic Nations."²⁵ Of these, Russia is the only one that is not a member of NATO.²⁶ Strategic and nationalist goals for the Arctic vary between these nations, as does the manner in which these nations have responded to perceived regional threats.

The primary concern of several countries revolves around control of territorial seas containing shipping lanes or access to shipping lanes through Arctic waters. The most notable are Canada and Russia. As a result of their vested economic and security concerns, both countries have tended towards unilateral approaches to resolve Arctic security issues.²⁷ In the previously mentioned 2014 vote to expand membership of the Arctic Council, both Canada and Russia opposed inclusion of additional countries.²⁸ However, these views on Arctic security, along with the fact they each have the largest borders in the region, comprise the extent of similarities regarding Russian and Canadian engagement.

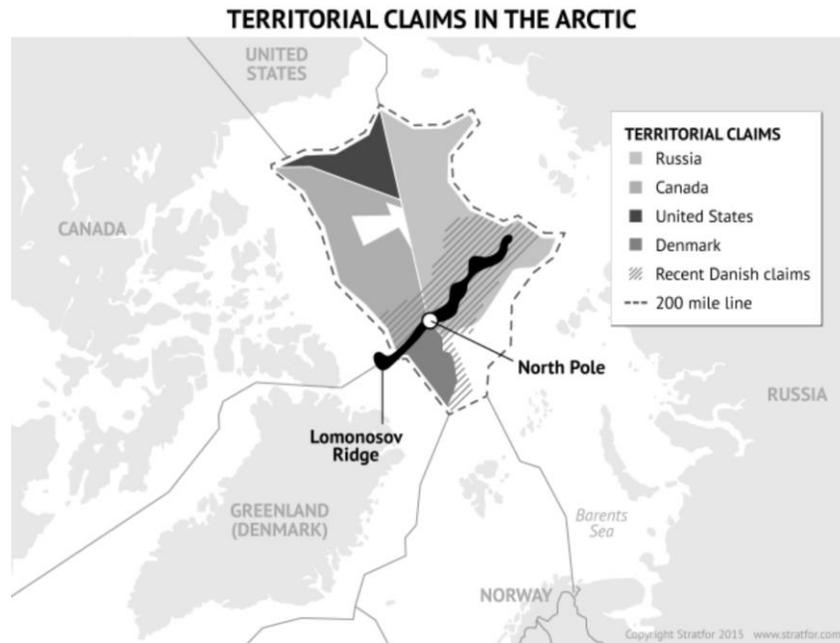


Figure 3. Disputed Claims in the Arctic²⁹

Russia is by far the most aggressive in pursuing its geopolitical agenda for the Arctic. For over 40 years, Russia and Norway have quarreled over exploration rights in the Barents Sea, a dispute finally resolved in 2010. In 2013, Russia and China entered into an agreement in which China gained an exploration license in the Arctic in exchange for purchasing Russian oil.³⁰ Russia's expressed desire for the North Sea Route to become viable for international shipping has led President Putin to construct an icebreaker fleet to support his strategic objectives. At the time of this writing, Russia is actively building an additional 13 icebreakers.³¹ Experts predict that Russia's buildup of infrastructure in the Arctic, its stated desire to pursue economic growth opportunities in the region, and its aggressive claims of sovereignty could serve as a geopolitical pivot, altering balance of power in the Arctic.³²

Meanwhile, China's primary interests in the Arctic are potential shipping efficiencies and economic profits from energy exploration gained only through increased

regional presence. Though not an Arctic Nation, China has entered into energy exploration license agreements and is keenly interested in securing the use of any northern waterway to dramatically reduce both shipping time and costs.³³

U.S. strategic security interests in the Arctic will be discussed in detail later. However, as a brief comparison to other Arctic Nations, the United States has only recently begun to demonstrate meaningful engagement in Arctic governance. As such, there are two political opportunities that the U.S. must leverage to increase its credibility in the Arctic and international community.

International Relations Opportunities

The first and most important action the United States must take is ratification of UNCLOS – the United Nations Convention on the Law of the Sea. This convention is the seminal document establishing the rules for use of the oceans, defining territorial seas and exclusive economic zones, and codifying a nation’s ability to claim minerals and natural resources.³⁴ Since 1958, there have been three Law of the Sea conferences, the last ending in 1982. At the time of this writing, 167 nations have approved or ratified UNCLOS. However, the United States Senate has yet to ratify it.³⁵

The reticence of U.S. elected officials to support this key piece of international legislation is a condemning reflection on their conviction and desire to lead the international community. The President cannot realize his objectives to strengthen international cooperation and enforce rules based international order until the United States becomes a signatory. Additionally, the U.S. will not have sufficient standing in the international court system to help resolve sovereignty issues in the Arctic or elsewhere. Ratifying UNCLOS would provide a tangible signal to the international community that

the U.S. is committed to following these established and accepted rules for resolving maritime disputes.

The second opportunity for the U.S. to increase its standing as a leader in the Arctic is through interaction with the Arctic Council. Until the U.S. Senate ratifies UNCLOS, the Arctic Council is America's primary venue for international cooperation and advancing regional governance. As Special Representative to the Arctic, Admiral Papp is also serving as Chairman of the Council from 2015 until 2017. This opportunity presents a two-year window during which he can lead U.S. efforts to promote our national priorities and influence policy in a region that holds vital national interests.

International relations pundits have questioned if the Arctic Council could transition from an international forum designed to respond to environmental issues to an International governing body able to respond to divergent political and economic views and create binding agreements or treaties. The Arctic Environmental Protection Strategy (AEPS) was founded in 1991 as an effort of eight nations with vested interests in the Arctic to provide a "forum for Arctic Cooperation." The AEPS transitioned into the Arctic Council in 1996 to respond to increasing international relations stress resulting from the impacts of climate change.³⁶ Arguably, the strength and weakness of the Arctic Council lies in its origins.

The Arctic Council has evolved into a forum willing to address a broad spectrum of issues. Recent important initiatives in which the U.S. has been intimately involved include the 2004 Arctic Climate Change Impact Assessment, 2008 Arctic Oil and Gas Assessment, and 2009 Arctic Marine Shipping Assessment.³⁷ Most notably, the Arctic Council has created two binding agreements among Arctic States: 1.) the previously

mentioned SAR coordination, and 2.) an agreement signed in 2013 defining responsibilities for oil pollution preparedness and response.³⁸

The fact that the Arctic Council has proven its ability to govern by passing binding multinational agreements and that nations from around the globe are seeking membership both indicate that it is a viable forum for expanding international rules-based structure for the Arctic. However, it is worth noting that the one area in which the Arctic Council does not have oversight is “military security,” so there are significant opportunities for governments to directly engage to negotiate and shape the future of the Arctic.³⁹

National Strategy

Although the U.S. is one of five Arctic Nations, it has not proactively engaged in Arctic governance nor embraced the strategic and economic importance of this region until recently. One of the first acknowledgements of America’s stake in the Arctic was by President Richard Nixon in 1971. His National Security Decision Memorandum (NSDM) 144 stated that

The United States will support the sound and rational development of the Arctic guided by the principle of minimizing any adverse effects to the environment; will promote mutually beneficial international cooperation in the Arctic; and will at the same time provide for the protection of essential security interests in the Arctic...⁴⁰

Additionally, NDSM-144 spoke to the need to improve U.S. capacity to operate in the Arctic, create an Arctic Policy Group, and increase scientific research.⁴¹ Yet, since 1971, the U.S. has significantly lagged behind other Arctic Nations pursuing objectives similar to those set forth by President Nixon. For 39 years, there was no advancement of strategic thought or policies to further define U.S. roles or intentions in the Arctic. Not until National Security Presidential Directive (NSPD) 66/Homeland Security Presidential

Directive (HSPD) 25 was signed by President Bush in 2009, did a sitting President again address the Arctic as a component of national security strategy.

In NSPD-66/HSPD-25 President Bush clearly stated that the U.S. is an “Arctic Nation, with varied and compelling interests in that region.” He identified six specific national security objectives for the Arctic revolving around themes of military strength and homeland security, maritime safety, economic interests, and climate change.⁴² Additionally, President Bush called upon the Senate to “act favorably on the U.S. accession to the United Nations Convention on the Law of the Sea...to protect U.S. interests.”⁴³ Each National Security Strategy since 2009 has repeatedly expressed a desire for the Senate to ratify UNCLOS.

Building upon the foundation of NSPD-66/HSPD-25, President Obama has produced the most comprehensive body of work pertaining to national security interests in the Arctic. In his 2010 National Security Strategy, the President affirmed the themes set forth by President Bush.⁴⁴ In 2013, the President published the first *National Strategy for the Arctic Region*.⁴⁵ This document expounded upon three lines of effort for the U.S. in the Arctic: 1) advance U.S. security interests; 2) pursue reasonable Arctic regional stewardship; and 3) strengthen international cooperation.⁴⁶

The following year he published *The Implementation Plan for the National Strategy for the Arctic Region*.⁴⁷ This plan expanded upon the previous strategy and assigned specific objectives, initial action items, metrics for measuring progress, and lead agency responsibilities.⁴⁸ In 2015, the President published the first *Report on the Implementation of the National Strategy for the Arctic Region*.⁴⁹ His report described the progress of implementing the lines of effort described in the *National Strategy for the*

*Arctic.*⁵⁰ For the first time, a President had created a specific National Strategy for the Arctic, an implementation plan, and a report monitoring the progress of his plan. The combination of these three documents signifies the growing importance to the Chief Executive of the Arctic region as well as his emphasis on formulating and implementing an appropriate strategy.

Challenges for U.S. Arctic Strategy

The greatest internal challenge facing the implementation of U.S. Arctic security strategy is the lack of resources capable of operating in this environment. Throughout our nation's history, Arctic initiatives have consistently been denied significant dedicated budgetary resources. The largest investment in the Arctic to date was the construction of two Coast Guard Icebreakers –*Polar Sea* and *Polar Star*. These vessels, commissioned in 1976 and 1977 respectively, remain the only two heavy icebreakers in America's national fleet. In NSPD-66/HSPD-25 President Bush did not request funding for any of his initiatives. Instead, he tasked the executive departments and agencies "to identify future budget, administrative, personnel, or legislative proposal requirements to implement the elements of this directive."⁵¹ The funding provisions of his strategic guidance were to be "implemented consistent with applicable law and authorities of agencies...and subject to the availability of appropriations, no funds were appropriate or authorized for the Arctic initiatives."⁵² As a result, they have tended to languish in an abyss of unfunded mandates and unsupported policy initiatives.

President Obama provided impetus from the executive branch for the advancement of Arctic initiatives when he called for the construction of heavy icebreakers during his 2015 Arctic Circle trip. The U.S. Coast Guard received a \$9.6 million supplemental appropriation in the 2016 fiscal year budget to continue design and

construction efforts for a heavy icebreaker. While this amount is well short of the estimated \$1 billion required to build one heavy breaker, such minimal funding does keep the program of record moving forward.⁵³

A second challenge facing the advancement of U.S. national security interests in the arctic is the complex oversight of governmental and independent agencies with equities in the Arctic. There are eight different government departments with 23 subordinate agencies that all exercise administrative or operational roles in development and execution of U.S. interests in the Arctic. Additionally, there are eight independent agencies providing oversight on Arctic matters.⁵⁴ Political consultants have criticized redundant and duplicative bureaucratic oversight, inefficient policy development, and the lack of a cohesive approach to exercising Arctic strategy. In 2013, the Center for Strategic and International Studies (CSIS) called for an overhaul of NSPD-66/HSPD-25. Identifying flaws in the directive, CSIS primarily highlighted a lack of direct agency tasking and overlapping authorities. Many of the strategic objectives set forth in that policy contain both a security and military function, as well as an economic component. Without clearly defining which agencies are in supported or supporting roles, previous administrations have created parallel lines of effort vice a whole of government solution.⁵⁵ The first steps to mitigate this flaw were undertaken by President Obama in publishing his *Implementation Plan for the National Arctic Strategy* and the subsequent report on the plan's progress. At this point, it is too soon to determine the success of these initiatives.

The Obama administration has made noteworthy progress in creating a vision for the Arctic by publishing his strategy, implementation plan, and report on the plan's

progress. However, the next steps must be to create a long-term economic development plan, streamline policy and strategy oversight, and build the infrastructure required to project U.S. interests the Arctic. These shortcomings of U.S. Arctic strategy and policy implementation frame the military's regional challenges and opportunities.

The Military in the Arctic

The U.S. Navy (USN) first addressed the Arctic and climate change in its *Navy Arctic Roadmap*. Published in 2009, it attempted to frame the challenges of future operations in the region. Building upon NSPD-66/HSPD-25 objectives, it assessed the full spectrum of potential tasks and requirements for the Arctic. Inter-governmental partnerships, capability requirement analysis, and non-government agency support were the dominant themes.⁵⁶ The USN published its *Climate Change Roadmap* in 2010 to complement the *Arctic Roadmap*. Heavily focused on the potential impacts of climate change on naval operations, this document also highlighted a need to invest in capabilities and infrastructure, public outreach, and further research.⁵⁷

Secretary Hagel published the Department of Defense's *Arctic Strategy* in November 2013 to complement President Obama's *National Strategy for the Arctic Region*. He defined the department's desired Arctic end-state as "a secure and stable region where U.S. national interests are safeguarded, the U.S. homeland is protected, and nations work cooperatively to address challenges."⁵⁸ He also established two supporting objectives: 1) promoting defense cooperation, ensuring security and supporting safety; and 2) preparing to respond to a wide range of contingencies. These objectives captured the Secretary's critical actions to achieve his desired end state for the Arctic.⁵⁹ Additional specific tactical actions were detailed for completion "in the coming decades" with no specific timelines for completion.⁶⁰

The DoD strategy identified four challenges that could hinder execution of its objectives: 1) uncertainty about future access to Arctic waters and anticipated commercial activity; 2) fiscal constraints that delay procurement of needed assets, infrastructure, and training, 3) political posturing and public support over competition for natural resources which escalate tension; and 4) overly aggressive military posturing that could aggravate tensions.⁶¹ Military services attempting to create forces that can operate in the Arctic must be prepared to deal head-on with those challenges.

Arguably, the most comprehensive approach to the Arctic is the *USCG Arctic Strategy*, published in 2013. It details the economic impacts of the changing Arctic environment, geo-strategic realities, agency roles and responsibilities, as well as governance from the international to tribal level.⁶² It establishes the unique capability of the USCG to “inform and sustain effective governance both domestically and internationally” in the Arctic.⁶³ However, in spite of its unique capabilities and authorities, the USCG cannot successfully operate in the Arctic without the support of the joint forces and succinct political guidance from U.S. leaders. Investing in the appropriate type and quantity of assets capable to support the joint force is another challenge military leaders must address.

Capability Requirements for the Arctic

The USN 2009 *Arctic Roadmap* began to address the types of assets that might be required to operate in the Arctic. Specifically, the report directed study into the use of remotely piloted sensor platforms to increase maritime domain awareness, the need for specialized communications to support command and control functions, and authorized research into military satellite communication capability for the region. Finally, the USN

took the responsibility for providing installations and facilities to support DoD and national policy.⁶⁴

In 2014, the Chief of Naval Operations released an updated *Arctic Roadmap 2014-2030*, noting that a mission shift from combat operations to supporting Coast Guard Search and Rescue, law enforcement, and disaster relief in the Arctic is a more likely use of USN assets in the future.⁶⁵ No mention of investing in specific capabilities for the Arctic was included in this newer version of the *Arctic Roadmap*. Instead, the USN affirmed its commitment to being ready to operate in this environment, support USCG operations as required, and ensure freedom of navigation and free flow of commerce.⁶⁶

A persistent and visible presence is the most effective way to ensure freedom of navigation and the free flow of commerce. The USN submarine fleet has maintained proficiency by conducting regular patrols under the polar ice cap.⁶⁷ However, the USCG maintains and operates the only heavy icebreakers in our national fleet. Numerous studies have been conducted to determine U.S. icebreaking requirements and recommendations for modernizing the fleet. An independently contracted consulting firm analyzed the missions and capabilities required by the Coast Guard to support future operations in the high-latitudes or Polar Regions.”⁶⁸ This “High Latitude Study” recommended three possible options for the future composition of a U.S. icebreaker fleet: 1) To support its current statutory missions, the Coast Guard would require three heavy and three medium icebreakers; 2) To support presence requirements set forth by the Navy’s Operating Concept, the Guard would require six heavy and four medium icebreakers; and 3) If the USCG implemented alternate homeporting options, it could

reduce the overall number of breakers to four heavy and two medium and fully support both USCG and DOD mission requirements.⁶⁹ Time is running out for a solution, as the DHS Office of the Inspector General observed, “The United States will have no heavy icebreaking capability beyond 2020 and no polar icebreaking capability of any kind by 2029.”⁷⁰

However, with the estimated cost for a single heavy icebreaker approaching one billion dollars, there is no resource capacity in the Coast Guard or Department of Homeland Security’s budget for an acquisition project of this magnitude. The estimated time to build a new heavy icebreaker is 10 years, which places the nation at risk of losing all icebreaking capacity.⁷¹ Additionally, experts are not confident that the United States has the organic capability to build a major vessel such as a *Polar* class icebreaker and still meet the existing traditional ship building requirements of the Navy and Coast Guard. Proposed alternative solutions such as building icebreakers in a foreign shipyard or leasing vessels from foreign nations have not received significant public or political support thus far.⁷²

Conclusion

The Arctic presents significant potential for economic gains through harvesting natural resources and savings to international shipping. It also presents unprecedented opportunities for advancing international relations. The emergence of the Arctic Council, the willingness of nations to seek peaceful resolution to Arctic conflicts, and the limited timeframe in which the U.S. will serve as Arctic Council chair have set the foundation for an unprecedented window of opportunity for international cooperation.

Through the analysis of U.S. response to the four greatest areas of strategic interest: economic expansion, international diplomacy, national security strategy, and

the projection of military power, it is apparent the U.S. currently does not have the physical or political resources to support the President's Arctic objectives. Without significant advancement of strategy, policy, and increased resources, the U.S. is at risk of losing political and diplomatic prominence. There are specific actions the U.S. government must undertake and accomplish to remain a leader of the international community in the Arctic.

One of the enduring U.S. national security interests is preserving a rules based international community.⁷³ The failure to ratify UNCLOS places the U.S. at a distinct disadvantage when negotiating issues of freedom of navigation and sovereignty. UNCLOS is the internationally accepted convention for dispute resolution. Currently, it is the vehicle for dispute resolution in the South China Sea. The failure of elected officials to make the U.S. a signatory nation only weakens negotiating power by reflecting a gap between our stated national strategic goals and political will.

U.S. actions in the Arctic much reflect a whole of government approach. However, in order for this to happen effectively, bureaucratic oversight must be streamlined. Duplicative policy development, vague public messaging, and inconsistent budgetary support are effectively crippling Arctic initiatives. President Obama's noteworthy efforts in creating a national strategic vision are the first step to correcting this issue. The next step must be clearly defining which agencies are in a supported or supporting role when shaping Arctic policy.

Related to the bureaucratic challenges is the lack of clear economic goals and rules governing economic expansion. Both environmental, economic, and political stakeholders must inform these policy decisions. This presents a monumental problem

set to overcome. However, the political shoal waters could more easily be navigated if bureaucratic oversight was optimized. Without succinctly defining the extent of national interests for this region, military and industry cannot identify and allocate the appropriate capabilities and resources.

The U.S. must invest in basic resources to ensure it is able to operate in the Arctic. The harsh environment demands specially designed and constructed vehicles, aircraft, and ships to operate in the Arctic. The long lead-time required to build icebreakers requires leaders to project a decade to initiate construction in order to meet anticipated commitments. National funding for heavy icebreakers and shore infrastructure must be consistent and cannot wait. Determining the optimal number of icebreakers and shore facilities to support expected mission sets can best be accomplished when informed by clearly defined national strategic guidance and objectives.

Civil and military leaders must make hard decisions in this constrained budget environment. Only by leveraging the benefits of a whole of government approach, will the DoD, DHS, and other partner agencies be appropriately postured to achieve U.S. strategic objectives in the Arctic.

Endnotes

¹ Barak H. Obama, *2015 National Security Strategy* (Washington, DC: The White House, May 2010), 50.

² ADM Robert J. Papp, *United States Coast Guard Arctic Strategy* (Washington, DC: U.S. Coast Guard, May 2013), 45.

³ Ronald O'Rourke, *Changes in the Arctic: Background and Issues for Congress* (Washington, DC: U.S. Library of Congress, Congressional Research Service, August 4, 2014), 1.

⁴ National Snow and Ice Data Center Home Page, <http://nsidc.org/arcticseaicenews/files/2016/01/Figure3.png> (accessed January 17, 2015).

⁵ Dr. Elizabeth Rosenberg, Dr. David Titley, and Alexander Wiker, *Arctic 2015 and Beyond A Strategy for U.S. Leadership in the High North* (Washington, DC: Center for a New American Security, December 2014), 2, http://www.cnas.org/sites/default/files/publications-pdf/CNAS_ArcticHighNorth_policybrief_RosenbergTitleyWiker.pdf (accessed April 19, 2016).

⁶ Papp, *United States Coast Guard Arctic Strategy*, 9.

⁷ Robert J. Papp, *Statement of Admiral Robert J. Papp*, Special Representative for the Arctic, U.S. Department of State, Before the U.S. House of Representatives Committee on Foreign Affairs, Subcommittees on Europe, Eurasia, and Emerging Threats, and Western Hemisphere, November 17, 2015, 8.

⁸ Papp, *United States Coast Guard Arctic Strategy*, 3.

⁹ Maritime Connector, "Bulk Carrier," <http://maritime-connector.com/bulk-carrier/> (accessed March 12, 2016).

¹⁰ Rosenberg, Titley, and Wiker, *Arctic 2015 and Beyond A Strategy for U.S. Leadership in the High North*, 2.

¹¹ Ibid.

¹² Council on Foreign Relations, "Emerging Arctic," <http://www.cfr.org/arctic/emerging-arctic/p32620> (accessed January 3, 2016).

¹³ Heather A. Conley, *The New Foreign Policy Frontier, U.S. Interests in the Arctic* (Washington, DC: Center for Strategic and International Studies, March 2013), 19.

¹⁴ "Searching for Leads in the Opening Arctic," *Foreign Policy Online*, September 14, 2015, <http://foreignpolicy.com/2015/09/14/searching-for-leads-in-the-opening-arctic/> (accessed December 22, 2015)

¹⁵ NASDAQ, Crude Oil," <http://www.nasdaq.com/markets/crude-oil.aspx?timeframe=10y> (accessed March 12, 2016).

¹⁶ Jad Mouawad, "Oil Survey Says Arctic Has Riches," *New York Times Online*, July 24, 2008 <http://www.nytimes.com/2008/07/24/business/24arctic.html>, C-1.

¹⁷ Council on Foreign Relations, "Emerging Arctic."

¹⁸ Ibid.

¹⁹ Ronald O'Rourke, *Coast Guard Polar Icebreaker Modernization: Background and Issues for Congress* (Washington, DC: U.S. Library of Congress, Congressional Research Service, July 24, 2013), 25.

²⁰ Council on Foreign Relations, "Emerging Arctic."

²¹ O'Rourke, *Changes in the Arctic*, 46-49.

²² Ibid., 9-10.

²³ Papp, *Statement of Admiral Robert J. Papp*, 1.

²⁴ Rosenberg, Titley, and Wiker, *Arctic 2015 and Beyond A Strategy for U.S. Leadership in the High North*, 3.

²⁵ David P. Auerswald, "Geopolitical Icebergs," *Proceedings* 141, no. 12 (Annapolis, MD: U.S. Naval Institute Press, December 2015), 20.

²⁶ O'Rourke, *Changes in the Arctic*, 50.

²⁷ Auerswald, "Geopolitical Icebergs," 20.

²⁸ O'Rourke, *Changes in the Arctic*, 53.

²⁹ "Russia's Plans for Arctic Supremacy," *STRATFOR Global Intelligence*, January 16, 2015, <https://www.stratfor.com/analysis/russias-plans-arctic-supremacy> (accessed December 22, 2015)

³⁰ O'Rourke, *Changes in the Arctic*, 54.

³¹ O'Rourke, *Coast Guard Polar Icebreaker Modernization*, 25.

³² "Russia's Plans for Arctic Supremacy."

³³ O'Rourke, *Changes in the Arctic*, 55.

³⁴ Continental Shelf Programme Home Page, <http://www.continentalshelf.org/about/1143.aspx> (accessed September 19, 2015)

³⁵ United Nations Oceans & Law of the Sea, "Chronological Lists of Ratifications of, Accessions and Successions to the Convention and the Related Agreements as at 02 January 2015," March 15, 2016, http://www.un.org/Depts/los/reference_files/chronological_lists_of_ratifications.htm (accessed September 19, 2015)

³⁶ Timo Koivurova, "Limits and Possibilities of the Arctic Council in a Rapidly Changing Scene of Arctic Governance," *The Polar Record* 46, no. 2 (April 2010): 146-148.

³⁷ Papp, *Statement of Admiral Robert J. Papp*, 3.

³⁸ Ibid., 4.

³⁹ Ibid., 3.

⁴⁰ Richard M. Nixon, *National Security Strategy Decision Memorandum-144* (Washington, DC: The White House, December 1971), 1.

⁴¹ Nixon, *National Security Strategy Decision Memorandum-144*, 2.

⁴² George W. Bush, *National Security Presidential Directive-66* (Washington, DC: The White House, January 2009), 3-4.

⁴³ G.W. Bush, *National Security Presidential Directive-66*, 4.

⁴⁴ Obama, *2015 National Security Strategy*, 50.

⁴⁵ Barak H. Obama, *National Strategy for the Arctic Region* (Washington, DC: The White House, May 2013).

⁴⁶ *Ibid.*, 6-10.

⁴⁷ Barak H. Obama, *Implementation Plan for the National Strategy for the Arctic Region* (Washington, DC: The White House, January 2014).

⁴⁸ *Ibid.*, 1.

⁴⁹ Barak H. Obama, *National Strategy for the Arctic Region – Implementation Report* (Washington, DC: The White House, January 2015).

⁵⁰ *Ibid.*, 2.

⁵¹ G.W. Bush, *National Security Presidential Directive-66*, 10.

⁵² *Ibid.*

⁵³ O'Rourke, *Changes in the Arctic*, 42

⁵⁴ Conley, *The New Foreign Policy Frontier, U.S. Interests in the Arctic*, v.

⁵⁵ *Ibid.*, 21-22.

⁵⁶ U.S. Department of the Navy, *Navy Arctic Roadmap* (Washington, DC: U.S. Department of the Navy, November 10, 2009), 16-18.

⁵⁷ U.S. Department of the Navy, *Navy Climate Change Roadmap* (Washington, DC: U.S. Department of the Navy, May 21, 2010), 10-13.

⁵⁸ Charles T. Hagel, *Arctic Strategy Department of Defense* (Washington, DC: U.S. Department of Defense, November 2013), 2.

⁵⁹ *Ibid.*, 5-6.

⁶⁰ Hagel, *Arctic Strategy Department of Defense*, 7-13.

⁶¹ *Ibid.*, 12-13.

⁶² Papp, *United States Coast Guard Arctic Strategy*, 11-20.

⁶³ *Ibid.*, 27.

⁶⁴ U.S. Department of the Navy, *Navy Arctic Roadmap*, 13-15.

⁶⁵ Admiral Jonathan W. Greenert, *U.S. Navy Arctic Roadmap 2014-2030* (Washington, DC: U.S. Department of the Navy, February, 2014), 27.

⁶⁶ *Ibid.*, 17.

⁶⁷ Conley, *The New Foreign Policy Frontier, U.S. Interests in the Arctic*, 7.

⁶⁸ O'Rourke, *Coast Guard Polar Icebreaker Modernization*, 8.

⁶⁹ *Ibid.*, 10.

⁷⁰ *Ibid.*, 11-12.

⁷¹ *Ibid.*, 43.

⁷² Lawson Brigham, "More Assets for the Arctic," *Proceedings* 141, no. 12 (Annapolis, MD: U.S. Naval Institute Press, December 2015): 33.

⁷³ Obama, *2015 National Security Strategy*, 2.