ACKNOWLEDGMENTS

First and foremost, I would like to thank my mentor, Dr. Joshua First, for his guidance, thoughts, and timeliness. He helped foster my creativity and guide my writing process. I would also like to thank for my readers, Dr. William Schenck and Mr. Wesley Yates, for their feedback and assistance. I also want to thank my friends and family for their unending support. They were always there with a listening ear and welcomed words of advice. All these wonderful people helped turn the stressful process into an enjoyable learning experience.
Abstract

The purpose of this project was to show how climate change is transforming geopolitics in the Arctic by creating new economic opportunities leading to the increased militarization of Arctic nations. This thesis triangulates the current Arctic policy of member nations, economic resources and opportunities in the region, and the increased military presence in the region to demonstrate how a potential conflict may occur in the region if the current trend continues. This thesis aims to show how resource greed over non-contiguous territory and an increased military presence escalated tensions in the Arctic.
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Chapter 1: Introduction

The Arctic has played a substantial role in international politics. During the Cold War, the Arctic was a significant source of tension between the United States and Russia. In the post Cold War era, disputes over the Arctic subsided and steps were taken to create peace and cooperation in the region. In recent years, climate change has threatened to disrupt the current cooperative manner in the Arctic amongst the Arctic nations. The Arctic nations are Russia, Canada, the United States, Norway, Sweden, Iceland, Denmark, and Finland.

Below the ice, the Arctic contains vast reserves of oil and natural gas. The melting ice allows for easier access to these natural resources as well as shipping routes that were formerly impassable due to year round ice coverage. The Arctic region contains many overlapping Exclusive Economic Zones from the surrounding countries. Now that the ice is melting, countries are trying to lay claims over what they propose to be their territory in order to gain unobstructed access to the resources and/or shipping routes.

As a result of growing tensions over economic opportunities, the Arctic countries are beginning to revamp and increase their Arctic military capabilities and presence. This thesis aims to analyze how resource greed over non-contiguous territories and an increased military presence may lead to a potential conflict in the Arctic.

For this thesis, it is important to note that the term conflict is fluid on the conflict continuum. It is likely that any conflict in the Arctic will not escalate past an unarmed standoff or unarmed mid-level dispute. The term conflict is fluid because where it lands
on the continuum is dependent on future decisions made, or not made, by the involved governments.

**Climate Change**

Climate change is affecting the Arctic almost twice as fast as any other region on the planet. Climate change is defined by NASA as “a change in the typical or average weather of a region or city.”\(^1\) Over the last century, Earth’s average surface temperature has risen nearly 1.62 degrees Fahrenheit.\(^2\) Carbon dioxide levels are at the highest they have been in 650,000 years and while it is not atypical for the Earth to experience fluctuations in carbon dioxide levels, the rate at which they are increasing is what is of concern. Much of the increase in the carbon dioxide levels has been attributed to human-related causes such as the release of greenhouse gases.\(^3\) As a result, Earth’s temperature is predicted to continue to rise over the next hundred years anywhere from 0.5 \(^\circ\) to 8.6 \(^\circ\) Fahrenheit.\(^4\) The warming of the earth, referred to as global warming, is problematic because even a slight shift in Earth’s temperature can cause catastrophic changes in climate and weather.

In the Arctic, sea ice reaches its minimum coverage every year during the month of September. According to NASA, sea ice in the Arctic is declining by 12.8% per

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3 Ibid.
decade, according to the calculated average between 1989-2010. Figure 1 shows a NASA graph of the annual sea ice minimum in the Arctic. NASA projects the Arctic will be ice free during the summer months by 2050.

Figure 1. Average September Extent of Sea Ice (Graph by NASA/NSIDC)

For this thesis, it is important to understand what climate change is and how it is affecting the Arctic. This thesis analyzes how climate change is transforming the geographic landscape of the Arctic Circle leading to the increased exposure of natural resources, such as oil and natural gas, that can potentially be exploited for economic benefit. As the potential for economic exploitation increases and the natural boundaries

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provided by the ice cap melts, Arctic nations are expanding and modernizing their military presence, capabilities, and equipment, such as weapons, aircraft, and vehicles, for use in Arctic conditions.

An entire region is melting into an ocean and the natural boundaries it once provided are melting with it. The eight countries that border or have territory in the Arctic are left to deal with the newfound access to resources and a lack of border security. As a result, tensions in the region are rising. While the current trend is to continue cooperation amongst the nations, Canada, Russia, and the United States, along with the five other nations, have started to implement their plans to protect their borders and economic zones. It is important to note that the ongoing situation in the Arctic is the first time in modern history that an entire land mass could potentially disappear. The goal of this thesis is not to predict what will happen in the future but to assess the likelihood of Arctic countries to continue cooperation or engage in conflict by analyzing the current stated goals of said countries and their actual actions. I hypothesize that, based on the current situation, cooperation in the Arctic will begin to deteriorate due to the growing potential for resource exploitation and an open ocean unless efforts are made to create a stronger security community in the Arctic. Before these competing ideas can be analyzed, it is important to create an understanding of the existing literature on the subject.

**Existing Scholarship and Literature Review**

Existing scholarship explores the increased interest in potential economic expansion in the Arctic as well as Arctic countries expanding and modernizing their Arctic military capabilities. It also analyzes the argument of continued cooperation verses future conflict. Much scholarship exists on the Arctic region and the relationships
between Arctic countries. Most of the existing scholarship on the Arctic explores the environmental impact of climate change, military and security capabilities of Arctic states, and future resource exploitation. There is also extensive literature on the causal relationship of resources on human conflict. However, while the empirical literature on the Arctic is growing, there is comparatively little scholarship on the cooperation and conflict argument in the Arctic. The scholarship that does exist typically compares two countries and their Arctic policies as well as their increased military expansion. Much of the existing scholarship also differs in its concluding views over whether the Arctic is headed towards continued cooperation or future conflict. This thesis will begin to fill this gap by expanding on, analyzing, and combining the existing literature on the relationship of cooperation and conflict between Russian, Canada, and the United States, as well as the Arctic countries and NATO, in one paper.

In the book, *The European Union and the Arctic*, multiple scholars contribute to create an in-depth look at how the European Union can shape the future Arctic. While this does not directly align with my thesis, two of the chapters are important for creating a base of understanding in my thesis. In Chapter seven, “Russian Arctic Policy, Petroleum Resources Development and the EU: Cooperation or Coming Confrontation?,” Tina Hunter explains how the high quantity of Arctic resources is “giving rise to a perception of intense competition for petroleum resources in the Arctic.” She details the competing views in the literature between Russia continuing cooperation and Russia building up its military as a sign of aggression. She determines by comparing policy and

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action that “there is commonality of Arctic policy interests between Russia and the EU, which appear to be ushering in an era of cooperation, not conflict and the threat of war.”

For this thesis, this chapter creates a solid base of research on Russian Arctic policy and military build up in relation to how this affects Russia’s relations with other Arctic states.

In Chapter six, “Searching for Common Ground in Evolving Canadian and EU Arctic Strategies”, P. Whitney Lackenbauer and Suzanne Lalonde explore the impressions of an aggressive Canadian Arctic policy. They state that “Canada’s propensity to project its domestic northern strategy, which is deeply embedded in North American Arctic priorities, into the circumpolar sphere should come as no surprise owing to its success in deeply institutionalizing its concept of the Arctic in current instruments of Arctic governance.” Lackenbauer and Lalonde provide an important basis for Canada’s Arctic policy and its perception to Arctic states.

Klaus Dodds and Mark Nuttall’s book The Scramble for the Poles: Geopolitics of the Arctic and Antarctic, provides one of the more prominent bases of understanding the dichotomy of conflict and cooperation in the Arctic. They discuss how “a kind of extractive colonialism lives on” in the Arctic and is being accelerated by the growing accessibility to resources. They also say that even in situations with prior legal cooperation, the idea of a “land grab” creates political tension. They argue that Arctic

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9 Ibid, 199.
11 Ibid, 122.
states are using scientific exploration and the quest for knowledge to enable them to shape “sovereign power and national projects designed to bolster sovereignty and security”.\textsuperscript{13} Klaus and Dodds note that unlike in the Antarctic, states in Arctic opted to maintain sovereignty under their UNCLOS rights. They conclude that the situation may echo the past where the Arctic was divided into “the Soviet Arctic and the Western Arctic.”\textsuperscript{14}

In his piece, Breaking the Ice: Potential US-Russian Maritime Conflict in the Arctic”, Mate Aerandir details the potential for conflict in the Arctic by looking at the United States and Russia. He includes sections on how resource greed and competing territorial claims increase the chance of a conflict in the Arctic. His work provided excellent information and background into the complicated territorial disputes in the Arctic.

**Purpose and Methodology**

My review of the existing literature provides of foundation of the contending conclusions and analyses about cooperation in the Arctic. Besides differing conclusions in the existing literature, the stated policies of the Arctic countries contend with their recent plans and implementations to strengthen and modernize their Arctic military capabilities. This is the first time in modern history that an entire region of the planet may potentially disappear. The current trend towards cooperation is based off the existence of Arctic sea ice and the natural boundaries it provides. This thesis does not aim to predict

\textsuperscript{13} Ibid, 22.
\textsuperscript{14} Ibid, 107.
whether a major armed conflict will ensue in the Arctic region since the ever-changing nature of the Arctic renders predictions impractical. Instead, this thesis aims to analyze the current situation and assess whether the trend towards cooperation is likely to continue. As stated earlier, I hypothesize that, based on the current situation, cooperation will deteriorate due to the lack of a unified security community in the region.

In order to show how cooperation will deteriorate, I will use the triangulation of three methods. I examine and analyze the official Arctic policies of Canada, Russia, and the United States along with NATO. I then analyze the potential for resource exploitation and the economic benefits of an open ocean in the Arctic. Then, I examine how Canada, Russia, and the United States are modernizing and strengthening their military capabilities and equipment for use in the Arctic. By analyzing these three components, in addition to the existing literature, it becomes more apparent that even though cooperation is an important aspect of active Arctic policy, the actions from the Arctic states do not align with the trend of cooperation. Furthermore, the lack of a unified security community in the Arctic coupled with each nation’s emphasis on sovereignty hints towards rising tensions amongst the nations.

By triangulating these components with the potential for economic benefit, it becomes apparent that access to defined Exclusive Economic Zones is a major factor for maintaining sovereignty in the Arctic. Due to ongoing boundary disputes and formal requests for extensions of these zones, the Arctic nations are preparing for resource exploitation and control of shipping routes in their respective territories. The military build up of the Arctic nations is in part to increase infrastructure to uphold potential economic endeavors. In the past year, however, Arctic military exercises and a
heightened military presence point to the expansion of Arctic capabilities to practice for Arctic conflicts.

In this thesis, I will also include case studies. The first case study shows how resource greed over non-contiguous territories can lead to mid-level disputes as seen in the South China Sea. The following two case studies show how cooperation in the Arctic has already started to deteriorate by looking at specific situations. The purpose of these case studies is to show how this is occurring on a micro level compared to looking at the Arctic as a generalized region.

By using triangulation and including case studies, this thesis analyzes the likelihood of continued cooperation through cross-examination of multiple components as well as on a macro and micro level.
Chapter 2: Treaties, Doctrines, and Policies in the Arctic

Climate change is affecting the Arctic faster than any other region of the world. The rapidly melting ice is creating new challenges and raising new questions over how to handle the future changes. Eight countries hold claims in the Arctic region. The focus of this thesis is how three of these countries, Russia, Canada, and the United States, are dealing with a changing geographic landscape in the Arctic and the new economic opportunities and military tensions that are arising as a result. In order to understand the complex environment, both physically and politically, that is the Arctic it is important to know the current political landscape these countries have created in the region. The purpose of this chapter is to explain and examine the policy goals of Russia, Canada, and the United States and how those policies affect security initiatives in the Arctic.

The Arctic Council

In 1996, the eight countries with territorial claims in the Arctic Circle founded the Arctic Council under the Ottawa Declaration. The Arctic Council is the only joint action between all Arctic nations. The Arctic Council is comprised of the eight member countries, six permanent participants, and 13 observers. The eight member countries are Denmark, Iceland, Norway, Sweden, Finland, Canada, Russia and the United States.15 The permanent participants are indigenous peoples’ organizations comprised of indigenous groups who live in the Arctic and the 13 observers are non-territory holding

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countries who were granted observer status.\textsuperscript{16} The work of the Council is carried out by six working groups with the overall goal of is to facilitate “cooperation, coordination and interaction among the Arctic States, Arctic indigenous communities and other Arctic inhabitants on common Arctic issues.”\textsuperscript{17} The main issues the Council deals with are environmental concerns, conservation, scientific research, and sustainable development.\textsuperscript{18} The mandate of the council cannot implement or enforce anything as that is the responsibility of each Arctic state. The mandate also excludes military and security issues.\textsuperscript{19} There is no joint military or security doctrine between the eight Arctic nations.

**Russia Arctic Policy**

Russia has an extensive history of policy in the Arctic dating back to the Soviet Union. For the purposes of this thesis, I will only focus on policies released after Putin’s rise to presidency. In 2001, Russia released the “Basics of the Russian Federation State Policy in the Arctic.” The document declares that all Arctic related tasks should be carried out with the defense and security of the region to the utmost degree.\textsuperscript{20} Seven years later, in 2008, Russia replaced the 2001 document with the “Foundations of the State Policy of the Russian Federation in the Arctic for the Period until 2020 and Beyond.” It is the most relevant and important Arctic strategy for Russia to date. It serves as an agenda for Russia’s Arctic goals, plans the implementation of state policy, and calls for a build

\textsuperscript{19} About Us, Arctic Council.
up and continued modernization of the military to protect its national security and north border.\footnote{21} The main difference in the 2008 policy from the 2001 version is its emphasis on cooperation. It emphasizes the importance of maintaining the Arctic as a region of cooperation. It also states that Arctic is simultaneously a “sphere of military security” and a “zone of cooperation.”\footnote{22} Russia further elaborated on the 2008 document with the “Development Strategy of the Russian Arctic and the Provision of National Security for the Period until 2020.” It lists the additional priority of establishing an integrated security system. It also further details plans to increase army, navy, and air force presence in the region as well as modernizing their military equipment and weapons.\footnote{23}

In 2014, Russian President Vladimir Putin signed into the new Military Doctrine. A military doctrine details a nation’s goals when it comes to the defense of nation and are typically made public. This doctrine updated the countries 2010 military doctrine. Two of the biggest differences between the 2010 and the 2014 version are how Russia talks about NATO and the inclusion of the Arctic. In terms of NATO, the 2014 doctrine differs from the earlier version by describing NATO’s actions as ongoing threats and dangers as opposed to potential ventures.\footnote{24} It is important to note that 2014 is the same year NATO suspended cooperation with Russia due to its involvement in Ukraine. Russia released its

updated military doctrine after the fall out with NATO. The other main difference in the 2014 doctrine is the inclusion of the Arctic. The Doctrine urges the importance of protecting interests in the area, even during peacetime.\(^\text{25}\) Russia’s current policies in the Arctic urge for the protection of national interests, lay plans for the continued build up and modernization of their military capabilities in the Arctic, and state the interests of maintaining peace in the region.

**Canada Arctic Policy**

In 2009, Canada launched its “Northern Strategy” plan. They state that the ultimate vision for the Arctic is a “stable, rules-based region, with clearly defined boundaries, dynamic economic growth and trade, vibrant Northern communities, and healthy and productive ecosystems.”\(^\text{26}\) The strategy lists four pillars that are considered to be the most important to Canada. The four pillars are exercising sovereignty, promoting economic and social development, protecting the environment, and empowering the peoples of the North. Canada makes clear that the most important pillar is their ability to continue exercising sovereignty in the region. The strategy details that in order to exercise their sovereignty, Canada will continue to practice responsible stewardship and good governance, solve boundary issues, and increase their military capabilities to better

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patrol their lands and waters in the Arctic as well as to keep pace with the rest of the world.\textsuperscript{27}

Canada aims to resolve their boundary dispute with Denmark in accordance with international law. They also want to “secure international recognition for the full extent of our extended continental shelf wherein we can exercise our sovereign rights over the resources of the seabed and subsoil.” In the following chapter, I will discuss the current territorial disputes and overlapping Exclusive Economic Zones. Canada also details the plans for their “Canada First Defence Strategy.” This defence plan calls for the delivery of a new icebreaker, expands the size of Canadian Rangers, and increases Canada’s military presence in the Arctic. The full extent of Canada’s Arctic military capabilities will be discussed in Chapter 3.

**United States Arctic Policy**

The United States has several Arctic policy initiatives from different facets of the government. In 2009, “National Security Directive 66 (NSPD-66)” was published. It states the policy of the United States is to meet national security and homeland security needs, protect the Arctic environment, and sustainable development among several other things.\textsuperscript{28} In 2013, Obama released the “National Strategy for the Arctic Region.” It advances US security interests, pursues responsible stewardship and strengthens

\textsuperscript{27}Ibid.
cooperation amongst member states. The last policy initiative of the US government is the Department of Defense’s (DoD) Report to “Congress on Strategy to Protect United States National Security Interests in the Arctic Region” as of 2016. It takes a more militaristic approach as it is coming from a defense agency. Its main goals are enhancing US capabilities to defend Alaska, strengthen deference and alliances, preserve freedom of the seas, and evolve DoD infrastructure in the Arctic.

According the State Departments Arctic website, the main goals of all Arctic policy are as follows: meet national security needs, protect the environment, strengthen cooperation among the Arctic nations, involve indigenous communities, and enhance scientific research in the region.

NATO Arctic Policy

In this thesis, it is important to understand the role NATO plays in the Arctic. This thesis specifically looks at the United States, Russia, Canada as they are three of the biggest players globally and in the Arctic. These countries are also involved in the most territorial disputes compared to the rest of the Arctic nations. However, NATO plays a large role in the event of a possible conflict in the Arctic. Of the eight Arctic nations, five are NATO members. The six members are Canada, Denmark, Iceland, Norway, and the

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United States. Sweden and Finland are not NATO members but considered as allied
nations. Russia is the only country not affiliated with NATO.

If a conflict were to erupt in the Arctic, NATO members would likely respond in
support of the NATO allied nation. In the report, NATO cited concerns over the impact
of climate change on Arctic security. NATO stated that “there is a desire among Arctic
countries to cooperate closely to address common challenges and solve territorial
disputes by diplomatic means.”32 However, they also noted concerns that outside NATO-
Russia relations could spill over into the Arctic. They stressed that while members have
conflicting views over Russia’s military intentions in the region that all the members
agreed that Arctic security is a priority. The report ends with a plan to “continue and
strengthen Allied exercises on the Alliance’s northern flank.”33

32 Gerald E Connolly, “NATO and Security in the Arctic ,” rep., NATO and Security in
the Arctic (NATO, 2017), pp. 1-11.
33 Ibid.
Chapter 3: Competing Claims and Territorial Disputes

When discussing the Arctic, it is important to understand the complex territorial claims and disputes in the region. Currently, the United Nations on the Law of the Sea (UNCLOS) serves as the primary international law related to the rights and responsibilities of nations with respect to their use of oceans. By following UNCLOS procedures, countries can claim territories that are recognized under the international treaty. According to the United Nations Convention on the Law of the Sea (UNCLOS), “Coastal States have sovereign rights in a 200-nautical mile exclusive economic zone (EEZ) with respect to natural resources and certain economic activities, and exercise jurisdiction over marine science research and environmental protection.”34 In other words, a country has sole access to the natural resources within their EEZ. Figure 2 shows the current EEZs of countries with claims in the Arctic. Since many of the EEZs overlapped, several countries mutually agreed upon offshore boundaries. As you can also see in Figure 2, the region beyond the 200-nautical mile limit is currently under competing claims from multiple countries. In accordance with the UN, countries had 10 years after ratifying UNCLOS to make a claim for an extended continental shelf.35

35 Ibid.
claims are to be submitted to the UN Commission on the Limits of the Continental Shelf where they will be validated by an independent committee. Extended continental shelves (ECS) can extend beyond the 200-nautical mile marker. An ECS does not extend a country’s EEZ but it does have distinct sovereign rights over their ECS including exploration and exploitation of the seabed and subsoil.

Figure 2. Overlapping EEZs in the Arctic

The United States is yet to ratify UNCLOS meaning that they are unable to make a claim for an extended continental shelf. They do accept UNCLOS as international

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law. Russia was the first country to ratify UNCLOS in 1997. This gave them until 2007 to make an ECS claim. In 2001, Russia submitted an official submission to UN Commission on the Limits of the Continental Shelf through UNCLOS. It proposed to establish the outer limits of Russia’s shelf beyond the limits of the EEZ but within the Arctic sector. The Commission neither accepted nor denied Russia’s claim and recommended additional research. In 2007, Russia funded an expedition known as Arktika 2007 in order to collect more information for their extended shelf claim. By 2015, Russia officially filed its additional data to the UN. Russia is claiming 1.2 million square kilometers which extends more than 650 kilometers from the shore. The UN began working on this claim in August 2016.

Canada ratified UNCLOS in November 2003. That same year, they launched an exploration to determine the outer limits of its continental shelf in the Arctic and Atlantic Ocean. On December 6th, 2013, Canada submitted a claim to the Commission. This claim provided information about its extended shelf and fell within the 10 year limit of becoming a party of UNCLOS. The 2013 submission was only a partial submission and Canada is currently preparing the remaining part of its study. The area Canada is

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40 Ibid
examining begins 200 nautical miles offshore from its Arctic shoreline. The area extends from Canada Basin to the Lomonosov Ridge north of Ellesmere Island and Greenland, and beyond the North Pole. The region covers nearly 750,000 square kilometers.

According to Mate Aerandir, in his work “Breaking the Ice: Potential US-Russian Maritime Conflict in the Arctic,” there are five heavily disputed areas in the Arctic. These five areas include the Lomonosov Ridge, the Bering Strait, the Beaufort Sea, the Northwest Passage, and Hans Island. Aerandir states that each “has the potential to lead to some level of conflict if not resolved peacefully through existing mechanisms or otherwise binding agreements.”

The Lomonosov Ridge is disputed by Russia, Canada, and Denmark, the Bering Strait by Russia and the United States, the Beaufort Sea by Canada and the US, the Northwest Passage by Canada and the US, and Hans Island by Canada and Denmark. This thesis will analyze three of the five disputed areas. This thesis will not analyze the Hans Island dispute between Canada and Denmark because the two countries are currently working together to peacefully resolve the dispute. Russia, Canada, and the United States are involved in all of the five highly contested territorial disputes. It is important to understand the complex territorial claims and disputes in the Arctic because it signifies specific areas where a potential dispute may occur. As I will detail in

44 Ibid.
46 Ibid, 22.
the following chapters, resource exploitation and control over shipping lanes is a factor in the territorial disputes. The economic benefits stood to gain from controlling these territories is a major component in the respective countries’ decision to try to claim sovereignty.

**Economic Opportunities**

*Oil and Natural Gas*

The receding ice in the Arctic presents nations with a plethora of economic opportunities. Arctic nations are under increasing pressure to claim and solve territorial disputes that were formally frozen or insignificant. The current situation creates uncertainty over legal territories for businesses and companies to begin developing economic ventures. Whether the countries decide to utilize the resources available to them or claim shipping routes to turn a profit, they first must receive approval over their territorial claims. This section will analyze the economic opportunities present in the Arctic and those present in the disputed territories.

The Arctic Circle comprises approximately 6 percent of Earth’s surface or the equivalent of 21 million km². Around 8 million km² of this surface area is onshore and more than 7 million km² is on continental shelves with a depth of less than 500m. The Arctic continental shelves are thought to have the largest unexplored petroleum reserves on Earth. In Canada, Russia, and Alaska, exploration has already occurred in several

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onshore areas. These explorations resulted in the discovery of more than 400 oil and gas fields north of the Arctic Circle. These discovered fields hold approximately 240 billion barrels of oil or oil-equivalent natural gas. This equates to nearly 10% of the world’s known petroleum resources. Despite the discoveries in Canada, Russia, and Alaska, the amount of petroleum in the Arctic was relatively unknown until 2008.

In May 2008, a team of scientists from the United States Geological Survey completed an appraisal of potential oil and gas reserves from newly discovered fields North of the Arctic Circle. The Arctic Circle is anything north of 66.56° latitude. This appraisal is known as the Circum-Arctic Resource Appraisal, or CARA. The CARA evaluated fields that were thought to have at least a 10 percent chance of having one or more sources of gas or oil accumulation. In this study, a significant accumulation is recoverable volumes of at least 50 million barrels of oil or oil-equivalent natural gas. Figure 3 shows the color-coded probability of the presence of at least one undiscovered oil or gas field. This study only evaluated the resources thought to be recoverable using existing technologies but it does include offshore areas under the assumption that resources would be recoverable despite the presence of sea ice and water depth.

48 Ibid.
49 Ibid.
50 Ibid.
The CARA team determined 33 provinces thought to contain petroleum reserves. The provinces are listed in Table 1 where they are ranked in order of the amount of estimated undiscovered oil, gas, and natural gas liquids (in oil-equivalent volumes). Of the 33, 8 were found to have less than 10 percent probability of a significant accumulation in any AU so they were not quantitatively measured. Table 1 shows the probabilistic results of the amounts of oil and gas found in the Arctic by province. The

\[\text{Figure 3. Probability of Presence of Oil or Gas Field}\]^{51}

\[\text{Figure 1. Assessment units (AUs) in the Circum-Arctic Resource Appraisal (CARA) color-coded by assessed probability of the presence of at least one undiscovered oil and/or gas field with recoverable resources greater than 50 million barrels of oil equivalent (MMBOE). Probabilities for AUs are based on the entire area of the AU, including any parts south of the Arctic Circle.}\]

\[\begin{array}{|c|c|c|c|c|c|}
\hline
\text{Probability} & \text{100} & \text{50–100} & \text{30–50} & \text{10–30} & \text{<10} \\
\hline
\text{Area of low petroleum potential} & & & & & \\
\hline
\end{array}\]

\[\text{PROBABILITY (percent)}\]

\[\text{<10} \text{ Area of low petroleum potential}\]

\[\text{51 Ibid.}\]
CARA assessed that 70 percent of the mean undiscovered oil is thought to occur in five provinces: Arctic Alaska, Amerasia Basin, East Greenland Rift Basins, East Barents Basins, and West Greenland – East Canada.\textsuperscript{52} For undiscovered natural gas, more than 70 percent is estimated to occur in three provinces: West Siberian Basin, East Barents Basin, and Arctic Alaska.\textsuperscript{53} The CARA team also estimated that around 84 percent of the undiscovered oil and gas occurs offshore. In total, the CARA team estimates that “the total mean of undiscovered conventional oil and gas resources of the Arctic are estimated to be approximately 90 billion barrels of oil, 1,669 trillion cubic feet of natural gas, and 44 billion barrels of natural gas liquids.”\textsuperscript{54} Until claims are finalized and an agreement is reached, will either have to cooperate or extract resources without the other nation’s permission which could lead to a dispute.

\textsuperscript{52} Ibid.
\textsuperscript{53} Ibid.
\textsuperscript{54} Ibid.
Table 1. Summary of Results of the Circum-Arctic Resource Appraisal

<table>
<thead>
<tr>
<th>Province Code</th>
<th>Province</th>
<th>Oil (MMBO)</th>
<th>Total Gas (BCFG)</th>
<th>NGL (MMBNGL)</th>
<th>BOE (MMBOE)</th>
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<td>WSB</td>
<td>West Siberian Basin</td>
<td>3,659.88</td>
<td>651,496.56</td>
<td>20,328.69</td>
<td>122,571.66</td>
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<td>Arctic Alaska</td>
<td>29,600.94</td>
<td>221,397.60</td>
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<td>72,765.52</td>
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<td>East Barents Basin</td>
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<td>81,255.16</td>
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<td>86,180.06</td>
<td>8,121.57</td>
<td>31,387.04</td>
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<td>Norwegian Margin</td>
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<td>504.73</td>
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<td>BP</td>
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<td>EB</td>
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<td>19,475.43</td>
<td>520.26</td>
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<td>NKB</td>
<td>North Kara Basins and Platforms</td>
<td>1,807.36</td>
<td>14,973.58</td>
<td>390.22</td>
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<td>Timan-Pechora Basin</td>
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<td>292.80</td>
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<td>NGS</td>
<td>North Greenland Sheared Margin</td>
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<td>Lomonosov-Makarov</td>
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<td>Sverdrup Basin</td>
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<td>LA</td>
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<td>NGA</td>
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Total: 89,983.21, 1,668,657.84, 44,064.24, 412,157.09

Table 1. Summary of the CARA

In the Lomonosov Ridge, there are three basins relatively near each other: Amerasia Basin, Eurasia Basin, and the Lomonosov-Makarov Basin. Russia, Greenland, and Canada have all included the ridge in their ECS claims. According to the USGS CARA survey, the three basins near the Lomonosov Ridge equate to 12,172.51 MMBO (million barrels of oil) and 27,346.49 MMBOE (million barrels of oil and oil equivalent

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55 Ibid.
natural gas. For reference, the average price for a barrel of crude oil from three important benchmark oil prices: UK Brent, West Texas Intermediate, and OPEC Basket. The average 2017 price between these three benchmarks was $52.48. The potential gross profit for oil and gas in the Lomonosov Ridge area using the average 2017 price is equivalent to $1.435 trillion. If any of these countries are awarded a territorial claim to the Lomonosov Ridge, they have the right to explore and exploit resources in the seabed and subsoil which includes drilling for oil and gas. Before a claim is awarded, the three countries risk instigating a dispute if they do not receive consent from the other countries to begin resource exploitation.

Shipping Routes

The Arctic is home to several prominent shipping lanes and passage routes for ships. Most of these routes are unusable due to the fact that they are covered in ice for the majority, if not the entirety, of the year. However, as sea ice is starting to melt the prospect of using two of these routes has become more feasible. The two most prominent routes are known as The Northwest Passage and the Northern Sea Route.

56 Ibid.
The Northwest Passage runs from the Atlantic Ocean to the Bering Strait right above Canada and Alaska.\textsuperscript{58} As you can see in Figure 4, the Northwest Passage has two potential routes around Victoria Island. The southern route goes under the island whereas the northern route goes above the island. The passage provides a shorter alternative compared to the Suez and Panama Canals. For example, going from London to Tokyo through the Northwest Passage is less than 8000 miles compared to 12,800 going through the Suez Canal.\textsuperscript{59} The passage also shortens the journey between New York and Shanghai via the Panama Canal by 3,000 miles.\textsuperscript{60} According to the National Oceanic and Atmospheric Administration, the southern route has remained open throughout the summer since 2006.\textsuperscript{61} The northern route has remained open every year in the summer since 2007 except for 2013 and 2014.\textsuperscript{62}


\textsuperscript{59} Ibid.

\textsuperscript{60} Ibid.


\textsuperscript{62} Ibid.
Since 2007, around 30 ships have sailed the Northwest Passage each summer (Katie Peek). In 2013, the *Nordic Onion* carried a load of coal from Vancouver to Finland making it the first large bulk ship to transit the passage. The cargo ship *Nunavik* traversed the passage the next year without icebreaker assistance. The French ship the Crystal Serenity became the first large-scale cruise ship to make the passage during the summer of 2016.63

The Northwest Passage is one of the contested territories between the United States and Canada. Canada has held sovereignty over the Arctic Archipelago since 1880. They claim that due to their territorial holdings in the archipelago, the Northwest Passage

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lies in their internal waters. This claim is contested by the United States and several European countries. In general, most countries contest Canada’s claim that the Northwest passage lies in their internal waters. If the passage lies in international waters, it means that ships can freely pass. If Canada’s territorial claims over the passage are validated, Canada gains control over the majority of the passage. Canada has stated that if their claim is proven they will allow for free passage of ships as long as certain pollution standards are met. According to the United Nations Convention on the Law of the Sea (UNICLOS), “Coastal States exercise sovereignty over their territorial sea which they have the right to establish its breadth up to a limit not to exceed 12 nautical miles; foreign vessels are allowed ‘innocent passage’ through those waters.” The Convention also details that Archipelagic states may designate sea lanes that other states may use for passage between the islands. Even though the Northwest Passage will always be open for foreign ships due to the Convention, Canada’s territorial claims in the Arctic Archipelago, if they are validated, give them significant control regarding navigation regulations, pollution standards, and size of the passage usable for ships.

The Northern Sea Route is the other prominent shipping lane in the Arctic. The Northern Sea Route runs along the northern coast of Russia. The distance between Northern Europe to China is significantly shorter when utilizing the Northern Sea route

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65 Ibid.
compared to other shipping routes. For example, it is 40% shorter compared to the Suez Canal and 60% shorter than the Cape of Good Hope.  

Figure 5 shows the differences between the distances in the Northern Sea Route and the Suez Canal. As the ice continues to melt, the use of this shipping lane becomes more viable for longer periods of time. In August 2017, the first ship traversed the passage without the use of icebreakers. If Russia’s claim through UNCLOS is proven, it gives them control over the Northern Sea Route. As with Canada, both countries must follow the rules outlined in UNCLOS regarding passage of foreign ships.

![Figure 5. Northern Sea Route](image)

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Even though these shipping routes will always be open for free innocent passage regardless of the territory they fall in, if Russia and Canada’s claims are validated by the UN, it gives them a unique advantage. Their potential ability to control shipping regulations allows them to create or enforce rules that may not appeal to other countries.

The melting ice in the Arctic region is creating new economic opportunities in the Arctic. The vast amount of natural resources in the Arctic is an important discovery. As the ice continues to melt, the reality of harvesting those natural resources for use becomes more apparent. The current delineations for exclusive economic zones in the Arctic were mutually agreed upon by countries where they may be overlap. However, these borders are spoken agreements and rarely outlined in any type of definite policy. As the ice recedes, countries such as Canada, Russia, and the United States may decide to reclaim certain parts of their EEZs in order to protect their potential newfound resources in the Arctic. The economic benefit from harvesting the oil and natural gas in the Arctic is so great that the push to ensure exclusivity to these resources may turn the current peacefulness into a tense conflict. Furthermore, the shipping lanes in the Arctic are two of the fastest shipping routes in the world. Each year, the ice covers less area in the Arctic and for shorter periods of time. The elongated use of these shipping lanes is of great interest to the countries with claims over the shipping routes as well as countries with businesses who may benefit from the use of these new routes. Maintaining control of the shipping lanes gives countries the unique advantage of outlining the regulations for passing ships.
Case Study

To understand how resource greed over non-contiguous land disputes can lead to potential levels of conflict, it is important to look at similar situations occurring in other parts of the world. Below, I will analyze how conflicts in the South China Sea provide relevant, situational examples that demonstrate possible outcomes in the Arctic.

South China Sea

The South China Sea comprises an area of nearly 1.4 million square miles in the Pacific Ocean. It extends from the Strait of Malacca to the Strait of Taiwan. The most prominent and contested islands in the Sea include the Spratly Islands, the Paracel Islands, the Pratas Islands, Macclesfield Bank, and Scarborough Shoal. All six of the major Southeast nations lay claims to these islands. The six major nations involved in the dispute are China, Brunei, Taiwan, Malaysia, Vietnam, Philippines, and Indonesia. Similar to the Arctic, the dispute is over more than just the land of islands themselves but also the EEZs and ECSs that give them rights to explore and exploit the ocean resources. The South China Sea is incredibly resource rich with a multitude of natural resources, fisheries, trade routes and also military bases. The World Bank states that the South

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China Sea has proven oil reserves of nearly seven billion barrels and nearly 900 trillion cubic feet of natural gas.\textsuperscript{70}

China is at the center of much of the tension as their nine-dash line gives them EEZ access to much of the South China Sea. As a result, all of the six countries have increased their militarization of the region. Recent points of contention include: a lengthy maritime standoff between China and the Philippines over intrusions into Scarborough Shoal in 2012; in 2013, the Philippines threatened to take China to a UN tribunal over violations of UNCLOS claims; and a Chinese drilling rig in the Paracel Islands led to multiple collisions between Chinese and Vietnamese ships in 2014.\textsuperscript{71}

Even though these are all unarmed stand offs, they have the potential to escalate into something more. Countries such as the US have sent navy ships to the Philippines to escort trade ships in the event of a conflict.\textsuperscript{72} The South China Sea relates to the Arctic because it shows how resource greed over non-contiguous territorial claims can lead to stand-off disputes, increase militarization in the region, and escalate tensions.

\textsuperscript{70} Ibid.
\textsuperscript{72} Ibid.
Chapter 4: Military Capabilities in the Arctic and Increasing Military Tensions

The previous chapter discussed potential economic opportunities developing as a result of the changing climate in the Arctic. In this chapter, I will explore how the receding sea ice is also changing the military landscape in the region. The Arctic ice cap reinforces the boundaries of Arctic countries. Klaus Dodds, a professor of geopolitics at Royal Holloway, explains that “The unique Arctic security architecture has shape and form that comes from natural extremities. If the Arctic becomes just another ocean, this breaks down.” The rapid disappearance of the ice exposes more open water for access and exploitation. NASA, along with many other climate change experts, predict that the Arctic will be completely ice free in the summer by 2050. The future breakdown of the Arctic ice boundaries coupled with the potential for economic exploitation provides greater incentives for countries to define their territorial claims in the Arctic.

In order to prepare for a future open ocean in the Arctic, countries with territory in the region are strengthening or planning to strengthen their Arctic military capabilities. Russia, Canada, and the United States are among the countries who have recently revamped or laid out plans to revamp their military and military strategies. This chapter is split into two sections. The first section details the current military capabilities of Canada,
Russia, and the United States. This includes bases in the Arctic, weapons and
weapon systems, ships and icebreakers suited for the Arctic as well as military exercises
and soldiers trained for Arctic conditions. This section also looks at plans from the three
countries to expand their capabilities, including new weapons and ships, plans to
implement new strategies, and if they intend to increase their presence in the region.

The second section of this chapter expands on the first section by examining how
stronger Arctic militaries and an increased presence will affect cooperation amongst
Arctic countries. As of now, the current trend in the region is to work on continuing and
strengthening cooperation between the eight countries. I will continue to look specifically
at the relationship between Canada, Russia, and the United States. However, I will also
examine the overall relationship between the eight countries including rising tensions
amongst several of them. This chapter aims to demonstrate how the rapidly shifting
geospatial landscape in the Arctic is causing tensions between invested countries to
rise and incentivizing them to broaden their presence.

**Current and Planned Military Capabilities**

Canada, Russia, and the United States have three of the strongest militaries in the
world. In quantitative rankings from Credit Suisse and Global Fire Power, Canada is
significantly lower down on the list, comparatively, but normally in the top 25 of the
world’s strongest militaries. The United States and Russia are constantly ranked in the
first and second spot, respectively.\(^{75}\) Despite, the overall military strength of these

\(^{75}\) Jeremy Bender, “Ranked: The World's 20 Strongest Militaries,” Business Insider
(Business Insider, April 21, 2016), https://www.businessinsider.com/these-are-the-
worlds-20-strongest-militaries-ranked-2016-4.
countries, the Arctic terrain differs so greatly from the rest of the world that military strength and size does not apply in the same way. The Arctic ice cap and freezing temperatures render many of the traditional weapons, weapon systems, and transportation craft useless or unusable. As a result, the capabilities of these countries differs drastically in the Arctic compared to other regions of the world.

In the Arctic, Russia has the most advanced and capable military. As discussed in the first chapter, Russia’s policy in the Arctic focuses primarily on non-military issues and maintaining cooperation. Two policy documents, Russian Military Doctrine (2014) and Maritime Doctrine (2015), do focus on protecting interests in the Arctic and maritime security concerns. To showcase the importance of Arctic military security, Russia has increased their already strong Arctic military capabilities. In December, 2014, Russia founded the Northern Fleet Joint Strategic Command, a new military district of the Russian armed forces, to include the Arctic region.\(^76\) Russia has also increased the training of its Arctic soldiers. One instance occurred in 2015 when Russia mobilized 12,000 troops and 250 aircraft in the Arctic region in a snap exercise.\(^77\)

Russia’s air capabilities in the Arctic consist of the aircraft of the Northern Fleet. The majority of the aircraft do not have the range to fly beyond Russia’s territory with the exception of around 100 bomber and reconnaissance aircraft. Russia has reopened several air and radar bases that closed after the Cold War. They also have plans for open 10 radar bases and 13 air bases along the Arctic edge.\(^78\) On land, the Russian military is trained for

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\(^77\) Ibid.
\(^78\) Ibid.
the winter of the Russian Arctic but not areas more towards the center of the Arctic ice cap. In 2011, Russia planned to mobilize two new infantry brigades with 3600 troops to the Arctic. The first brigade will be stationed on the Kola Peninsula and the second in Yakutia. The Russian military gains most of their Arctic strength from their Navy. The Northern Fleet (Arctic Fleet) is the largest of Russia’s five fleets. The Russian Navy has 1 large icebreaker, 4 small ice breakers, 3 large armed icebreaking OPVs operated by the Border Guard, and over 20 civilian icebreakers that can be used by the Navy if needed. Most importantly, Russia’s Northern Fleet has most of Russia’s SSBNs, or ballistic missile submarines. They are protected by surface ships and nuclear-powered submarines and operate in the Arctic.79 Russia also has started production on a number of new icebreakers and SSBNs expected to be finished by 2020. A large number of Russia’s plans to build more submarines, aircraft carriers, and amphibious ships will not likely be realized due to budget issues. However, the Northern Fleet is rapidly expanding and the Russian military has the largest Arctic capable military in the world. Figure 6 shows a map with the location of Russian Military bases and headquarters.

79 Ibid.
In Canada, there has been a push in the last two decades to amplify their military capabilities in the Arctic. Under Justin Trudeau, he promised a renewed focus on the Arctic regions. The Royal Canadian Air Force operates a wide array of aircraft. Aircraft that is capable of flying in the Arctic includes 18 anti-submarine warfare, 77 combat

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aircraft, and 8 transport aircraft (2 acquired and 6 being modernized). The Canadian Royal Air Force is currently trying to modernize much of its original fleet as well as acquire new aircraft. Canada also operates an extensive air surveillance radar network in the Arctic region. On land, the entire Canadian Army is cold weather trained and much of its equipment is useable in the Arctic temperatures. The Canadian Rangers is a lightly armed patrol and reconnaissance force trained for year round Arctic missions. The Army has a small base on Ellesmere Island and opened a new Arctic training center in Resolute Bay in 2013. Canada’s 13 warships and 4 submarines cannot operate in the Arctic during the summer unless accompanied by an icebreaker. The Navy has no icebreakers or ice-strengthened ships. The Coast Guard has 6 large icebreakers and 7 small ones but most of these can only break thin summer ice. The Canadian government keeps delaying plans to build more Arctic capable sea craft.

The United States does not have one command in charge of the Arctic. Currently, the Northern Command, Pacific Command, and European Command share responsibilities in the Arctic. For the Air Force, they have two bases in Alaska that are near the Arctic: Eilson and Elmendorf. They house combat, support, interceptor and airborne early-warning aircraft. The Air Force also has use of the Thule base in Greenland and the Keflavik base in Iceland.

On land, the US army has increased their Arctic training efforts. The army has two bases in Alaska, one near Anchorage and one near Fairbanks. The army also operates the Cold Regions Research and Engineering Laboratory, the Cold Regions Test Center,

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81 Wezeman, Military Capabilities in the Arctic.
82 Ibid.
83 Ibid.
and the Northern Warfare Training Center. The entire US army completes their cold-weather training at the Northern Warfare Training Center. The US Army Alaska (USARAK), self-dubbed themselves “America’s Arctic Warriors”. The unit is comprised of ordinary infantry and airborne troops. Despite their nickname, they are not specifically trained for Arctic military operations. The Alaska National Guard is the unit most likely to receive and carry out Arctic operations.

Many of the US aircraft carriers, large combat ships and amphibious ships are usable in the Arctic under the right conditions. Nearly 51 of the US submarines are operable in the Arctic. They are capable of transit underneath and breaking through the ice. The Arctic Submarine Laboratory, under the command of the Pacific Fleet, is responsible for maintaining the submarine capabilities in the Arctic.

Russia, Canada, and the United States have military capabilities in the Arctic region. Russia’s military equipment and training capabilities surpass both the United States and Canada when it comes to the Arctic. In recent years, all three countries have increased their military proficiency as well as their presence in the Arctic. While it is highly unlikely an armed conflict will erupt in the Arctic, understanding each country’s military capabilities is important in determining the risks and levels of a possible dispute. The increasing amount of presence and capability in the region heightens tensions as each country aims to stay on par with the others.

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84 Ibid.
85 Ibid.
86 Ibid.
87 Ibid.
88 Ibid.
89 Ibid.
Cooperation in the Arctic Moving Forward

The current trend amongst countries in the Arctic is to ensure that cooperation prevails. As discussed in the first chapter, Russia, Canada, and the United States each have their own unique Arctic policies. They all value and list security and military concerns yet remain clear that cooperation is imperative to their policy. These three countries, as well as the other five with claims in the Arctic, are very likely to continue to ensure cooperation but tensions amongst these countries will likely continue to grow at the same time. It is highly likely that armed conflict will not erupt in the Arctic. It is likely that an unarmed military standoff or show of power may occur if tensions continue to increase. This section analyzes the current state of cooperation in the Arctic, its weaknesses, and examples of past situations where Arctic militaries displayed their capabilities.

Eight countries hold territory in the Arctic. The eight countries are Norway, Sweden, Finland, Denmark, Iceland, Russia, Canada, and the United States. Five of these countries are members of NATO: Norway, Denmark, Iceland, Canada and the United States. Sweden and Finland are not NATO members but have a long-standing partnership with the organization especially when it comes to monitoring and countering the military activities of Russia. Russia is the only country without a positive relationship to the alliance. In 2014, NATO suspended cooperation with Russia due to their involvement in Ukraine.

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91 “Relations with Russia,” NATO (NATO), accessed March 23, 2019, Relations with Russia.
92 Ibid.
The Russian military’s weapons and weapons systems, equipment, and training abilities in the Arctic outweigh the capabilities of all the other countries combined. In 2014, the same year relations deteriorated with NATO, Russia included the protection of Russian interests in the Arctic in its Military Doctrine. In correspondence with its effort to increase protections of Arctic interests, it founded the Northern Fleet Joint Strategic Command at the end of the same year. As of 2018, Russian troops were deployed to the Command. Russia has not had a set military base in the region or sole Arctic military operations since the Soviet area. The updated Arctic policy and opening of the command the same year that NATO relations deteriorated with Russia signifies their aim to increase their military presence in the region.

The Arctic region is of significance not only because of its potential economic endeavors but also the geographical proximity it provides. The distance from Russia to the United States and Canada is the shortest through the Arctic. Furthermore, the distance between any Arctic nation is closest if travelling across the Arctic. During the Cold War, the Arctic was important for the United States and Russia because it provides the shortest distance to reach the other country with aimed weapons.93 Russia’s remilitarization of the Arctic in recent years, has been perceived as a potential threat for North American and European security.

Case Studies

The following two case studies show how Arctic nations are not only revamping their military capabilities but partaking in military exercises. The first military exercise,

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the Trident Junctures, was a joint NATO force military exercise. The occurrence of the Trident Junctures and Russia’s response signifies that tensions in the Arctic are rising and countries are not afraid to flex their military force. The second military exercise, Vostok 2018, is a reoccurring Russian military exercise. However, in 2018, Russia showcased their Arctic military capabilities. Both exercises occurred in the same year which likely signifies that the Arctic countries are preparing for future conflicts and stand offs. It also likely signifies that NATO aligned countries and Russia want to alert the other side of their readiness in the event of a future conflict.

*The Trident Junctures*

In response to Russia’s expansion into the Arctic, NATO and allied countries, Finland and Sweden, participated in a military exercise called Trident Juncture. The event took place in 2018 from October 25th to November 7th.\(^94\) The exercises involved 51,000 troops and multiple aircraft and vehicles. The exercise took place in Norway. Norway is the only NATO member with a long standing military presence in the Arctic region. Trident Juncture 2018 was NATO’s largest military exercise in years. The purpose was to test NATO’s ability “to plan and conduct major collective defensive operation under an Article 5 scenario.”\(^95\) An Article 5 scenario is a collective defense to an armed attack of one ally. NATO emphasized that these measures are preventative and not meant to provoke anyone. The Trident Junctures military exercise is significant because it portrays that Arctic countries believe they need to be trained and capable to respond to an Article 5 scenario. While NATO regularly conducts joint military exercises amongst member


\(^{95}\) Ibid.
nations, Trident Juncture was the first Arctic specific exercise since the Cold War. NATO’s decision to hold an Arctic based military exercise was not only to practice Article 5 scenarios but also to display their own readiness and capabilities in the event of conflict.

The Russian Foreign Ministry responded back that the exercise were clearly “aggressively anti-Russian” and Defense Minister Sergei Shoigu said “NATO's military activities near our borders have reached the highest level since the Cold War.”96 Furthermore, Russia scheduled missile testing off the coast of Norway from November 1st through the 3rd to coincide with Trident Juncture. Russia followed normal protocols and procedures in notifying the proper channels of their planned tests.97 Russia continued to comment on the Trident Junctures at The Arctic: Territory of Dialogue 5th International Forum in April 2019. At the forum, Russian Foreign Minister Sergey Lavrov commented on the “anti-Russian” Trident Junctures and accused NATO countries of wanting to replace the environment of cooperation with more militaristic attitudes. He stated that:

I am hoping the spirit of the Arctic Council will prevail…we feel that some NATO countries would like to dispel this spirit and replace it with a militaristic attitude. I am convinced that our northern neighbors understand that such


approaches are dangerous and counterproductive and will not allow them to prevail. 98

The Trident Juncture and Russia’s response to it show how increasing tensions are beginning to lead to militaristic shows of power. All parties involved followed the proper procedures which signals that cooperation is still relevant. However, it also signals that both NATO and Russia want the other to know that they capable and prepared to take military action if ever necessary. These micro level disputes portray the increasing tensions in the area and how Arctic countries are responding with shows of military power.

Vostok 2018

Russia’s Vostok military exercises are part of the nation’s regularly scheduled events. It involves servicemen from all of Russia’s eastern and central military districts. Vostok 2018 involved 300,000 troops making it the largest Russian military exercise since the Soviet Union. 99 The 2018 Vostok exercises included Arctic components. During the exercises, the Russian’s completed the first amphibious landing in the Arctic on the Coast of Chukotka. 100 This signifies Russia is consistently working to improve their Arctic capabilities and remain the strongest single player in the region.


100 Levon Sevunts and Radio Canada International, “Russia Flexes Its Military Muscles with Arctic Component of Vostok 2018 War Games,” Eye on the Arctic, September 17,
Rob Huebern, a senior research fellow at the Centre for Military and Strategic Studies, stated that the Russians included Arctic components for three reasons. He stated the first reason is because Russia is a hegemon in the Arctic and this allows them to show the international community how powerful they are in the region.\textsuperscript{101} The second is to send a message to Sweden and Finland to warn them against their historical neutrality with NATO.\textsuperscript{102} The third is:

That they also have to be practicing to improve their capabilities in that region because it continues to be the centre of both their regional development – oil and gas, and shipping – as well as at the centre of their geopolitical doctrine and that of course is their nuclear deterrent.\textsuperscript{103}

The inclusion of Arctic drills in the Vostok 2018 exercises was both for practical and show of power reasons. As do most countries, Russia constantly works to improve or maintain their military capabilities, including in the Arctic. However, as Huebern stated, the inclusion of Arctic drills was also likely to send a message to other Arctic nations that Russia is incredibly capable, willing, and prepared in the event of a future conflict.

\textsuperscript{101} Ibid.
\textsuperscript{102} Ibid.
\textsuperscript{103} Ibid.

Chapter 5: Conclusion

Russia, Canada, and the United States along with the NATO and other Arctic nations have stated their goal is to maintain cooperation in the Arctic. NATO and the US both want to keep the region an area of low tension. The current Arctic policies of Russia, Canada, and the United States simultaneously call for maintained cooperation and the right to protect their sovereignty. Cooperation is possible in the future as long as the sovereignty of each nation is not threatened. As detailed in the third chapter, the Arctic is a land of contested territories. Climate change is transforming the natural boundaries of the area. Areas that formally went unnoticed due to year-round ice coverage are now receiving more attention. As a result, the amount of contested areas in the region are beginning to grow and the resources they provide are more feasibly obtained. The Arctic nations will likely face growing tensions related to competing territorial claims and access to resources in those areas. The Arctic is a land of vast economic opportunity and countries such as Russia, Canada, and the United States are eager to bring new business ventures home to their citizens.

The contested territorial claims and the possibility of a treasure cove of economic opportunities is causing the Arctic countries to amplify their military capabilities and presence in the region. The increased military presence can be seen by the new weapons, weapon systems, equipment, and presence of the Arctic military. Canada and the United States are working independently and with NATO to strengthen their military abilities in the Arctic. Russia, the long-time hegemon of the North, is alerting the international world
to their already obtained Arctic strength and showing them that they are only going to continue to grow.

It is also important to note that the term conflict when applied to the Arctic is fluid on the continuum. The governments of the Arctic nation have the ability to move a conflict up or down the continuum based on the decisions they do or do not make. If the current situation maintains, it is unlikely that an armed conflict will erupt. However, increased tensions, unarmed military stand offs, military shows of power, and mid-level disputes are likely to occur in the Arctic. If the Arctic nations want to maintain cooperation in the region, proactive steps need to be taken in regards to border and resource agreements.
Bibliography


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