

**CHARLES UNIVERSITY**  
FACULTY OF SOCIAL SCIENCES  
International Area Studies

**Master's Thesis**

**2019**

**Zachary Lavengood**

**CHARLES UNIVERSITY**  
FACULTY OF SOCIAL SCIENCES  
International Area Studies

**The United States, China, and the Emerging Balance of  
Power in the Arctic**

Master's thesis

Author: Zachary Lavengood

Study programme: Master of Area Studies

Supervisor: PhDr. Jan Hornát, Ph.D.

Year of the defence: 2019

## **Declaration**

1. I hereby declare that I have compiled this thesis using the listed literature and resources only.
2. I hereby declare that my thesis has not been used to gain any other academic title.
3. I fully agree to my work being used for study and scientific purposes.

In Prague on April 24, 2019

Zachary Lavengood

## References

LAVENGOOD, Zachary. *The United States, China, and the Emerging Balance of Power in the Arctic*. Prague, 2019. 91 pages. Master's thesis (Mgr.). Charles University, Faculty of Social Sciences, Supervisor PhDr. Jan Hornát, Ph.D

**Length of the thesis: 127,388 characters including spaces**

## **Abstract**

The increasing pace of climate change in the last two decades has brought the Arctic, a former geopolitical afterthought, into growing prominence on the global stage. Receding ice and melting tundra have made a cornucopia of rare earth metals and hydrocarbons ripe for extraction as well as opened new shipping lanes which have the potential to revolutionize how goods are moved around the planet. In this emerging environment is a budding balance of power which involves the most powerful actors in the world-system, two of which, the United States of America and the People's Republic of China, are the focus of this thesis. Their respective arctic policies shape the balance of power for not only themselves, but for all other actors in the theater. The United States' laissez faire attitude towards the Arctic has caused it to fall behind the progress of other powers in the region which could make it difficult to assert its influence in the theater in the future. China however has chosen to follow an ambitious arctic policy despite its geographical distance from the region, and has given the arctic a prominent position in its greater Belt and Road project, much to the suspicion of traditional arctic powers.

Analyzed through a realist lens, the balance of power in the Arctic appears to be stable for the time being as actors continue to fill in a vacuum of influence, allowing them to avoid maneuvers which might raise tensions to unacceptable levels. This stability though will not last forever. The Arctic is still revealing its bounty via the progression of climate change and as the vacuum fills the balance of power will begin to shift making conflict more likely.

The interconnected arctic dynamic and the emerging balance of power has yet to receive intensive study from academia, an oversight which this work aims to diminish, as well as prompt further research this increasingly important geopolitical region.

## Abstrakt

V souvislosti s rostoucím tempem klimatických změn posledních dvou desetiletí se region Arktidy znovu dostává do centra mezinárodní politiky. Tání pevninských ledovců a permafrostů v Arktidě nejen že zvyšuje dostupnost těžby nerostných surovin, ropy a zemního plynu, ale také otevírá možnosti vzniku nových cest námořní dopravy, které mají potenciál radikálně změnit podobu světového obchodu. Geopolitický potenciál Arktidy se tak zvyšuje, což má za následek zvýšení zájmu světových velmocí o tento region. Výjimkou nejsou ani Spojené státy americké a Čínská lidová republika, na něž se tato práce zaměřuje. Jejich příslušné arktické politiky totiž formují rovnováhu sil nejen mezi nimi samotnými, ale i mezi ostatními aktéry mezinárodní politiky. Spojené státy americké dlouhou dobu zaujímaly v otázce Arktidy postoj laissez-faire, což způsobilo, že v porovnání s ostatními aktéry co do přítomnosti v arktické regionu značně zaostávají. Oproti tomu Čína se rozhodla navzdory své zeměpisné vzdálenosti výrazně svou přítomnost v regionu posílit. Arktidě totiž přikládá strategickou roli ve svém projektu novodobé Hedvábné stezky (Belt and Road Project).

Z pohledu realismu se rovnováha sil v Arktidě momentálně jeví jako stabilní, neboť jednotliví aktéři pokračují ve vyplňování prostoru, jež byl až doposud mocensky nezaplňen. To jim prozatím umožňuje vyhnout se krokům, které by mohly vést ke konfliktu. Tato stabilita nicméně nemusí trvat věčně. V důsledku globálního oteplování totiž Arktida nabývá strategického významu a v okamžiku, kdy se dosavadní mocenské vakuum zaplní, rovnováha sil se začne posouvat, což bude mít za následek zvýšení pravděpodobnosti konfliktu.

Provázanosti geopolitického významu Arktidy s otázkou mocenské rovnováhy nebyla doposud odbornou veřejností věnovaná dostatečná pozornost. Záměrem této diplomové práce je tedy

jednak tuto mezeru vyplnit, ale také dát podnět k dalšímu výzkumu tohoto důležitého geopolitického regionu.

**Keywords**

Arctic, Balance of Power, Realism, China, United States of America, Arctic Shipping, Arctic Resources

**Klíčová slova**

Arktida, Mocenská Rovnováha, Realismus, Čína, Spojené Státy Americké, arktická námořní přeprava, arktické nerostné suroviny

**Title**

The United States, China, and the Emerging Balance of Power in the Arctic

**Název práce**

Čína a vznikající mocenská rovnováha v Arktidě



## Table of Contents

Introduction.....	10
Sources of Competition in the Arctic.....	14
The Arctic Policy of the People’s Republic of China and the United States of America.....	28
Arctic Partnerships.....	40
The Balance of Power in the Arctic.....	52
Conclusion.....	77
Works Cited.....	81
List of Appendices.....	91

## Introduction

For most of recorded history the Arctic has been an afterthought; too remote and inhospitable for development and too ice-locked for any meaningful navigation. When the region began to garner interest during the Cold War, its only perceived utilities were shortened trajectories for ICBMs and sites for early-warning radar systems. Now, with yearly records of receding ice and ice-free summers forecasted to begin in the 2030s, the political and economic importance of the Arctic is being realized.<sup>1</sup> At stake is more cost efficient shipping between Asian and European markets, vast reserves of hydrocarbons and rare earth metals previously hidden beneath perennial ice, and fishing grounds made rich by the migration of fish northward. As Arctic actors jostle for a piece of the thawing bounty, the likelihood of conflict increases as disputes rise over access rights, sovereignty, environmental responsibility, and militarization.

This brings attention to a growing balance of power in the Arctic region taking place in a complexity of state and non-state actors, two of whom, the United States and The People's Republic of China, are the focus of this paper. Their bilateral, multilateral, and unilateral actions best reflect the geopolitical and economic intricacies of a theater that will only increase in importance during the 21<sup>st</sup> century. This regional balance of power is unique in the contemporary world-system as the actors involved constitute the bulk of global military power, economic power, and prestige. Analysis of this balance also gives an insight into the contrasting challenges and motivations of Arctic littoral states and non-Arctic states, a critical distinction which will shape international relations in the coming decades. Broken into four sections, this paper will cover the sources of competition in the Arctic, the individual Arctic policies of the United States

---

<sup>1</sup> (Wang and Overland 2012)

and China, partnerships in the region, and the impact both actors have on the Arctic balance of power.

Analysis will be conducted through a realist lens, as the region, its actors, and balance are still taking shape. Realism, in short, theorizes that states and actors participate in an anarchic world, where the imperative of survival encourages a perpetual struggle for relative power in zero-sum realities. Realism's pragmatic world view allows this work to be later used in further research without being weighed down by other, more ideologically bound approaches. No one particular definition of realism from its millennia long history will be dogmatically used in this analysis, instead, a synthesis of different aspects of the realist tradition from the last century will be implemented in order to keep the work as grounded as possible. Notable aspects of this synthesis include: 'self-help' among states as defined by Kenneth Waltz in *Theory of International Politics* (1979) where actors are responsible for their own survival and advantage; a drive by states to maximize relative power as described by John Mearsheimer in *Tragedy of Great Power Politics* (2001); and inspiration from the neoclassical realist school of thought which emphasizes greater attention to unit-level variables.<sup>2</sup>

The final analytical chapter, *The Balance of Power in the Arctic*, will use methods laid out by A.F.K. Organski's work *World Politics* (1968) to identify methods by which actors in the Arctic are presently influencing the balance of power and how these influences not only effect other actors, but also how they might affect the future of Arctic affairs. Balance of power theory is a preferred method for analyzing the geopolitics of the Arctic, a theater where actors are actively jostling for an advantage over one another, in an environment where the gains of one actor or actors often signal a loss or disadvantage for others that can only be rectified by their own

---

<sup>2</sup> (Baylis, Smith and Owens 2011)

pursuit of gains. Organski's work highlights six methods by which actors affect the balance of power and this final chapter will look for correlations between these six methods and the current state of the Arctic.

This work intends to provide an insight into an understudied dynamic which will, in a few short years, be at the forefront of international relations and prompt further research.

### **Literature Review & State of Arctic Research**

Compared to more traditional areas of geopolitical study such as the Middle East or Europe, the Arctic remains a relatively niche research subject, though, it is gaining in popularity as it becomes more prominent in global affairs. As might be expected, a large number of the publishers, journals, and think-tanks who produce the literature on the Arctic are based in states who participate in and have a vested interest in the future of the region. Featured prominently in this thesis are works from Denmark, Canada, Norway, the United States, and Sweden. Below is a review of the current state of Arctic research and the most notable sources of literature on the subject.

It is important to note at the outset that the release of China's 'Arctic White Paper' in January of 2018 fundamentally changed analysis of China's participation in the Arctic. This white paper laid out the extent of China's arctic policy which had, until this release, remained speculative and thus much of the prior analysis on the possible details of China's policy in the Arctic was made out of date. Researchers have since then worked to produce new analyses of this event, however presently the phenomena remains understudied.

This aside, current research on the Arctic falls into three main categories: security, economics, and international relations. Security research primarily focuses on individual actors and their

reactions to developments in the Arctic from a security perspective as well as the on flash points around the theater which could lead to future conflict. Lackenbauer and Huebert produced a prime example of such research, wherein they lay out both the root of current security dilemmas for Canada and the United States, as well as provide an analysis of their relationship's impact on military preparations in the Arctic. (Lackenbauer and Huebert 2015)

Economic works generally focus on resource extraction (Andersson, Zeuthen and Kalvig 2018) (Hsiung 2016) or on the future of Arctic shipping (Huang, Lasserre and Alexeeva 2015). A significant portion of Arctic economic research is concentrated on China and Russia, the most active economic powers in the Arctic, works on other powers' economic participation in the Arctic tends to fixate on their lack of action on economic potential such as Glenn Wright's *Alaska: Are We the Waiting?* (Wright 2017) and Annika Nilsson's *The United States and the Making of and Arctic Nation*. (Nilsson 2018)

Works focused on international relations in the Arctic, such as Elizabeth Wishnick's book on China's interests and goals in the region and their effect on the United States (Wishnick 2017) and Stronski & Ng's review of cooperation and competition between China and Russia (Stronski and Ng 2018) form a synergy of both security research and economic research as well as include the impact of diplomatic discourse on Arctic geopolitics. Their contributions provide the most accessible research to authors who might not have strong backgrounds in either security studies or economics.

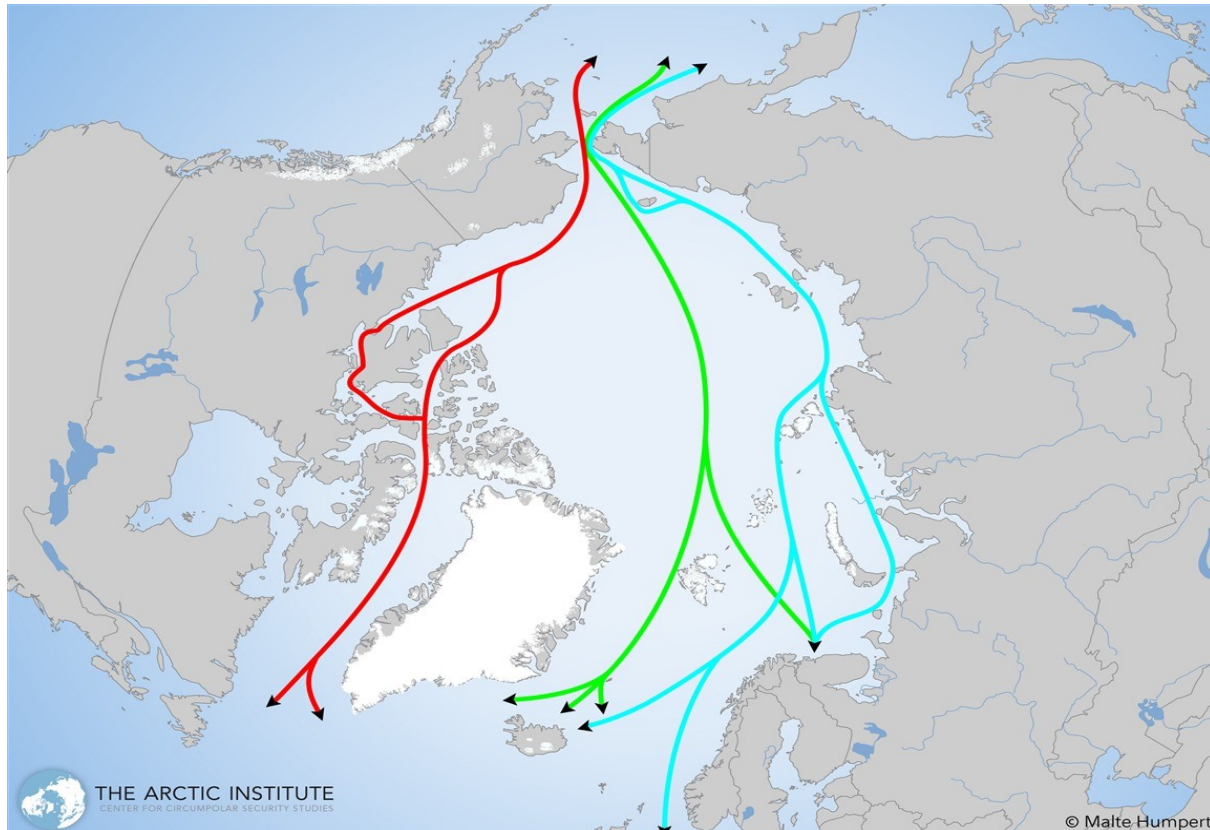
## **Sources of Competition in the Arctic**

Only in recent decades with sea ice receding has the full potential of the Arctic begun to be realized. Arctic shipping, especially in future decades as the Arctic's ice-free season lengthens, promises to greatly shorten cargo transit between Asia and the North Atlantic and provide more efficient delivery for just-in-time manufacturing as well as a dramatic reduction in associated costs. Large reserves of hydrocarbons and rare earth metals have been assessed and have become more extractable as technology improves and environmental conditions become more agreeable. Living resources, namely fisheries, have the potential to grow as fish migrate north due to shifts in water temperature and supplement shrinking stocks elsewhere in the world. Much of the Arctic has been delineated for decades between littoral states, making direct conflict over resource rights unlikely, however the potential for conflict exists over collective Arctic stewardship and the freedom of navigation.

### **Arctic Shipping**

Navigable and efficient sea routes linking the North Atlantic and Asia, which can bypass the costly Suez and Panama canals as well as avoid pirate havens such as the Malacca Straits and the Horn of Africa, have become a long-sought reality. Three routes have opened with the receding ice: the Northern Sea Route (NSR) which crosses over the Eurasian Arctic, the North West Passage (NWP) which passes through the American and Canadian Arctic, and the Transpolar Sea Route (TSR) which crosses the North Pole and exits between Greenland and Eurasia. All three routes must at some point pass through the Bering Strait which lies in between the Eurasian and North American landmasses. Each route has advantages and disadvantages which shipping firms

must weigh accordingly, such as length of shipping season, development of rescue and ice-breaking capabilities, and the territorial claims of littoral states, among other considerations.



*NWP-Red TPR- Green NSR- Blue<sup>3</sup>*

### *Bering Strait*

The Bering Strait, which separates Eurasia and North America and links the Pacific Ocean to the Arctic Ocean, is a major chokepoint for all three Arctic passages. At its narrowest point, the strait is roughly 85 kilometers wide and is split territorially between the United States and Russia at the Diomedes Islands which themselves are separated by less than 5 kilometers. Currently, the strait is navigable for over half of the year beginning in mid-June with accessibility diminishing in the late-Autumn months. During the winter months an ice-pack averaging a meter and a half

<sup>3</sup> (Humpert and Raspotnik, The Future of Arctic Shipping 2012)

in thickness and severe, unpredictable weather limits accessibility to only the most hardy of vessels and making commercial traffic impossible.<sup>4</sup>

Strategically the strait has a capacity to halt East-West sea traffic passing through the Arctic. This strategic value should not be underestimated, though it does have limitations which will become more pronounced in the future. The first of these limitations is the strait's status under UNCLOS which allows vessels "the right of transit passage, which shall not be impeded,"<sup>5</sup> this freedom of navigation presently is not a point of contention as Russia is a party to the convention and the United States has been a long proponent of navigation rights. However as traffic increases in the future, any unilateral action to close the strait will undoubtedly bring a heavy international response. A second limitation to the strait's strategic importance is the development of Russia's infrastructure in the Far North and Far East. New rail and road connections between Chinese industrial centers and existing or proposed ports on Russia's Arctic Coast (described in greater detail as the 'Polar Silk Road' in other sections) create an overland shipping corridor which can bypass the Bering Strait.<sup>6</sup>

### *Northern Sea Route*

The NSR is the most developed out of the three Arctic passages and so far has received the most shipping traffic.<sup>7</sup> Situated over the top of the Eurasian landmass, it offers the shortest route from East Asia to Western Europe, reducing the traditional journey via the Panama Canal or Suez Canal by thousands of kilometers, saving weeks in cost and shipping time.<sup>8</sup> Currently, the NSR

---

<sup>4</sup> (Chief of Naval Operations 2014) (Encyclopedia Britannica 2011)

<sup>5</sup> (United Nations UNCLOS 1982) Part III

<sup>6</sup> (Berkman, Vylegzhanin and Young 2016) (Chief of Naval Operations 2014) (Roseth 2014) p.853 (Stronski and Ng 2018)

<sup>7</sup> (Olesen 2017) p.10

<sup>8</sup> (Hong, China's Interests in the Arctic: Opportunities and Challenges 2018)p.7



has the longest shipping season, spanning from late spring/early summer to the middle or end of September with the best coverage of support vessels and search and rescue capabilities.<sup>9</sup> The waters of the NSR are overwhelmingly controlled by one Arctic actor, Russia, who views the opening sea lanes as paramount to its economic future.<sup>10</sup> The NSR not only facilitates the shipment of hydrocarbons from the oil and gas fields in the far Siberian north, but also stands to provide the Russian government with a boon of transit license fees and service charges from shipping firms. However due to economic troubles in Russia over the last decade, there has been a shortage of domestic capital to develop the region, forcing Moscow to look internationally for investors.<sup>11</sup>

China has provided much of this international investment, buying stakes in hydrocarbon extraction ventures, funding infrastructure projects, and improving the region's telecommunication capabilities. These investments are a part of the 'Polar Silk Road', a branch of the larger Belt and Road Initiative, which China revealed in their 2018 Arctic strategy. The Polar Silk Road will be an important link from the resource rich Arctic to the energy demanding economies of East Asia, as well as an alternate route for goods to and from European markets which is able to avoid traditional choke points such as the Malacca Straits which could be made inaccessible in more difficult geo-political climates.<sup>12</sup> The benefits of using the NSR have already been recognized by COSCO (the largest state-owned shipping enterprise in China), who stated that 14 trips on the NSR (versus traditional routes) had saved a total of: 220 days of shipping time, 6948 tons of fuel, and \$9.36 million USD worth of costs.<sup>13</sup>

---

<sup>9</sup> (Melia, Haines and Hawkins 2016)

<sup>10</sup> (Schulze 2017)

<sup>11</sup> (Roseth 2014) p.850-854

<sup>12</sup> (Stronski and Ng 2018)

<sup>13</sup> (Grieger 2018) p.5 (Sun 2018)

Russia treats the NSR as internal waters while other actors, primarily the United States and the European Union (EU), insist it is an international waterway, putting the legality of fees and regulations into question. China meanwhile has shown itself willing to accept Russia's claims, keeping in step with assertions it has made on similar issues regarding navigation rights closer to its shores and insuring that its relationship with Moscow and the billions of dollars it has invested in the Arctic remains stable.<sup>14</sup>

### *North West Passage*

The once mythical NWP sought after by the likes of Henry Hudson and William Baffin has become a reality with climate change and receding ice. It crosses the American Arctic over Alaska before proceeding through a maze of islands in the Canadian Archipelago and exiting between Baffin Island and Greenland, making the NWP more intricate route to navigate than the NSR and a slightly longer journey to European ports. The route is best suited for shipping between North East Asia and the North Western Atlantic coast along the upper American and Canadian seaboard, however a study by Melia, Haines, and Hawkins (2016) showed that savings in time and distance by using the NWP versus the Panama Canal were relatively modest and the volume of shipping was likely to continue using the Panama route assuming efficient passage and short queues through the Canal. The NWP also has a shorter shipping season, about a month shorter than that of the NSR, though as climate change intensifies, this is becoming less of an issue as the route's period of navigability extends into late September.<sup>15</sup>

The NWP has not received the same level of development as has the NSR. Environmental concerns over resource extraction, distance from major population centers, the rights of native

---

<sup>14</sup> (Olesen 2017) p.10

<sup>15</sup> (Melia, Haines and Hawkins 2016)

peoples over their ancestral lands, and budgetary concerns have all slowed down efforts to improve infrastructure along the route by the United States and Canada. Signs however point towards a renewed interest in the route by both powers as they see the potential that the NWP will have both as a subject of national security and for their economies as climate change makes the route and the North American Arctic as a whole more accessible. Future development projects will focus on search and rescue capabilities, disaster response (especially related to oil spills), and enhancing law enforcement cooperation between the United States and Canada.<sup>16</sup>

Like the NSR, the NWP's status as either internal waters or an international strait is in question, and is an area where the United States and Canada, normally close partners on Arctic policy, diverge in their approach to the Arctic. The United States, in conjunction with states who conduct a large amount of international shipping assert that the NWP is an international strait according to Article 38 of the United Nations Convention on the Law of the Sea (UNCLOS), the premier legal document concerning international sea law, which would limit Canadian sovereignty over the route and open it to international regulation. Canada by contrast claims that the waters of the Canadian Archipelago have historically been internal waters and are exempt from the enforcement of Article 38 by Article 8(2) which covers pre-existing claims. Though the dispute over navigation rights between the close partners is not likely to spark conflict, it does have the possibility to cause disruptions in the future between the two as traffic on the NWP increases.<sup>17</sup>

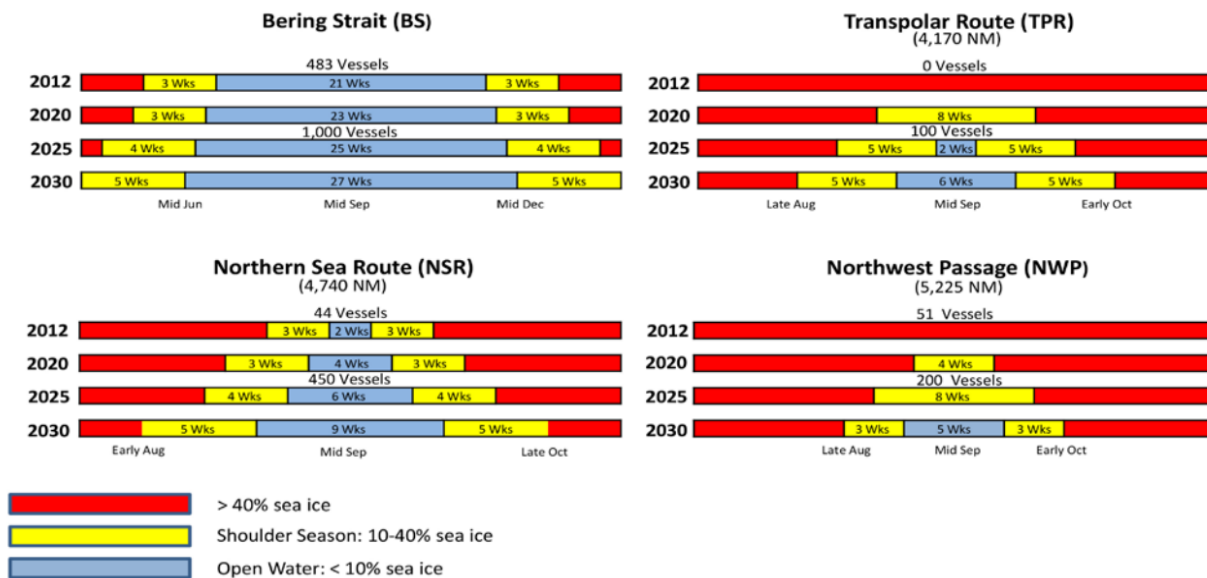
---

<sup>16</sup> (Lackenbauer and Huebert 2015) (Lajeunesse, Finding "Win-Win" China's Arctic Policy and what it Means for Canada 2018)

<sup>17</sup> (Lajeunesse, Finding "Win-Win" China's Arctic Policy and what it Means for Canada 2018) (James and James 2014) (Schulze 2017)

## Transpolar Sea Route

The TSR is currently the least accessible route of the three. The far north and polar region are still locked in ice for much of the year and are normally only navigable by large ice-breakers. Summer ice levels however have declined by over 40% since observations began via satellite in 1979 and are continuing to recede, allowing for more ambitious voyages yearly with ‘ice-free’ summers forecasted to begin as soon as 2030.<sup>18</sup> The route is particularly appealing to shipping enterprises as it is the fastest route from Asia to Europe and is able to avoid most territorial waters and regulations.<sup>19</sup> Though the TRS has enormous potential to revolutionize shipping when the waters begin to clear, the route will still pose many challenges to shippers, including snap changes in weather, group action by the Arctic littoral states to turn the region into a protective reserve, and unpredictable shipping seasons.<sup>20</sup>



Sea route accessibility forecast, United States Navy<sup>21</sup>

<sup>18</sup> (Wang and Overland 2012) (Humpert and Raspotnik, The Future of Arctic Shipping 2012)

<sup>19</sup> (Hong, China's Interests in the Arctic: Opportunities and Challenges 2018)

<sup>20</sup> (Melia, Haines and Hawkins 2016)

## Natural Resources

Natural resource extraction and exploitation has long been a cornerstone of Arctic development and activity. Many of the modern settlements in the Arctic region exist solely to support the countless oil rigs, gas fields, mining operations, and fisheries that make up the Arctic economy. Receding ice and warming temperatures have created new opportunities for resource enterprises to expand into areas previously too inhospitable for profitable ventures, generating a potential economic boon for Arctic states. These new opportunities come at a price however. Man-made disasters such as oil spills and gas leaks can cause irreparable damage to the delicate Arctic environment that is already under siege by climate change; overfishing by an armada of factory ships can leave Arctic waters and sea beds barren; native peoples can be forced off of their ancestral lands in order to make way for resource development projects; these problems have already begun to crop up and their instance is keeping pace with the shifting climate and progress of development.

### *Natural Gas and Oil*

Natural gas and oil are catalysts for a significant portion of the Arctic economy. The rigs and wells which extract the valuable hydrocarbons from the Earth are serviced by hundreds and thousands of workers, who are in turn supported by hundreds and thousands of workers who provide housing, consumer outlets, food, and various other services at remote settlements. The supplies for these remote settlements are shipped in by an army of truck drivers, bush pilots, and boat captains from larger population centers such as Anchorage, Arkhangelsk, and Yellowknife which are better connected to the rest of the world. This economic ecosystem is vulnerable to a

---

<sup>21</sup> (Chief of Naval Operations 2014)

number of outside factors such as the international oil & gas market<sup>22</sup>, environmental regulation<sup>23</sup>, infrastructure along the supply chain<sup>24</sup>, and the development of alternative energy sources.<sup>25</sup>

A 2008 United States Geological Service study assessed that the Arctic contains some 13% of the world's undiscovered oil and roughly 30% of its undiscovered gas, much of which lies offshore within the exclusive economic zone (EEZ) of Arctic littoral states. This does not include the already well explored and vast onshore resources that have been worked for decades above the Arctic Circle such as the shale and oil sands of North America and gas fields of Siberia.<sup>26</sup> Non-littoral states, are able to access these hydrocarbon resources only with the permission of the state which has sovereignty over the territory or EEZ and must negotiate their entry, often involving agreements to use local labor, exchange technology, infrastructure development, and profit sharing, among other concessions, which makes entry into Arctic hydrocarbon extraction viable for only a small number of deep-pocketed actors. China is the most proactive of the non-littoral actors involved in hydrocarbon extraction and has a number of high-value investments and projects, the most productive and prestigious of which are in Russia as part of the Polar Silk Road project, but also has significant holdings in American and Canadian ventures such as the future Alaska LNG project (via Sinopec Group, Bank of China, and CIC capitol) and Long Run Exploration's Alberta hydrocarbon production (via Sinoenergy).<sup>27</sup> China views these ventures as

---

<sup>22</sup> (R. Gosnell 2018)

<sup>23</sup> (Silverstein 2017)

<sup>24</sup> (Stronski and Ng 2018)

<sup>25</sup> (Lindholt and Glomsrod 2017) (Krupnick 2011)

<sup>26</sup> (Stronski and Ng 2018) p.26 (Stauffer 2008)

<sup>27</sup> (Passut 2018) (Dutta 2016)

a necessary diversification of energy sourcing to safeguard the flow of energy to its demanding economy which could be disrupted in times of geopolitical crisis.<sup>28</sup>

The United States' involvement in Arctic hydrocarbons began with the development of the Prudhoe Bay oil fields in Alaska in the late 1960s, since then, America's interest in exploiting these resources has waxed and waned based on political trends in the lower 48 and global oil markets. Currently, the Trump administration is attempting to renew oil and gas development in the far north by permitting prospecting and drilling in previously protected areas in Alaska's far north and overturning Obama era legislation which banned offshore oil and gas license leasing in the Arctic Ocean. These efforts by the Trump administration, which were part of his campaign platform, are unlikely to see any oil or gas production in untapped areas for at least a decade, due both to a lengthy approval process for such developments, and the congressional election of 2018 which saw the opposing Democratic Party take control of the House of Representatives.

President Trump was dealt another blow in late March 2019 when a federal judge in Alaska ruled that his executive order to expand offshore opportunities was unlawful, though this ruling is likely to be challenged.<sup>29</sup> Should the upcoming 2020 election bring in an entirely Democratic government there is likely to be a complete reversal, re-declaring a moratorium on any further development.<sup>30</sup>

The profitable exploitation of the Arctic's gas and oil reserves, especially those which lay offshore in newly ice-free areas, faces a number of challenges both from the environment of the Arctic, and from economic considerations. First, equipment necessary for drilling in the Arctic is

---

<sup>28</sup> (Lajeunesse, Finding "Win-Win" China's Arctic Policy and what it Means for Canada 2018) (Hsiung 2016) (The Associated Press 2017)

<sup>29</sup> (Davenport 2019)

<sup>30</sup> (Nilsson 2018) (Harball 2018)

extremely expensive compared to conventional rigs and wells due to the harsh environment which they must work; constant sub-zero temperatures, impacts from ice flows, and poor foundation conditions from the freeze-thaw cycle can cripple all but the most specialized machinery. Second, as described earlier, long supply chains and limited transportation options require drilling operations to pay extraordinary fees in order to keep downtime to a minimum. Third, the international oil and gas market is currently in a down-trend due to renewable energy developments and advances in shale and fracking technology, causing low prices and making many Arctic projects, particularly offshore drilling, unprofitable for the time being. Finally, political developments, mainly environmental stewardship, has caused a backlash against the “drill baby, drill” mindset, prompting politicians in many littoral states to limit the development of extraction operations.<sup>31</sup>



*The USGS survey estimates that over 87% of the Arctic’s gas and oil resources are located in seven Arctic basins<sup>32</sup>.*

<sup>31</sup> (US Energy Information Administration 2012)

<sup>32</sup> (King n.d.)



## *Mineral Resources*

Similar to oil and gas resources, the mineral resources of the Arctic are located either in the territory of Arctic states or in their EEZ, decreasing the likelihood of direct conflict over extraction rights. Also similar to oil and gas are the communities and supply chains which exist only to support the mining of mineral resources, creating a delicate economic ecosystem which can see the closing just one mine reverberate throughout a disproportionately large area.

Currently the global price for minerals remains low, dampening the intensity of development; a spike in prices or the discovery of a valuable lode of rare-earth minerals however could significantly increase activity in the sector.<sup>33</sup>

During this market lull, China has been proactive buying up the rights to existing mines and related real-estate in anticipation of more profitable times and to secure a diverse portfolio of available resources. Most visibly in Greenland where the global giant's weight is met with both adulation of a forthcoming economic boom, and a fear of straining already worn relations between the Greenlandic native government and their benefactors in Denmark.<sup>34</sup> Chinese state-owned enterprises (SOEs) and Chinese private enterprises align themselves with the policies and interests of the central government when developing their investment strategies in order to obtain financing from state banks and support from Beijing, giving them an advantage over competitors and inviting criticism from other Arctic actors of secret geostrategic agendas.<sup>35</sup>

The United States has mined its Alaskan territory for well over 100 years with mineral extraction comprising a sizable portion of the Alaskan economy. A study by the McDowell Group found that in 2016 mining exports represented 35% of the total exports from the state, a value of some

---

<sup>33</sup> (Olesen 2017) p.11

<sup>34</sup> (Bislev, Gad and Zeuthen 2018)

<sup>35</sup> (Jiang, China in Greenland: Companies, Governments, and Hidden Intentions? 2018)

\$1.5 billion. The same study found that payments to the state of Alaska (via taxes, licenses, etc.) totaled \$109 million dollars in 2017, not including an additional \$34 million paid to local governments.<sup>36</sup> This income is vital for the budget of a state with a comparatively small population and immense geographic size. As with the state's oil and gas industry, increasing concerns about the environmental impact of mining (especially open-pit mining) has created increasingly difficult hurdles which mining enterprises must jump to receive a license, however the Trump administration, as with other Republican administrations, has vowed to simplify the process to create more growth in the sector.<sup>37</sup> Alaska's native peoples have also begun to dispute potential mining operations. Tribal governments have brought forth a number of lawsuits in which they claim that the environmental impact from current and proposed mining operations disrupt their livelihoods by poisoning water supplies and damaging fisheries, among other grievances.<sup>38</sup>

### *Living Resources*

Living resources in the Arctic (primarily fish stocks) have been harvested by indigenous communities for millennia and had been, until recently, protected from industrial fishing by ice cover which made large scale operations unprofitable.<sup>39</sup> Now however the changing climate has created an ice-free season which opens new fishing grounds to fleets of factory ships that are able to catch and process more fish in one season than a traditional fishing community might be able to in a lifetime. Coupled with a predicted migration of fish stocks to higher latitudes, this

---

<sup>36</sup> (McDowell Group 2018)

<sup>37</sup> (J. Rosen 2017)

<sup>38</sup> (Kauffman 2019) (Y. Rosen 2019)

<sup>39</sup> (Fernandez, et al. 2016)

emerging resource has the potential to create conflict between ideological conservation and reality of increasing global food demands.<sup>40</sup>

For the time being, the voices of conservation have bested the lobbying efforts of a \$130 billion a year sea fishing industry. A 2018 agreement between the Arctic littoral states, the European Union, China, Japan, and South Korea banned fishing in the Arctic for the next 16 years while a battery of studies are carried out to better understand the region's delicate ecology and the impact industrial fishing might have on the region.<sup>41</sup> Whether the parties involved will agree on the findings and suggestions from these studies is unclear, as each has their own particular idea of conservation and conscientious resource management.

The living resources in the Arctic have the least potential to spark conflict in the region out of all of the natural resources which have been mentioned. The fish stocks presently in the region, and those which are expected to migrate north in the future, exist primarily within the EEZ of Arctic littoral states. These states have shown that ecological conservation is an important factor in their collective stewardship and along with forging multilateral moratoriums on fishing, have also implemented bans on fishing individually within their own EEZs.<sup>42</sup> Points of contention have a possibility of rising in the future between the Arctic littoral stewards and non-Arctic states, who's food security will be put into jeopardy from the ongoing explosion in the global population and a depletion of traditional fishing grounds. Illegal fishing activity is likely to, at least in the short term of this scenario, increase before littoral states become more adept at policing such activity in the region.<sup>43</sup>

---

<sup>40</sup> (Wegge 2015)

<sup>41</sup> (Food and Agriculture Organization of the United Nations 2018)

<sup>42</sup> (Nilsson 2018)

<sup>43</sup> (R. Gosnell 2018)

# **The Arctic Policy of The People’s Republic of China and the United States of America**

Two of the most important actors in the emerging Arctic are the United States of America and the People’s Republic of China. An in depth analysis of their motivations and policies in the Arctic can provide vital clues to not only their future actions and relations in the region, but also insight into the character of future actions on the global stage as their dynamics are set to dominate the 21<sup>st</sup> century. Their approaches to the Arctic reflect their places in the world-system: China, an emerging great power, takes an active approach with an ambitious Arctic policy that strives to put it in an advantageous position both economically and politically; the United States by contrast as a long-standing great power takes a conservative approach to the Arctic, refraining from international conventions such as UNCLOS which might constrain its ability to act unilaterally and uses the maintenance of the *status quo* as a guiding principal. These approaches however can have unintentional consequences for both actors which could disrupt their respective strategies for the region. China’s assertiveness and ambition could be perceived by the Arctic littoral states as intrusive and by non-littoral states as a power grab. The United States’ pursuit of maintaining a unilateral capacity could leave it isolated in Arctic affairs as other actors collaborate and solidify relations and roles through binding agreements.

## **Overview of Chinese Policy in Arctic**

The People’s Republic of China, despite having no territory in the Arctic, has become one of the most active players in the Arctic. Labeling itself as a “near-Arctic state”, China has used its weight on the international stage to insert itself into Arctic affairs, most notably seen in its campaign to gain observer status on the Arctic council which came to fruition in May 2013.

Diving head-first into the emerging Arctic realm underscores China's drive to be seen as an equal by other great powers and its move from regional power to a global contender.

Before January 2018, The Communist Party of China (CPC) had remained tight-lipped on its official stance on Arctic issues, leaving analysts to rely on the individual statements and actions of officials and bureaucratic bodies within the Chinese government to speculate the state's collective Arctic policy. Released as a white paper, *China's Arctic Policy*, the document aims to alleviate the apprehension many Arctic states have had over the growing Chinese presence in Arctic affairs as well as clarify China's goals and ambitions in the region as a near-Arctic state.<sup>44</sup> This white paper is still being intensely scrutinized by both policy makers and academia to forecast how its issuance will direct China's interactions with other Arctic actors, the analysis below aims to contribute to this wider discourse.

Laid out in section III of the white paper are the four basic principles of Chinese Arctic policy: respect, cooperation, win-win results, and sustainability. These principles and their explanation within the white paper highlight China's assertion that the Arctic should be open to the wider global community for development and fair-use under established international treaties such as the UN Charter and the United Nations Convention on the Law of the Sea (UNCLOS). These principals are defined in such a way to maximize China's legitimacy in the Arctic as a near-Arctic state while carefully avoiding wording which could be interpreted by other actors as ambitious or confrontational.<sup>45</sup>

Specific policies and positions outlined in the white paper address many concerns that Arctic states have expressed over China's increasing Arctic presence. The issues, which are presented

---

<sup>44</sup> (The State Council Information Office of the People's Republic of China 2018)

<sup>45</sup> (Hong, Examining the Implications of China's Arctic Policy White Paper 2018) p.1 (Lajeunesse, Finding "Win-Win" China's Arctic Policy and what it Means for Canada 2018) p.2

in section IV of the white paper, include scientific pursuits, addressing environmental issues, the use, exploitation, and development of Arctic resources (including shipping routes), participation in Arctic governance, and stability in the Arctic.

In regards to scientific pursuits, China asserts that it respects the Arctic states' exclusive jurisdiction in their territorial waters and waters under their national jurisdiction and urges cooperation in the name of scientific advancement, with this in mind, the policy stresses that all states have the freedom of scientific research on the high seas of the Arctic Ocean. China also states that it is committed to increasing its research capacity through further investment in research platforms, observation stations, support vessels, and scientific expeditions. China currently conducts scientific operations at the Yellow River Station on Svalbard and operates two ice-breaking research vessels, one of which, the Xuelong 2, was domestically built (though designed by Finnish engineering firm Aker Arctic).<sup>46</sup>

Environmentally, China takes a very active eco-friendly stance stating “China always gives top priority to resolving global environmental issues, earnestly fulfills its obligations under relevant treaties, and discharges its responsibility of environmental protection.” The white paper summarizes China's environmental goals as:

1- Protecting the environment through active monitoring and prevention of pollution, assessment of the impact ongoing activity has on the Arctic environment, and raising the environmental responsibility awareness of its citizens and enterprises.

2- Protecting the ecosystem through sustainable development and biodiversity protection.

---

<sup>46</sup> (Gady 2018)

3- Addressing climate change through emission reduction measures, climate study, and through participation in global climate agreements.

When addressing the utilization of Arctic resources, China's white paper emphasizes a respect for the sovereignty of Arctic states to develop and utilize resources within their areas of control as laid out in international treaties such as UNCLOS and the Spitsbergen (Svalbard) Treaty. China foresees an increase in Arctic shipping as climate change continues to open new trans-polar routes and maintains that established international law should govern their use. With these opening routes China hopes to build a "Polar Silk Road" and encourages parties to participate in the construction of infrastructure for regularized operation. Concerning fisheries and other living resources, China supports the establishment of an Arctic fisheries management or a similar organization based on UNCLOS that will ensure responsible fishing in what China predicts will become an important new fishing ground as fish stocks move northwards due to climate change. China's policy on Arctic governance shows again that it is trying to maximize its legitimacy in the Arctic to fulfill its goals. The white paper's section on governance is heavy with ideas of cooperation, multilateralism, and 'common interests' however between the lines it is not difficult to read China's true message; Arctic matters are global matters and governance of the Arctic by Arctic states should have limits.<sup>47</sup> The white paper's wording on participation in Arctic governance could be interpreted as a call by China to non-Arctic states to look to it for leadership in forming a bloc to insure that *all* interests in the region are addressed. Cooperation among non-Arctic states on Arctic matters has already begun, as was seen in the 'Trilateral High-level Dialogue on the Arctic' in April 2016 in Seoul.<sup>48</sup>

---

<sup>47</sup> (Grieger 2018) p.4

<sup>48</sup> (Hong, Examining the Implications of China's Arctic Policy White Paper 2018) p.6

Finally China addresses its vision of peace and stability in the Arctic which it views as the fundamental interest of all countries. Again, China stresses cooperation in the region and observance international agreements such as the UN Charter and UNCLOS when settling any disputes which may arise. The white paper also outlines a reinforcement of cooperation between China and other states in regards to search and rescue, emergency response, and information sharing in order to handle security challenges and maritime crimes. China's Arctic peace and security policy predictably is non-confrontational, its distance from the Arctic and its lack of power projection capabilities forces it to rely on and cooperate with other actors in order to ensure smooth operation in other areas of policy.

China treads carefully when working in the Arctic, it is well aware of its limitations and the weak starting position it has compared to other actors as well as the apprehension many actors feel towards them. Even its closest partner, Russia, was unwilling originally to grant China observer status in the Arctic Council.<sup>49</sup> Actors have cited China's poor environmental record, disrespect of human rights, and irresponsible development within its own borders as sources for their reluctance to accept China as an Arctic player.<sup>50</sup> The fragile nature of the region plays into this reluctance, as a single event can have irreparable repercussions.

In order to strengthen its overall standing, China has been using its most valuable soft power assets: its seemingly limitless investment capital and human resources. As particularly seen in Russia, China has grown its influence in the Arctic by increasing its economic footprint through investment in resource extraction projects. Immense multinational enterprises (both state owned and private) have led the way, with entities such as China National Petroleum Corporation

---

<sup>49</sup> (Stronski and Ng 2018) p.26

<sup>50</sup> (Lajeunesse, Finding "Win-Win" China's Arctic Policy and what it Means for Canada 2018) p.2,4



(CNPC) buying major share holdings in Arctic energy extractions such as the Yamal LNG company of which it has a 20% stake (with another 9.9% stake being held by the Silk Road Fund, making China the second largest shareholder after Russia), and Chinese General Nice Development Limited (CGNDL) who spent \$2.3 billion USD on developing coal and ore projects in Greenland.<sup>51</sup> Though resource commodity prices in recent years have been on a downtrend, such positioning by China gives it an advantage in the future as its economy's energy and raw material needs continue to grow and technology and climate change lower the cost of extraction. In conjunction with speculation on future commodity prices, diversifying its energy and resource extraction portfolio provides alternative sources for its hungry economy should a geo-political situation arise where traditional resources are shipped through/from (i.e. the Malacca Straights).<sup>52</sup>

There is speculation that Chinese investments in the Arctic have the potential to make major geopolitical shifts in the region. Greenland, for example, has been eyeing independence from Denmark for decades however its small population, limited infrastructure, and reliance on Danish funding of their budget makes such a move unlikely in the near future. Though attempting to avoid giving overt support of Greenlandic independence, analysts have noted that through strategic investments in the island's economy it is possible for China to place Greenland in a position of dependency.<sup>53</sup> This would give China a sovereign Arctic state and possible Arctic Council member under its thumb to not only rubber stamp development projects within its territory (military and economic), but also vote in line with Chinese Arctic strategy should it be

---

<sup>51</sup> (Sun 2018) p.10-12

<sup>52</sup> (Hsiung 2016) p.247-248 (Sun 2018) p.12

<sup>53</sup> (Jiang, China in Greenland: Companies, Governments, and Hidden Intentions? 2018)

given voting rights.<sup>54</sup> Greenlandic independence would also remove Denmark's legitimacy on the Arctic Council as Greenland constitutes its entire territory above the Arctic Circle. This would be a blow not only to Denmark who would cease to be an Arctic state, but also to the North Atlantic Treaty Organization (NATO) and the EU who Denmark, as a member of each, has historically aligned with in multi-national organizations. Further analysis on this subject is laid out in the section *The Balance of Power in the Arctic*.

China's Arctic policy is still emerging, and though the white paper may have clarified for analysts and policy makers what had until its release only been assumed, many questions still remain unanswered. China takes its self-adhered label of near-Arctic state to heart; it is, and will remain a major player in Arctic affairs. Its campaign to insert itself into Arctic affairs demonstrates both Beijing's resourcefulness to realize goals and its determinedness to be seen internationally as a global power-player.

### **Overview of American Policy in the Arctic**

Unlike China, the United States of America is an Arctic littoral state with over 150 years of activity in the far north and a voting member in the Arctic Council, chairing the organization from 2015-2017. The region has received renewed interest from Washington after a lull following the end of the Cold War as geo-political rivals China and Russia increase their military and commercial investments; however, compared to its rivals, the United States lags behind in Arctic development and preparedness and has been called by some observers a "reluctant Arctic power."

---

<sup>54</sup> (M. Martin 2018)

The foundation for the United States' strategy in the Arctic is the *National Strategy for the Arctic Region*, released in 2013 under President Barack Obama.<sup>55</sup> The strategy builds on three lines of 'effort':

1. Advancing United States Security Interests- This effort's main goal is to address a widespread criticism of US Arctic policy; the lack of adequate security infrastructure. Currently the United States has only two operational ice breakers, one fewer than China and 44 fewer than Russia according to the US Coast Guard, and no deep water ports in the Arctic Ocean.<sup>56</sup> According to many experts, the US will be unable to properly police its Arctic waters in the coming years should Arctic traffic increase as predicted, much less function in a sustained military engagement in the region.<sup>57</sup><sup>58</sup> The effort also describes a move to improve response capabilities to natural and man-made disasters which currently remain very limited even under ideal conditions.
2. Pursue Responsible Arctic Region Stewardship- This effort includes both environmental and scientific policies. Environmentally, the effort promotes "healthy, sustainable, and resilient ecosystems over the long term" and supports a "full range of ecosystem services". The strategy stresses responsible development of resources and the need for a deeper understanding of the Arctic's environmental mechanics to ensure proper management.

Scientifically the effort claims that US Arctic stewardship will be based on a 'holistic earth system approach' and says several key subcomponents have been identified that

---

<sup>55</sup> (National Strategy for the Arctic Region 2013)

<sup>56</sup> (Sopher 2018) (USGC Office of Waterways and Ocean Policy 2017)

<sup>57</sup> (Forsythe 2018)

<sup>58</sup> (Center for Strategic & International Studies 2018)

require more attention including sea-ice's role in climate change, biodiversity, and supporting Arctic peoples among others. Here as well is a goal to 'chart the Arctic' in order to make navigation safer and identify ecologically sensitive areas and reserves of natural resources.

3. Strengthen International Cooperation- 2013 strategy shows that multilateralism is likely to be the norm in the Arctic for the United States in the near future. Highlighted by its chairmanship of the Arctic Council from 2015-2017 (its second chairmanship overall) which saw the United States working with Arctic states and other interested parties on addressing climate issues in the Arctic as well as working towards more cooperation between states in areas like live resource management and search and rescue capabilities. Multi-lateral achievements during its chairmanship include a legally-binding agreement on enhancing Arctic scientific cooperation, assessing telecommunication needs in the Arctic, numerous ecological reports and updates, and arranging the first gathering of the foreign ministers from all eight Arctic Council states.<sup>59</sup>

Perhaps one of the most important pieces of the overall 2013 strategy is found in this subsection; a signaling that the United States wishes to accede to UNCLOS. The United States is one of only a hand full of states that has not ratified this globally recognized legislation, though it does adhere to many of the 'norms' adopted in the convention. The historical argument made mostly by Republicans in the Senate is that adoption of the convention would infringe on US sovereignty and against the national interest. An attempt to put the treaty forward to be debated and ratified in 2012 fell short when 34

---

<sup>59</sup> (Arctic Council 2018)

Republican senators signaled they would vote no on any legislation (treaties require a 2/3 majority in the US Senate for ratification).<sup>60</sup> This movement by the Obama administration could signal a renewed push for ratification by the Senate and the realization that the “freedom” that remaining outside of UNCLOS could cause problems in the future.

The US will approach the Arctic with four guiding principles according to the strategy; safeguarding peace and stability, making decisions using the best available information, consulting and coordinating with Alaskan natives, and pursuing innovative arrangements. These reiterate the US’s new multi-lateral approach and signal that the US sees relationship building and diplomacy as the way forward in the Arctic. It is reasonable to assume that the US’s multi-lateral and non-confrontational approach to the Arctic a result of both a failure of unilateralism since 2001 and the recognition of its own shortcomings in the region.

Aside from his national Arctic strategy, Obama also made environmental protection gains during his final days in office by announcing a moratorium on new oil and gas leasing in the Arctic in conjunction with Canadian Prime Minister Justin Trudeau. Obama cited the small share of US oil that comes from offshore Arctic production (.01%) and that the current oil market made any resource extraction in this sensitive area unnecessary.<sup>61</sup>

In December 2016 the Department of Defense (DoD) released a report to congress on its own strategy for the protection of national security interests in the Arctic which builds off of a 2013 DoD Arctic strategy and the 2013 strategy released by the White House.<sup>62</sup> The report echoes others from the US government which calls for cooperation in the Arctic and a desire for the

---

<sup>60</sup> (Gallo 2016) (Wong and Lengell 2012)

<sup>61</sup> (CBC 2016)

<sup>62</sup> (US Department of Defense 2016)

region to remain “secure and stable” as well as highlighting the steps taken to address challenges the US military will face as the region evolves due to climate change.

China is mentioned only once in the report, included in the list of Arctic Council observer states, however, its ally Russia is mentioned for its recommitment to the Arctic region. DoD writes that in light of Russia’s violation of Ukrainian, Georgian, and Moldavian territory, US forces will “continue investments in improved posture and capabilities when needed by the combatant commanders” as well as commenting that “[Russian investments] signal a recommitment to deterrence and to build a capability to defeat aggression against the United States and its allies” which hints at a growing tension felt by the DoD in the Arctic.

This tension is amplified by concerns the DoD has over US/NATO readiness in the Arctic. A number of key challenges have persisted, says the DoD, since their 2013 strategy, including: shortfalls in observations, remote sensing capabilities, ice prediction, weather forecasting, lack of navigational aids, challenges with high-latitude electronic communications, a limited inventory of ice-capable vessels and ground transportation, and infrastructure. These challenges are in conjunction with a possible over-extension by US forces, terms such as “fiscal realities” and “cost-effective” are frequently used in the report, and as has been noted by other analysts and the DoD itself, the Arctic has been repeatedly overlooked in favor of US commitments abroad in the Middle East and Asia.<sup>63</sup>

With the election of Donald Trump in 2016 and his administration’s “America first” policy many were anxious of a sharp turn in US Arctic policy towards reversing conservation policies and reopening protected areas to resource extraction was imminent, however, aside from

---

<sup>63</sup> (Wyland 2018)

backtracking on Obama's policies on resource extraction, the Trump administration has for the most part kept the status-quo concerning prior administration's Arctic policies. This could be due to a lack of personal interest in the Arctic (Trump has shown that he prefers to take on policy issues in more newsworthy areas), or perhaps the assessment by his administration that nothing could be gained by disrupting the relative calm and amicable environment in the Arctic.<sup>64</sup>

Barring an unlikely escalation of tension in the region, future US Arctic policy is likely to remain on the course set out during the Obama administration, with the exception of environmental policy which has already been altered by the Trump administration. For an overextended power like the United States, developments in a previously neglected theater, even if that theater is in their 'back yard', can be challenging to react to which makes multilateralism all the more important. Signs however do point to the US taking notice of the evolving situation in the Arctic, although its interest still remains low compared to other Arctic actors who have taken a much more proactive attitude.

---

<sup>64</sup> (Plouffe 2017) p.18-19

## **Arctic Partnerships**

The partnerships the United States and China have formed in the Arctic largely reflect the bedfellows they keep throughout the international system. The United States maintains close ties with its NATO allies in the Arctic, the majority of who are either voting members or observers on the Arctic Council, giving the United States a unique advantage in influencing Arctic governance. China meanwhile maintains a partnership with Russia and has created an extensive network of investments and bi-lateral agreements which effectively allow Beijing to ‘rent’ access to the Arctic. Analyzed below are how The United States and China interact with their Arctic powers and how these interactions shape their presence in the Arctic.

### **The United States and NATO**

Originally designed as a deterrent against Soviet aggression and influence during the Cold War, NATO has evolved beyond its original purpose into an organization which, in its own words, focuses on “utilizing collective defense, managing crisis situations and encouraging cooperative security”<sup>65</sup>. Of the 29 NATO member states, the United States, by a large margin, maintains largest military and spends an equally large sum annually on its defense budget, giving it a proportionately strong voice in NATO’s strategy and direction.<sup>66</sup> Though traditionally seen as the leader of the alliance, the United States does not dictate to NATO, militarily or politically. This is most evident in the Arctic where many member states’ approaches to the region differ, sometimes significantly, from that of the United States, putting allies at odds in a region of growing strategic importance. As will be shown below, the plurality of Arctic strategies in

---

<sup>65</sup> (North Atlantic Treaty Organization 2018)

<sup>66</sup> (NATO Public Diplomacy Division 2018)



NATO has the potential to bring about a crisis of unity in the coming years that could shift the balance of power in favor of other actors.

The root of this potential disunity is the organization's lack of a collective strategy for the Arctic.<sup>67</sup> This is a puzzling point when addressed alongside the fact that of the six Arctic littoral states, five are NATO members with the remaining state being the alliances historical rival, Russia. The answer lies in a familiar point of contention raised by NATO's largest Arctic member, Canada. Similar to arguments made in the Arctic Council, Canada is concerned that a larger role from NATO in the Arctic would increase the influence of non-Arctic states in the region, possibly putting aspects of Canadian sovereignty in jeopardy. Even bi-lateral security arrangements in the Arctic with the United States, Canada's closest ally politically and physically, have proved unpopular with the Canadian electorate, especially in the far north.<sup>68</sup>

It remains to be seen how Ottawa's position will be affected by the pace of sea ice melt in the Canadian Arctic. It is possible that with the predicted increase in traffic along the NWP that Canada will be forced to accept outside assistance policing the route and surrounding areas at the sacrifice of its policy of exclusivity in the region as its own coast guard and navy struggle to compensate for the increased area of responsibility.<sup>69</sup> This move would be welcomed by NATO allies, especially the United States, who has indicated that it is interested in pursuing holistic security preparations with Canada in the Arctic.<sup>70</sup> When coupled with an increasing trend among Canadians to favor social spending over defense spending, the likelihood of a shift in Canada's

---

<sup>67</sup> (Coffey and Kochis, Brussels NATO Summit 2018: Time to Get Serious About the Arctic 2018)

<sup>68</sup> (Lackenbauer and Huebert 2015) (Pezard 2018)

<sup>69</sup> (Leblanc 2018)

<sup>70</sup> (Plouffe 2017)

dogmatic interpretation of sovereignty in the Arctic increases, bringing about a mindset which could be more accepting of sharing the burden of securing its vast Arctic territory.<sup>71</sup>

The largest proponent of increased NATO action in the Arctic is Norway, a country which is not only a littoral state, but also shares a land border with Russia. The Norwegian Arctic forms a more integral part of their national economy than does any other NATO member's Arctic territory. One third of all Norwegian land lies above the Arctic circle, and with it 10% of the national population (roughly 500,000 inhabitants, more than all of the Arctic territory of all other NATO members combined), as well as many of the hydrocarbon, mineral, and living resources that have made Norway's economy one of the most prosperous in the world. Concerns have risen in Norway over Russia's military build-up in the Arctic, especially on the Kola Peninsula where the Russian Northern Fleet is based and where the two share their land border.<sup>72</sup> Despite comments from the Norwegian Defense Ministry downplaying the threat that Russia poses, Norway has worked to strengthen its position in the Arctic militarily.<sup>73</sup> Measures include the stationing of 1500 British and American troops in the North, increasing the national defense budget by 7.3% (4 billion NOK, over 450 million USD), and reinvesting in defensive infrastructure in Finnmark.<sup>74</sup>

An area where policy unity remains is in adherence to the collective defense spelled out in Article 5 of NATO's founding treaty. As the Arctic's strategic importance grows so does the attention it receives from NATO command. The alliance's presence in the Arctic waned after the end of the Cold War and only began to receive renewed interest after an increase in military

---

<sup>71</sup> (Armstrong 2018)

<sup>72</sup> (Bye and Osthagen 2018)

<sup>73</sup> (Agence France-Presse, France 24 2018)

<sup>74</sup> (High North News 2018) (Snow 2018) (Watts 2019)

activity from Russia in the late 2000s.<sup>75</sup> In 2018 this renewed interest culminated in the largest NATO exercise since the collapse of the Soviet Union. Named Trident Juncture, the two week exercise tested the readiness of NATO forces to respond to aggression in the Arctic with mock air, naval, and land operations staged in Norway, Sweden, and Finland, the latter two being active members of NATO's 'Partnership for Peace' program. Taking part in the exercise, which was called by NATO Secretary Jens Stoltenberg "ambitious and demanding", were some 50,000 personnel, 10,000 land vehicles, 65 naval vessels, and 250 aircraft from 31 participating countries.<sup>76</sup> A resounding success, Trident Juncture served not only to bolster the cohesiveness of NATO members in combat scenarios and test new strategies and equipment, but it also showed the effectiveness of NATO to outside actors, namely Russia, who has been conducting large scale military exercises aimed at the West over the past decade.<sup>77</sup> Despite the grand show of force during Trident Juncture and its successes, an enduring problem for NATO in the Arctic is a lack of manpower and specialized equipment permanently stationed in the theater compared to Russia.<sup>78</sup>

In the coming years NATO will be pressured to formulate a common position on the Arctic by a rapidly changing physical and political environment. Increases in traffic along Arctic maritime routes will put pressure on the alliance's naval capabilities to police previously inaccessible areas, which might be relieved only at the expense of dogmatic sovereignty. Saber rattling by a historical rival who is encouraged by its domineering position in the theater will need to be answered resolutely by all allies, not just those who are in immediate physical uncertainty. These

---

<sup>75</sup> (Horobets 2019)

<sup>76</sup> (Jozwiak 2018)

<sup>77</sup> (Garamone 2019) (Johnson 2018)

<sup>78</sup> (Deja 2016)

issues can be met head-on through compromise within the organization, through risk-sharing, and a through a continued reliance on multi-lateral cooperation overcoming common obstacles.

### **Chinese-Russian Partnership**

Relations between the historical iterations of China and Russia have morphed from imperial conquests throughout the centuries, to a brief common camaraderie after the Second World War, to an ideological split highlighted by border tensions, to its modern state of a cordial, if not stiff partnership.<sup>79</sup> The two often find themselves in de facto association due to Western sanctions and suspicions; Russia, more often than China, is the target of this Western indignation, most recently for its bellicose actions in Georgia and Ukraine. The sanctions placed on Russia over the last decade have severely affected its economy, causing it to become increasingly reliant on funding from China for development projects, especially in the Far East and Arctic. This has given China leverage over Russia, allowing it to extract favorable terms in projects which Beijing hopes to one day fold into its Belt and Road initiative. Most importantly for China's Arctic ambitions, this leverage has given it the opportunity to 'rent' access to the Arctic from Russia through strategic investment, shipping, mining, and research opportunities which otherwise might be out of reach. Cognizant of this developing dependency, Russia has, at least momentarily, put aside aspects its long held sovereignty fetish in order to meet the realities of its own shortcomings and position advantageously for the future. A mutual mistrust exists between the two just below the surface which, with a shift in global politics, could lead to a 21<sup>st</sup> century Sino-Russian split.<sup>80</sup>

---

<sup>79</sup> (Westad 2005) (Freeman 2017)

<sup>80</sup> (Stronski and Ng 2018)

At the core of Sino-Russian relations is a mutual challenge of the Western led world order, going so far as to issue a “Joint Declaration on a Multipolar World and the Establishment of a New World Order” before the United Nations General Assembly in 1997<sup>81</sup>, and their economic ties, which have become increasingly favorable towards China. <sup>82</sup>Both of these play an important role in the two’s Arctic interactions, with each other as much as they do with other actors. It is important to note that Russia and China’s partnership is not as cohesive as that of the United States and NATO, their relationship is more pragmatic in nature with each partner insuring that it is able to maintain flexibility in its own foreign, domestic, and security policy. As well, their partnership is not inherently military oriented, as NATO is, though they do maintain military ties through arms sales, mutual training, and broad scope planning; these links also are pragmatic in nature and allow both China and Russia to remain free from any obligatory entanglements the other might face.<sup>83</sup>

The partnership’s position against the Western led world order is one of the most important drivers for their cooperation in the Arctic. For China, its opposition to the modern world order, though not as overt as that of Russia, has led to confrontations over Taiwan and the South China Sea, both of which sees Beijing at odds not only the West, but with its neighbors in East and South East Asia as well. These flashpoints have the potential to bring China into a naval conflict which it’s growing People’s Liberation Army Navy (PLAN) is not yet ready to handle.<sup>84</sup> One of the PLAN’s key objectives during such a conflict would be to insure the flow of energy resources and trade goods through choke points such as The Malacca Straits and the Formosa Strait, tasks which currently its blue-water navy would be unable to fulfill. This “Malacca

---

<sup>81</sup> (Lavrov and Wang 1997)

<sup>82</sup> (Stronski and Ng 2018) (Freeman 2017)

<sup>83</sup> (Roseth 2014)

<sup>84</sup> (Livingston and O'Hanlon 2108)

Dilemma” has prompted China to look for alternative routes and alternative energy resources which it has found in the Russian Arctic and in the NSR.<sup>85</sup> Here China would be able to source its energy needs from a non-hostile entity and ship and receive goods, including energy resources, through the Russian controlled sea passage, bypassing chokepoints. Planned pipelines from Russian gas fields to Chinese storage facilities will further ease any strain put on the Chinese energy infrastructure, should both parties be co-belligerents in a conflict with the United States who would likely be able to disrupt traffic through the Bering Strait, thus closing off thru traffic on the NSR.<sup>86</sup>

Though they are not yet able to replace traditional sources and routes for China, the gas fields in the Arctic have already begun to deliver shipments of liquefied natural gas (LNG), most notably from the Yamal LNG port which was heavily financed by the Chinese Government.<sup>87</sup> Russia, in turn, sees the hungry Chinese energy markets as an opportunity to not only increase government revenues, but also as a way to diversify its customer base away from Europe, with whom its relationship has presently been strained by Russian aggressions in Ukraine.<sup>88</sup> China’s ambitious Belt and Road initiative however could disrupt Russian plans to shift towards Asian energy markets. Central Asian states, formerly under Russia’s thumb, are eager to receive Chinese investments in return for access to their LNG production as well as for the opportunity to create infrastructure that does not require shipment via the Russian pipeline network.<sup>89</sup> China’s interest in Central Asia, a region formerly thought of as firmly within Russia’s sphere of influence, could

---

<sup>85</sup> (Hamzah 2017)

<sup>86</sup> (Paraskova 2018) (Gazprom 2019)

<sup>87</sup> (Duran 2018)

<sup>88</sup> (Roseth 2014)

<sup>89</sup> (Stronski and Ng 2018)

hamper relations between the two in coming years, possibly affecting the status of energy shipments from the Arctic.

The potential confrontation between the two partners over Central Asia is a symptom of a larger underlying issue; Russia is wary of China's growing power.<sup>90</sup> Economically, China dwarfs its northern neighbor with a 2017 GDP(PPP) estimated at \$23.21 trillion, an estimated work force of over 800 million, and year over year growth averaging 7.9% from 2010 to 2017. Comparatively, Russia's GDP(PPP) is a modest \$4.01 trillion, its work force hovers around 76 million, and volatile growth averaging 1.97% during the same period. China's military budget also has exceeded that of Russia since 1998, growing to a \$161.9 billion gap in 2017.<sup>91</sup><sup>92</sup> The latter reflects China's growing domestic arms industry, which under directive from Beijing, is moving towards making the People's Liberation Army (PLA) self-sufficient and competitive with Western forces, and with the PLA's old supplier, Russia.<sup>93</sup> Adding to Russian shortcomings against China is the distribution of Russian power in its own territory. Russia's Far East has historically been under populated and under developed, and since the collapse of the Soviet Union in 1991 has been increasingly open to outside influences and illegal migration from China. A large portion of the Russian Far East had until the 1800s been Chinese territory. The signing of two 18<sup>th</sup> century treaties ceding large amounts of territory, The Aigun Treaty and The Beijing Convention, are still viewed negatively in China as they were signed away under duress by the Qing Dynasty and though at peace now, a brief border conflict over the same region only 50 years ago remains fresh in the minds of many.<sup>94</sup>

---

<sup>90</sup> (Pezard 2018)

<sup>91</sup> (The World Bank 2019)

<sup>92</sup> (Central Intelligence Agency 2019)

<sup>93</sup> (Nouwens and Beraud-Sudreau 2018)

<sup>94</sup> (Tselichtchev 2017)

Despite the potential for conflict between the two, in the near future a breakdown is unlikely for two reasons; Russia's economic and military overextension, and China's Belt and Road project. Over the past decade Russia has attempted to spread its influence and boost its international standing through a number of international ventures whose questionable success and long-term commitment has left the state overextended and sanctioned by the West. Coupled with long-standing economic problems and low oil prices, the strain these ventures put on Russia's ability to act on the international stage has been multiplied.<sup>95</sup> The stability which China brings to Russia economically is vital. China was Russia's largest import (21.2%) and export (10.9%) partner in 2017, as well as its primary source of foreign investment for underdeveloped regions like the Arctic.<sup>96</sup> Importantly as well, China is the only international actor of any significant power that Russia can rely on politically to not bandwagon with the West in times of political contention. A confrontation with China, even if brief, would send the Russian economy into a spiral reminiscent of the economic turmoil Russia experienced at the end of the 20<sup>th</sup> century. This turmoil could, as some authors have speculated, lead to a 'crumbling around the edges' of the Russian Federation, opening an opportunity for China in the Far East to expand its influence, reclaim lost territory or beyond.<sup>97</sup> The above, among other realities that Russia currently faces, would make any aggressive action, political or otherwise, against China suicidal for Moscow who is already struggling to maintain a façade of stability.

China, in turn, is also unlikely to instigate confrontation with Russia due to the access that Russia provides to China in the Arctic and other regions which are vital for its ambitious Belt and Road project. As mentioned earlier, this project is seen by China as a way to not only expand its

---

<sup>95</sup> (Russell 2018)

<sup>96</sup> (Central Intelligence Agency 2019) (Stronski and Ng 2018)

<sup>97</sup> (Fedorov 2017)



economic reach, but also as a way to spread its influence across Eurasia. Focusing on the Arctic, the Polar Silk Road as was laid out in China's Arctic White Paper requires cooperation between Beijing and Moscow in order for the project to be realized.<sup>98</sup> This dependency is twofold. In order for China to expand investment projects in the Arctic it needs access to the Arctic Sea coast which, despite their self-labeling as a 'near-Arctic state', China's nearest ocean outlet is at roughly the same latitude as Lisbon. This has prompted China to 'rent' its access to the Arctic through investments in Russian development projects, allowing it to move forward with laying the foundation for the Polar Silk Road.<sup>99</sup> Secondly, a major aspect of the Polar Silk Road's potential success relies on access to the NSR and smooth, predictable shipping along the route. Already the route's primary non-Russian operator (mostly for shipping LNG from Yamal and other facilities), China's polar ambitions hinge on remaining in the good graces of Russia who undisputedly controls the route and is investing heavily in military stations and equipment along the NSR to further strengthen its hold.<sup>100</sup> The PLAN currently and likely in the future will be unable to force an issue of access along the NSR, as the bulk of Russia's naval forces are stationed in the region, along with having a technical superiority and experience operating in the harsh Arctic climate.

The partnership between China and Russia is far from affectionate, though this type of pragmatic relationship seems to be one which both are comfortable with. China and Russia both offer what the other needs and have used this reciprocal indebtedness to bridge what might otherwise be a considerable distance in relations. This plays especially true in the Arctic where Chinese funds are able to develop Russian assets and Russia's strategic geography allows China to go forward

---

<sup>98</sup> (The State Council Information Office of the People's Republic of China 2018)

<sup>99</sup> (Stronski and Ng 2018)

<sup>100</sup> (Horobets 2019) (Humpert, Russia's Northern Sea Route sees record cargo volume in 2018 2019)

with its ambitious projects. Their mutual distrust however could eventually bring about critical misunderstandings which could not only disrupt the partnership, but could bring the two powers into conflict, as could Russia's animosity towards China's growing power and want of international and domestic prestige.

### **Actors and Blocs**

China and the United States' actions in the Arctic cannot be viewed in a vacuum; while they are both major components in the Arctic balance of power, they are not its only two participants. The actions they take as members of their respective partnerships can have the same impact on the balance of power as their unilateral actions. It could be argued as well that the two's level of influence over the Arctic could be achieved only through the conjunctive actions and support of their partners. China for example has no direct Arctic access and must cooperate with Russia through its investments in the far north to press forward with its Polar Silk Road project and hydrocarbon extraction efforts. The United States in turn relies on its NATO partners, especially those with Arctic access, to maintain vigilance and stewardship in the theater while it neglects its own Arctic infrastructure and presence in favor of other geopolitical ventures.

This raises the question: who is really driving the balance of power in the Arctic; individual actors like China and the United States, or the two power blocs, NATO and Sino-Russia? Presently there is no definitive answer, the Arctic as a geopolitical theater is still unpredictably developing, due to both the unforeseeable effects of continued climate change and to the actors still 'filling out' their respective roles in the balance. While this work focuses primarily on the United States and China's impact on the balance of power in the Arctic, it would also like to draw attention to the growing importance of the two competing blocs whose relations dynamics

in this century will reverberate across the globe. Further research is warranted on the subject, not only due to the unique phenomena of a virgin theater developing a new balance of power in the full light of history, but also because of the share of global power the combine members of these blocs hold has the potential to fundamentally shift the power structure in the world-system.

## The Balance of Power in the Arctic

As has been shown above, the Arctic is an emerging area in international relations whose complexity and depth is comparable to any other theater. Analysis of this evolving dynamic is best looked at through a realist lens which is able to examine the intricate balance of power that has developed in the Arctic between the most powerful states in the modern world-system.

Balance of power as a concept is one of the oldest political ideas still in use by both analysts and statesmen to interpret the dynamic affairs of the world-system. There is no exact definition for the concept, instead a number of different interpretations over the centuries have created a framework by which powers place themselves and others in order to create a model of political reality. Indeed many thinkers have argued that attempting to force one definition of balance of power is counter-productive as the concept is inherently flexible and in fact must be in order to react to the ever-changing state of the system.<sup>101</sup> Diana Zinnes laid out what she believed to be the parameters of the balance of power concept after an exhaustive examination of attempts to define it over the centuries:

*“A ‘balance of power’ involves a particular distribution of power among the states of the system such as that no single state and no existing alliance has an ‘overwhelming’ or ‘preponderant’ amount of power” ... “In effect, any distribution is permissible as long as the power of each unit – state or alliance of states- in the system is less than the combined power of all the remaining units.”<sup>102</sup>*

Understanding what is meant by balance of power and analyzing how it is used in practice are similar in that there are a number of different theories as to how actors deliberately or

---

<sup>101</sup> (Sheehan 1996) p.1-2

<sup>102</sup> (Zinnes 1967) p.272

unintentionally influence the balance. A.F.K. Organski identified six methods in his 1968 work *World Politics* in which states attempt to maintain a balance of power that is, according to Organski and others, the natural tendency of an anarchic system where each actor attempts to maximize their own place in the balance:

*“More exactly, they can arm, seize territory, set up buffer zones, form alliances, intervene in the internal affairs of other nations, or divide and conquer.”*<sup>103</sup>

These six in turn were grouped into two categories by Organski:

*“Whenever the weight of power on one side of the scale is growing too heavy, the nations on the opposite side have two alternatives open to them: they can act to increase their own power, or they can attempt to diminish that of their adversaries.”*<sup>104</sup>

Organski’s particular methodology for balance of power analysis is preferable for analysis of an emerging theater such as the Arctic; the concepts are broad enough to encompass new ideas or events which might be unique to the theater yet are still precise enough to keep analysis grounded in reality and does not attempt to exaggerate any tenets of the balance of power concept.

The two actors which are the focus of this thesis, the United States and China, play integral parts in this balance and are essential components in opposing blocs who within themselves show aspects of a balance of power dynamic. Laid out below are key features of the contemporary

---

<sup>103</sup> (A. Organski 1968) p.276

<sup>104</sup> (A. Organski 1968) p.276

Arctic balance of power as examined through Organski's framework and using Zinnes' liberal definition of the concept: Sino-Russian partnership of convenience, the United States' reluctance as an Arctic leader, the exclusivity of membership in the Arctic Council, China's 'rental' of Arctic access, and the unpredictable impact of climate change.

### *Sino-Russian Partnership of Convenience*

The Sino-Russian partnership, as discussed in the section *Arctic Partners*, is based on reciprocal assistance overcoming one another's shortcomings and an aversion to a Western dominated international system. Russia, whose poor economic performance has hampered the development of its vast Arctic potential, receives investment capital from China, who, in turn, receives access to the Arctic through those investments in a 'rental' type agreement which is essential for its ambitious Polar Silk Road plan.<sup>105</sup> Organski wrote that the making and unmaking of alliances is the major mechanism through which the balance of power is maintained as states try to add the strengths of allies to mitigate their own shortcomings; much as in China and Russia's partnership is used by each to improve its standing internationally in a way that it would be unable to alone.<sup>106</sup> In the Arctic, this translates into a partnership which has allowed both to not only increase their own power, but to diminish the power of their mutual rival, the West.

How the partnership increases both China and Russia's strength is more apparent than how it weakens the West. Both actors' economies benefit from the fruit of Chinese investments, likewise both benefit from the increased development of the NSR which the investments facilitate; Russia's strategic placement on the NSR will increase its prestige and importance in the future and China's manufacturing sector will receive a much needed edge over emerging

---

<sup>105</sup> (Freeman 2017)

<sup>106</sup> (Organski and Kugler 1980) p.16

economic centers in southern Asia by cutting shipping costs, improving 'just-in-time' manufacturing efficiency, and diversifying its energy supply chain. The fruits of this partnership which both enjoy could not be achieved unilaterally, and it is here where the West is weakened.

Both China and Russia have experienced difficulty in the Western dominated international system. Russia's economy has been wracked by sanctions intended to dissuade its bellicose foreign policy towards former SSRs, especially after annexation of Crimea in 2014 while China's economy has become the focus of a trade war with the United States and increased saber rattling in the South China Sea has begun to bring the ire of other Pacific powers. Their partnership in the Arctic has found a work-around to problems such as Russia's lack of funding opportunities from Western controlled financial institutions and China's fears of the West choking off energy supplies. The work-around weakens the power which the West might wield over the two and thus diminishes opportunities for coercion. This is most important in the Arctic, a region which is critical for the future of both countries and where the Sino-Russian partnership will have a distinct advantage over the West in the coming years as shipping season for the NSR lengthens and a shifting climate facilitates infrastructure and industry development in the Far North.

As noted in *Arctic Partnerships*, the Sino-Russian partnership is not as warm as one might expect from such an important relationship, especially when taking into account the few other offers of friendship from other world powers. The two have a long history of animosity and even a shooting war at the height of the Sino-Soviet split, this, coupled with Russia's unease of China's growing power begs the questions: what the partnership will look like in the future, how long will it last? According to balance of power writer Michael Sheehan, the partnership, as should all alliances, be seen as only a temporary arrangement which will one day outlive its

original purpose and either evolve to meet a new, mutual objective or break and see both look for new, more advantageous relationships elsewhere.<sup>107</sup> While this might not affect the contemporary balance of power in the Arctic, as both parties continue to benefit from their association, a break in the Sino-Russian partnership could have systemic level effects that would dramatically alter the balance of power.

Presently the Sino-Russian partnership is better suited to meet the fast approaching Arctic future than is the United States and NATO, giving it an advantage in region's contemporary balance of power. Its strategic synergy compared to NATO's plurality of strategies as well as control over the shorter and more navigable NSR (compared to NATO's control over the NWP) will perpetuate this advantage. The advantage will wane however in the future as the TPR becomes a more viable route, allowing shipping to bypass the NSR. This will not completely alleviate the partnership's advantage though, as the NSR, unlike the TPR which will continue to be closed for a sizable portion of the year due to ice, has the possibility to be navigable for most of the year, and possibly year round thanks to the large icebreaker fleets Russia and China are building.

### *The United States' Reluctance as an Arctic Leader*

The United States has largely overlooked the Arctic as a strategic area since the end of the Cold War which, as noted by both civil society and structures within the government, is handicapping the country from asserting itself in the developing balance of power.<sup>108</sup> As discussed in the section covering the United States' Arctic policy, the lack of attention the region receives is due to an overextension of government's resources elsewhere, such as in the Middle East and Asia.<sup>109</sup>

---

<sup>107</sup> (Sheehan 1996) p.57

<sup>108</sup> (Coffey and Kochis, Brussels NATO Summit 2018: Time to Get Serious About the Arctic 2018) (US Department of Defense 2016)

<sup>109</sup> (Forsythe 2018)



During the Obama administration the Arctic appeared once again on the government's policy agenda, however efforts made by the administration were mainly focused on stewardship rather than making any significant shifts in security policy; these environmentally focused efforts are currently in the line of sight of the Trump presidency, which is striving to remove environmental protection policies to promote energy development.<sup>110</sup> The United States' lack of direction has also had an effect on the NATO alliance, whose member states' plurality of Arctic policies, and even infighting over issues such as access and navigation have weakened the bloc's overall presence in the region, something which could have been avoided had the United States used its role as de-facto leader of the alliance to encourage cooperation among members in forming a unified stance. A final hindrance to the United States' ability to lead in the Arctic is its unwillingness to ratify UNCLOS, a legal convention embraced by all other Arctic actors which asserts common legal grounding for interactions on the World's oceans. Despite the convention's importance as signaled by both the Department of Defense and the Executive branch within the last decade, legislators in Congress refuse to allow the country to accede to UNCLOS, citing a need to maintain the ability to act unilaterally in oceanic affairs.<sup>111</sup>

The Arctic will be a critical area for international relations in the 21<sup>st</sup> century, and the United States must assert itself in the region or risk weakening not only its own position in the balance of power, but that of NATO as well. A strong NATO in the Arctic is a necessary balancing action to the Sino-Russian partnership whose contemporary advantages are at risk of upsetting the balance of power, creating a scenario which according to Organski's work could have detrimental consequences on stability, increasing the likelihood of aggression by other actors to

---

<sup>110</sup> (Plouffe 2017)

<sup>111</sup> (Nilsson 2018) p.104 (Chief of Naval Operations 2014) p.13 (National Strategy for the Arctic Region 2013) p.9

reassert the balance to a more neutral standing.<sup>112</sup> The leadership role which the United States can offer NATO cannot be matched by any one other member, politically or strategically, which is why it is critical for Washington to reassess its priorities in the Arctic, an area of more strategic significance in this century than continuing efforts of asserting authority in the Middle East. Two of Organski's methods for maintaining a balance of power could be viable options for the United States to improve its position in the Arctic: armament, and divide and conquer.

The first and more practical option of the two, armament, would see the United States build up its strategic forces in the Arctic and develop weaponry and platforms suited to both the harsh environment and the realities of Arctic warfare. The DoD stated in their 2016 Arctic strategy that:

*“Key challenges identified in the 2013 Strategy persist in 2016: shortfalls in observations, remote sensing capabilities, ice prediction, and weather forecasting; lack of navigational aids; challenges in high-latitude electronic communications; and limited inventory of ice-capable vessels and ground transportation; and infrastructure”<sup>113</sup>*

This shows that the United States, or at least its military structure, is aware of its weak standing in the Arctic, not only in day-to-day operations, but strategically against other Arctic powers, namely Russia, whose military investment and capabilities in the Arctic are dwarfing that of the United States despite a large gap in the size of the two's military budgets.<sup>114</sup>

The United States would also need to encourage armament programs among NATO member states, a task which would likely prove difficult due to many of the member state's aversion to increasing military budgets. Focus could be given to the littoral member states in the form of aid

---

<sup>112</sup> (A. Organski 1968) p.280-281

<sup>113</sup> (US Department of Defense 2016) p.13

<sup>114</sup> (Horobets 2019)

and joint-force installations in order to lessen the burden on smaller economies which might not be able to handle such a leap in spending. As covered earlier however, increased NATO activity might be unwelcome in Canada, the largest Arctic member state, and thus could hinder efforts to address an increased threat by the Sino-Russian partnership, still though, increased attention could be given to Greenland, Iceland, and Norway to mitigate some of the effects of Canada's lack of cooperation.

Organski cited armament as being the quickest and most visible way of either gaining power in a balance, either to catch up with rivals or to achieve an advantage. Organski goes on however to say that such a strategy by a state runs the risk of creating an 'explosive' balance (more commonly called an arms race) which could cause a tension in the system which will eventually break under the pressure of rivals to out-do one another.<sup>115</sup> An Arctic arms race is not out of the question, the power blocs are all too familiar with the concept. China, despite its distance from the Arctic, is putting its hat in the ring by developing its own Arctic capabilities including ice-capable vessels and ice-prediction technology which could be easily, should the need arise, repurposed, as well as looking at smaller Arctic actors who would base Chinese Arctic assets in return for access to China's deep development coffers.<sup>116</sup>

The second option for the United States, to divide and conquer, or more precisely to break the Sino-Russian partnership, would be more difficult than a unilateral rearmament strategy however could have a much larger payoff if executed correctly and fundamentally shift the balance of power in the Arctic. Standing in the way of this strategy is how both sides of the Sino-Russian partnership view the other; a partner of convenience with few (if any) ideological strings

---

<sup>115</sup> (A. Organski 1968) p.276

<sup>116</sup> (Hong, China's Interests in the Arctic: Opportunities and Challenges 2018) (Jiang, China in Greenland: Companies, Governments, and Hidden Intentions? 2018)

attached. Neither China nor Russia advocates for the other to adopt the morals and norms by which they run their individual governments and does not put conditions for such when interacting with one another. The United States meanwhile often advocates (abet selectively) for partnering states to model their own governance after the United States', chiefly as democratic, free-market societies, conditions which are in contrast to the way both China and Russia govern. Moscow does not give Beijing access to the Arctic on condition that they adopt managed-democratic values, nor does Beijing condition its investments on Moscow reverting to Communism. The Sino-Russian partnership also addresses the mutual perceived threat of the West by which their partnership would counterbalance the weight of NATO which neither is strong enough internationally to deal with alone.<sup>117</sup>

China is the more likely of the two to break the partnerships and should be the focus of any efforts by the United States with the intention of division. China's anti-West ideology is not as dogmatic as it is in Russia, as well, China's ambitions center on economic gains internationally (such as Belt and Road) which are more easily achieved through cooperation rather than on increasing prestige and prosperity through militarism as seen in Russia. It should be noted that even if a split does occur, it is unlikely that China would then turn to embrace the United States or NATO in the Arctic, they would only break with Russia if they could perceive themselves as being on equal-footing with the United States and retain access to the Arctic to continue forward with their Polar Silk Road.<sup>118</sup> Consequentially from a break in the partnership, China might be pushed to look for Arctic access in a NATO state which would bring about a number of other problems which might outweigh the potential benefits from a split, as some of the NATO littoral

---

<sup>117</sup> (Sheehan 1996) p.56

<sup>118</sup> (Dobbins, Shatz and Wyne 2018)

states' comparatively small economies would make a handsome offer from China too good to refuse.

Furthermore, a split might be impossible should China's investments and trade into Russia's economy at large make Moscow dependent on staying within Beijing's good graces, a scenario which is looking increasingly likely. In this case the only option left to the United States would be to double-down on rearmament in the Arctic and hope to avoid a perpetual arms race.

### *The Arctic Council*

The Arctic Council is an important factor in the Arctic balance of power as a forum for Arctic actors to address common issues, voice grievances, and where solutions to both can be proposed. Decisions by the council are non-binding and not all participants have voting privileges, which are restricted to the eight Arctic states. Importantly, the council does not table security discussions and instead focuses “on issues of sustainable development and environmental protection in the Arctic.”<sup>119</sup> Despite being one of the least well known intergovernmental organizations, the Arctic Council is one of the most important political bodies in the modern world. This point is exemplified by taking note of other organizations and associations which Arctic Council members and observer states take part in: all five permanent members of the United Nations Security Council, all members of the Group of Seven, 11 members of the Group of 20, 10 members of the EU, nine members of the NATO and three members of the Shanghai Cooperation Organization. States active in the Arctic Council also account for roughly three

---

<sup>119</sup> (Arctic Council 2015)

quarters of world GDP, 70% of global defense spending, and over half of the global population.<sup>120</sup>

In a theater such as the Arctic where zero-sum realities are more evident than in other parts of the world, the Arctic Council has played perhaps the most significant role in keeping tensions at tolerable levels by insuring the issues addressed are solely within the scope of the Arctic.<sup>121</sup> This is most clearly seen in the cooperation between NATO members and Russia in the Arctic Council where elsewhere the relationship is marred by the ongoing Ukraine Crisis. All parties involved in the Arctic Council appear to adhere to the belief that the Arctic should not be influenced by outside affairs which might hinder any collective progress on not only developing the vast, virgin region, but also in keeping the region free from any conflict which might disrupt the status-quo which presently benefits all.<sup>122</sup>

An important aspect of the Arctic Council is its exclusivity; only states which have territory above the Arctic Circle may have voting rights, all others are relegated to a non-voting observer status, which in itself must be approved by the unanimous consensus of the voting members and is renewed every four years. The aim of this exclusivity is to keep the Arctic and its governance ‘in house’ and avoid having outside influences interfere with Arctic stewardship. Would-be observer states must comply with seven key criteria agreed to in 2011 by the voting members which highlight their monopoly over the Arctic:

- Accept and support the objectives of the Arctic Council defined in the Ottawa declaration.
- Recognize Arctic States' sovereignty, sovereign rights and jurisdiction in the Arctic.

---

<sup>120</sup> (Gramer 2017) (McCarthy 2017)

<sup>121</sup> (Breum, Why Russia is likely to remain cooperative in the Arctic 2018)

<sup>122</sup> (Olesen 2017) p.6

- Recognize that an extensive legal framework applies to the Arctic Ocean including, notably, the Law of the Sea, and that this framework provides a solid foundation for responsible management of this ocean.
- Respect the values, interests, culture and traditions of Arctic indigenous peoples and other Arctic inhabitants.
- Have demonstrated a political willingness as well as financial ability to contribute to the work of the Permanent Participants and other Arctic indigenous peoples.
- Have demonstrated their Arctic interests and expertise relevant to the work of the Arctic Council.
- Have demonstrated a concrete interest and ability to support the work of the Arctic Council, including through partnerships with member states and Permanent Participants bringing Arctic concerns to global decision making bodies.<sup>123</sup>

Even allies are kept at arms-length in the Arctic Council if they lie outside of the Arctic Circle. Russia was initially reluctant to accept China into the Council as an observer, citing potential disputes over access rights to the NSR, while Canada voiced skepticism over the admittance of the EU, claiming letting in new observers, especially one as complex as the EU, might reduce the efficiency of the Council.<sup>124</sup>

The Arctic states' gatekeeping in the Arctic Council could be interpreted as forming a buffer zone between the haves and the have-nots; ensuring that the balance is not tested by states who do not share the commonality of Arctic geography. Though Organski's buffer zone was envisioned as a physical state sandwiched between competing powers, the divide between voting

---

<sup>123</sup> (Arctic Council 2015)

<sup>124</sup> (Parello-Plesner 2013) (Pezard 2018)

members and observer states on the Arctic council shares a similar purpose by creating a political barrier which prevents outside interests from creating blocs or friction between the Arctic states which might spark conflict.<sup>125</sup> This action diminishes the power of all non-Arctic actors while significantly boosting the power held by voting members who are able to effectively set the tone and schedule of Arctic affairs while observers are able to at most lodge strongly worded letters of complaint to the council.

The power monopoly is likely to have significant staying power in Arctic affairs. Observers such as China and India, though powerful in their own right, have little ability, politically or physically, to force any issue of ‘non-Arctic rights’ with the voting members of the Arctic Council who, as stated above, consist of the most powerful states in today’s system.

#### *China’s Arctic ‘Rental’ and Ambitions*

China’s self-labeling as a ‘near-Arctic state’ shows its ambitions towards a region which could help revitalize not only the slowing Chinese economy, but also increase its international power and prestige by being at the forefront of Arctic development. The Chinese government has outlined a ‘Polar Silk Road’ project in their recent Arctic white paper to spearhead this development effort. They have also invested heavily in Arctic infrastructure and resource extraction projects with other actors, most notably Russia, with whom the Chinese government has formed a special partnership in order to address a major stumbling block; China is not an Arctic state.<sup>126</sup> This special relationship, described in greater detail above, shows similarities to an agreement between a landlord and a renter, where China, in return for much needed

---

<sup>125</sup> (A. Organski 1968) p.277

<sup>126</sup> (The State Council Information Office of the People's Republic of China 2018)



investment capital to develop its vast Arctic territories, is able to ‘rent’ access to Arctic resources and shipping lanes in the NSR.<sup>127</sup>

However, as also laid out above, the relationship between China and Russia shows signs of strain as China outpaces Russia by several metrics including their mutual trade relations and China’s ability to outmaneuver Russia in developing relations with other East Asian and Central Asian states.<sup>128</sup> This could lead to an eviction scenario which would leave China out in the cold, disrupting the Polar Silk Road as well as the numerous energy and infrastructure investments China has in the Far North. Cognizant of this, China has begun the search for new Arctic partners, not only to increase its standing in the region, but to also act as insurance against a change in Russian foreign policy. In this search, China is again using one of its strongest soft power assets: money. The most likely recipients of this investment would be Greenland and Iceland, two actors who are strategically positioned in the Arctic and whose small economies and populations would be most susceptible to Chinese attempts at garnering influence.

Beginning with Iceland, observers are able to clearly see China’s Arctic ambitions in their new, immense embassy in Reykjavik which dwarfs all others in the small island nation of slightly under 340,000. The embassy can accommodate a staff of up to 700, far more than the embassy or consulate of any other state, and ten times as many as the United States’ embassy which staffs a modest 70 persons by comparison.<sup>129</sup> China has worked with Iceland on developing numerous hydrocarbon projects and shipping infrastructure projects in anticipation of the island’s increasing importance as the century progresses.<sup>130</sup> The two also formed the first free trade

---

<sup>127</sup> (Sun 2018)

<sup>128</sup> (Pezard 2018) (Hsiung 2016)

<sup>129</sup> (Coffey, As the ice melts, the Arctic's strategic importance sharpens into focus 2018)

<sup>130</sup> (Guschin 2015)

agreement between China and a European country in 2013, creating an amicable relationship which China hopes to continue to cultivate in order to receive access to building sites and garner increased support in the Arctic Council.<sup>131</sup>

However not all aspects of the two's relationship are as smooth as could be. Large land deals by Chinese billionaires have fallen through based on negative public opinion, one of which in 2012 was for a 300sq km piece of the Grimsstadir a Fjollum region which would have totaled about 0.3% of Iceland's total land mass. Critics voiced concerns that the land deals were an attempt to gain a foothold on the island in order to be better prepared for the future bounty that climate change will bring, and that Iceland should hold onto its assets, especially sites for potential deep sea ports, as strategically important for the country's future.<sup>132</sup> In the future China will have to carefully navigate the delicate issue of sovereignty which remains very important to the citizens of Iceland who are well aware of their precarious position against a giant like China.<sup>133</sup> Presently though the relationship remains strong despite an increasing caution among many in Iceland. Showing the depth of this strong relationship is the Icelandic interest in the Belt and Road project, particularly the Polar Silk Road which the foreign minister for Iceland, Gudlaugur Thor Thordarsson, said in an op-ed for *China Daily*:

*“Iceland supports its objectives to enhance connectivity between Europe and Asia. We agree that increased flow of people, businesses, capital and technologies will bring benefit to all. We are confident that our relations will continue to develop in this direction, including through our current bilateral arrangements.”<sup>134</sup>*

---

<sup>131</sup> (Hong, China's Interests in the Arctic: Opportunities and Challenges 2018) p.7-8

<sup>132</sup> (BBC 2011) (BBC 2011)

<sup>133</sup> (Sigurdardottir 2017)

<sup>134</sup> (Thordarsson 2018)

China beginning a new Arctic rental via Iceland faces some significant hurdles which could cause it to look elsewhere. First, as mentioned above, Icelanders have very strong ideas concerning national sovereignty which would make any heavy handed or ambitious attempts to garner an agreement out of the small nation difficult if it were deemed by the population to not work in their favor. Secondly, Iceland has close ties to NATO and the EU, both of whom are wary of increasing Chinese influence in a partner who will play an important role in their respective Arctic policies as climate change continues. Iceland's maintaining of good relationships with both NATO and the EU are economically and politically, for the time being, more important than increasing relations with China.<sup>135</sup> Finally, Iceland does not *need* Chinese investment money, the island nation's economy, though small, maintains good relations with most of the world and despite the banking collapse in 2008 continues to have an enviable standard of living and shows a good economic outlook for the future.<sup>136</sup> This economic outlook is likely to only grow as Arctic shipping and resource extraction become more viable and Iceland finds itself being able to punch above its weight and negotiate on more equal footing with China which might make a rental agreement between the two for Arctic access less attractive.

China's best and most likely opportunity to either expand its Arctic access or move away from Russia is in Greenland. The geographically immense island's small population of slightly over 56,000 has had an increasingly tense relationship with its overlord, Denmark who holds suzerainty over Greenland as a constituent country in the larger Kingdom of Denmark. Here China has been more forward than it has been in Iceland in regards to trying to garner influence and find a favorable rental deal for the Arctic, much to the worry of both the EU and NATO who find their hands in this situation tied between championing the ideology of self-determination

---

<sup>135</sup> (Central Intelligence Agency 2019) Iceland

<sup>136</sup> (Romei and Murphy 2017)

and the political realities of China possibly gaining a manner of dominion over the strategic island has caused both to scramble to reassert Western favor with the native Greenlandic population.

China has extensively invested in resource extraction in Greenland, with many of its SOE's setting up operation on the island by taking over rights licenses from other mining outfits who have been put off by the current low market price for many of the island's available minerals. These SOEs (and by virtue the government in Beijing or vice versa) see Greenland as a strategic area for long term investment as extraction costs are likely to go down in the future.<sup>137</sup> These mining rights also allow China to diversify its mineral portfolio for in-demand resources, especially Zinc, which the demand for in China increased had by 122% between the years 2005 and 2015 and which continues to rise while reserves in China itself have dropped from 11 years down to only 8 within the past decade.<sup>138</sup> China's mineral ambitions have not gone unnoticed in Copenhagen, who has had difficulty competing with the amount of ready-capital Chinese SOEs are able to offer the semi-autonomous Greenlandic government, as well as sentiments among Greenlanders that such deals with China would give greater autonomy to the island economically, a key factor in eventual independence.<sup>139</sup>

Investments in Greenlandic infrastructure by China has also met with resistance from Denmark, the two most prominent examples of which have been investment into three Greenlandic airports and the purchase of a decommissioned naval base. The airports in question had proposals from Chinese construction giant China Communications Construction Company (CCCC) prequalified by the native Greenlandic government to build the airports on the island which would increase

---

<sup>137</sup> (Jiang, China in Greenland: Companies, Governments, and Hidden Intentions? 2018)

<sup>138</sup> (Andersson, Zeuthen and Kalvig 2018)

<sup>139</sup> (Bislev, Gad and Zeuthen 2018)

passenger and cargo capacity, something which is desperately needed as tourism, business, and trade increases. Danish authorities were worried that the €383 million price tag could lead to a debt trap between the Greenlandic government and China, as well as posing a security risk by allowing China to develop air infrastructure which could easily turn strategic. To curb Chinese influence, the Danish government will fund a 33% stake in the airports to supplement the Greenlandic government's own investment into the project. This deal remains unpopular with pro-independence Greenlandic politicians who claim it is an unwelcome move by Denmark into affairs which should remain strictly Greenlandic and is an attempt by Copenhagen to keep the island dependent on Danish handouts.<sup>140</sup> Similarly, a 2016 offer by a Chinese mining firm to buy a decommissioned naval base in Grønnedal, Greenland was turned down in the name of security by Denmark, much to the ire of Greenlandic self-rule authorities. Danish PM Lars Løkke Rasmussen intervened personally in the matter and asked party leaders to support a plan to reopen the base for use by the Danish Navy to keep it out of Chinese hands.<sup>141</sup> The base which was built by the United States during World War Two and had formerly been the headquarters for Denmark's Greenland Command would have offered simple port and storage facilities which could have been expanded with further investment by China, had the deal gone through.<sup>142</sup>

Both of the projects' usurpations from the native Greenlandic government came on the grounds of security, one of the areas which Denmark still directly controls as the head of the Kingdom. Concerns arose not only from Copenhagen however; the United States also voiced its opposition to increasing Chinese influence in Greenland. The two have had a close security partnership since the signing of a defense agreement in April of 1951 which gave the United States extensive

---

<sup>140</sup> (Bennett 2018) (Lucht 2018) (Simpson 2018)

<sup>141</sup> (Jiang, Chinese Investment in Denmark: An Open Economy and Rare Political Questions 2017)p. 50-53

<sup>142</sup> (Breum, Analysis: Did the Danish PM prevent a Chinese acquisition on Greenland? 2016)

military rights in Greenland. This substantially boosted the United States' and NATO's power projection and early warning capabilities in the northern hemisphere, presently centered on Thule Air Force Base in the far north of Greenland, and has become one of their most valuable assets.<sup>143</sup> The opening of a Chinese naval facility, similarly to a Chinese controlled airport in Greenland would be seen as a direct threat to the United States' and NATO's situational security and could prompt economic or political intervention to avoid such a scenario. Søren Espersen, a Danish MP comment on the matter that "Denmark cannot play on two horses. The government in Copenhagen has to stop the Chinese plans, because if it doesn't, the United States will,"<sup>144</sup> The United States in turn issued a statement of intent on defense investments in Greenland by John Rood, Under Secretary of Defense Policy, from its embassy in Copenhagen, stating that it would look to increase investments in Greenland that it would "pursue potential strategic investments vigorously, including investments that may serve dual military and civilian purposes."<sup>145</sup>

Some scholars in China have begun to advocate the possibility of Greenlandic independence to party officials in Beijing, citing the economic and strategic benefits that a policy of open support would bring should the island make an eventual push for sovereignty from Denmark.<sup>146</sup> However, as might be expected, the government has been trying to avoid any signaling of its support, not only because of the potential disruption it would bring to the international system, but because of China's own problems with rebellious populations in Tibet, Xinjiang, and Taiwan.<sup>147</sup> Greenlanders themselves however are vocal about their dissatisfaction with the status quo with Denmark. In the 2018 elections for Greenland's parliament all but one political party

---

<sup>143</sup> (Bislev, Gad and Zeuthen 2018) (Matzen, Denmark spurned Chinese offer for Greenland base over security - sources 2017)

<sup>144</sup> (Matzen and Daly, Greenland's courting of China for airport projects worries Denmark 2018)

<sup>145</sup> (Goodman 2018)

<sup>146</sup> (Lulu, Leading Chinese scholar discusses Greenland's independence 2018)

<sup>147</sup> (Jiang, China in Greenland: Companies, Governments, and Hidden Intentions? 2018)

had campaigned for independence (though opinions on the when and how of independence varied).<sup>148</sup> As tensions increase between Denmark and Greenland, it is likely that China will not only be perusing more ventures on the island, but will also be receiving more prompts from the Greenlandic government to invest in the long list of infrastructure projects necessary for independence to be feasible.<sup>149</sup>

Here we see Organski's idea of interfering in other nation's internal affairs as a means to influence the balance of power: "it is not unusual for a major nation to regain a lost ally or perhaps pick up a new one by intervening in the internal affairs of a smaller country and establishing a friendly government in power."<sup>150</sup> In its precarious position, China is safeguarding against exclusion from the Arctic as a privileged actor by Russia by grooming a possibly independent Greenland to bond itself to China as a guarantor of its sovereignty by, paradoxically, placing it under suzerainty similar to the relationship which it had with Denmark. Should this occur, China would have possibly greater Arctic access than it has now, especially when considering that in the time it would take for such an event to occur the TPR would be a more viable shipping route which would allow it to bypass the other two routes which pass through the EEZs of other Arctic actors for at least part of the year. As well, should an independent Greenland join the Arctic Council (being a state with territory above the Arctic Circle) it would allow China to have proxy voting rights.

This scenario would severely upset the balance of power in the Arctic, perhaps to a tipping point. Other Arctic actors are unlikely to accept such a blatant and ambitious move by a non-Arctic state to influence a region which they believe to be exclusive. Arctic states would likely form a

---

<sup>148</sup> (Kirk 2018)

<sup>149</sup> (Lulu, China, Greenland and competition for the Arctic 2017)

<sup>150</sup> (A. Organski 1968) p.278

united front to either exclude Greenland from Arctic governance or to pressure the Greenlandic government to remove facets of Chinese influence. The creation of a Chinese puppet so close to Europe and North America would also likely bring a direct response from NATO to not only protect their strategic assets on the island, but to prevent an emerging rival from increasing their power projection capabilities so close to NATO member states.

### *The Impact of Climate Change on the Balance of Power*

Climate change has a unique place in the Arctic's balance of power; it has no agenda, no allies or enemies, it cannot be negotiated with nor intimidated into changing its course of action, its recent momentum is what has opened the Arctic and brought the balance of power to life and made the region prosperous, it has also brought about the end of a way of life which has lasted for tens of thousands of years for hundreds of native groups and represented the beginning of the end for a delicate ecosystem whose species cannot adapt quickly enough to the change. All Arctic actors are affected by climate change and there is very little that can be done, save a global effort, to halt and reverse this phenomenon meaning that it can now be looked at as a fact-of-reality not only in the Arctic, but worldwide.<sup>151</sup>

The effect of climate change on the balance of power in the Arctic is shown in how different actors either benefit or are disadvantaged by the evolving environmental conditions. Unlike other influences on the balance of power, an actor cannot directly address climate change in any meaningful manner in the Arctic; summer ice cannot be refrozen and warming permafrost and tundra cannot be cooled en masse. The two greatest impacts that climate change has on the balance of power is the melting of sea ice, with the more pronounced sea ice melt over the NSR

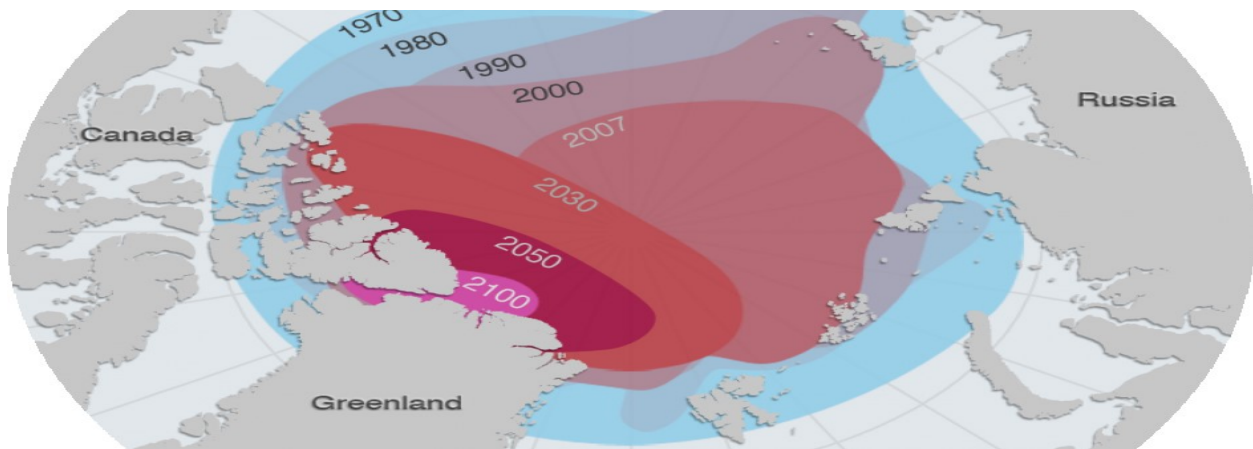
---

<sup>151</sup> (United Nations Generally Assembly 2018)



giving an advantage to the Sino-Russian partnership over the NATO alliance whose NWP does not have the same ice-free period, and the effect the warming temperatures have on infrastructure built what was thought to be permafrost.

As shown in the section covering arctic shipping, the NSR's yearly season of less than 40% ice coverage by 2030 is nearly double that of the NWP (19 weeks compared to 11) meaning that shipping firms who use the NSR will have longer shipping seasons with shorter transit times, making it a more lucrative route economically not only in transit fees, but also in services provided (refueling, docking fees, ice breaking escort, etc.) for longer periods of time.<sup>152</sup> This also increases the window of opportunity for military vessels to quickly transfer from their Pacific stations to those in the North Atlantic, a long time problem for the Russian Navy, and an opportunity for the PLAN to become a player in Atlantic maritime security politics.

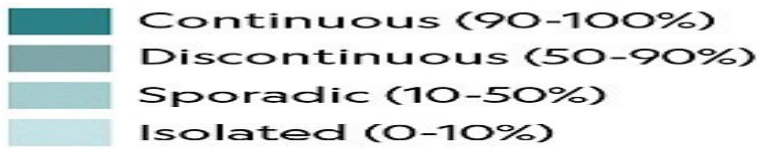


*As can be seen here, the ice melt favors the Eurasian northern coast line, with the remaining permanent ice pack being centered on northern Greenland.<sup>153</sup>*

<sup>152</sup> (Chief of Naval Operations 2014)

<sup>153</sup> (Huttner 2015)

## PERMAFROST EXTENT



© National Geographic

*Much of the northern latitudes have permanent layers of permafrost which will melt as climate change continues.*<sup>154</sup>

The shifting climate has not only caused significant melting in the sea ice, but also in the permafrost on which much of the infrastructure in the Arctic is built. Permafrost, as the name suggests, is a layer of permanently frozen earth found in the coldest regions of the planet. As the permafrost melts, the ground shifts and buckles in a similar way as if a layer of bedrock in a warmer climate had magically turned to mush. This poses a serious problem for Arctic infrastructure, most of which was built with the permanent characteristic of permafrost in mind; many Arctic communities have already experienced cracks in the foundations of buildings, utility poles leaning and falling, underground piping for sewage and water busting, and roads crumbling.<sup>155</sup>

<sup>154</sup> (Welch 2018)

<sup>155</sup> (A. Martin 2018) (Welch 2018)

The permafrost melting impacts the balance of power by putting security infrastructure such as military bases, airports, roadways, and power stations in jeopardy. The costs can be astronomical to repair or replace this infrastructure, with the price of material and labor being magnified several times due to the harsh and remote environment of the Arctic. The United States has recognized this problem and in both its 2014 *Arctic Roadmap 2014-2030* and 2016 *Strategy to Protect United States National Security Interests in the Arctic Region* spelled out the difficulty and expense of maintaining critical infrastructure in the Arctic.<sup>156</sup>

To attempt to mitigate the effect of climate change on the balance of power in the Arctic, actors should ‘rearm’ to better work in the realities of climate change. Such rearmament takes form in the construction and reconstruction of the vital infrastructure mentioned above and the acquisition of assets (for NATO) which would offset the advantage the NSR’s longer shipping period gives to the Sino-Russian partnership. However, this again brings the possibility of an Arctic arms race as predicted by Organski.<sup>157</sup> The beginnings of an arms race might be seen in Russia’s quick build-up of military infrastructure in the far north. The Arctic giant has been refurbishing old Soviet bases and building new military outposts along the coastline and on Arctic islands equipped with coastal and air defenses, including prototypes of a ‘polar’ variant of their much touted S-400 anti-aircraft systems, and stationing aircraft and naval vessels in regions previously thought to be too remote or too hostile to need active protection.<sup>158</sup>

To maintain a neutral balance, NATO will need to answer with a building and rearmament program of their own; however as mentioned in previous sections, the United States and allies have only recently begun to turn their attention back to the Arctic and have yet to implement any

---

<sup>156</sup> (Chief of Naval Operations 2014) (US Department of Defense 2016)

<sup>157</sup> (A. Organski 1968)p.276

<sup>158</sup> (Forsythe 2018) (Ilyushina and Pleitgen 2019)

significant strategies which might mitigate Russian improvements in the theater. This strategy as well runs the risk of creating an arms race which, with its already weak starting position, would cost the United States and NATO a significant amount in order not to fall further behind and have the balance tip in the favor of other actors.



Russia's building program has given it a favorable position in the Arctic balance of power.<sup>159</sup>

<sup>159</sup> (Bender 2015)Photo (Forsythe 2018)

## Conclusion

The Arctic is a rapidly developing region by all metrics. It has the potential to revolutionize international shipping, increase the global supply of hydrocarbons and rare earth metals, and create tens of thousands of jobs in supporting roles in areas previously written off as too remote for development or investment. Politically the Arctic is on the forefront of international relations with two major power blocs, NATO and the Sino-Russian partnership, in a balance of power which is quickly evolving alongside changing environmental conditions. These two blocs, which constitute the bulk of international power and prestige, create a dynamic which has the potential to either embrace the bounty of the Arctic through cooperation and diplomacy or to compete in a zero-sum game through coercion and conflict.

At the core of these two blocs are the People's Republic of China and the United States of America, powerful actors in their own right with contrasting approaches to the Arctic. China, a self-declared 'near-Arctic state', sees the evolving region as another avenue for it to increase its international standing and boost its economy through a 'rental' of Arctic access from its partner, Russia. It invests heavily in the far north, focusing on hydrocarbon extraction, infrastructure projects, and improvements along the Northern Sea Route, all of which play into its Polar Silk Road project, an ambitious plan similar to the Belt and Road initiative with aims to solidify China's place among the great powers. China's geography however is a stumbling block in its Arctic planning; near-Arctic is not Arctic. Arctic actors, especially those who have voting privileges in the leading body of Arctic stewardship, the Arctic Council, are wary of China's growing clout in a region which they view as exclusively under their authority and keep the ambitious actor at arms-length as a non-voting observer state. To counteract the Arctic Council's

monopoly on the Arctic, China has been using its economic might to garner favor from smaller Council members and buy up land and mining rights in anticipation of further climate change. The most promising of these new relationships is with Greenland, a constituency state in the Kingdom of Denmark whose dissatisfaction with rule from Copenhagen could offer China an opportunity to bankroll the Greenlandic independence movement in return for Arctic access. This bold strategy however would put it at direct odds with not only Denmark, but also with its allies in NATO and the European Union.

China's impact on the balance of power has shown its aversion to raising tensions with other Arctic actors, this is highlighted in its 2018 Arctic policy white paper which lays out its desire for 'win-win' planning, development, and cooperation among all Arctic actors, near-Arctic or otherwise. China's potential to influence the balance will increase with climate change and as the Polar Silk Road progresses, however, due to its rental status in the Arctic and its present inability to project power beyond its home region, China is likely to continue to non-confrontational economic pursuits and leave matters of Arctic security and sabre rattling to its partner Russia.

The United States, as opposed to China's active Arctic participation, has been called a reluctant Arctic power by analysts for its apathy towards Arctic development and governance. Despite being an Arctic littoral state and a voting member of the Arctic Council, the United States approach has mostly been limited to environmental stewardship and domestic debates over opening protected areas in Alaska to resource exploration. Though many in the United States' Department of Defense have voiced concerns over a build-up in the Arctic capabilities of the Sino-Russian partnership, and repeatedly called for an increase in government spending on vital defense infrastructure such as ice-breaker fleets and refurbishing aging assets in Alaska,

Congress has remained focused instead on continuing to funnel money into ongoing conflicts in the Middle East.

The United States' hands-off approach to the Arctic has led to a weaker position for it, and for its NATO allies in the Arctic balance of power. Though some member states, most exemplary of which being Norway, have attempted to mitigate this effect by boosting their own stance in the Arctic through increasing infrastructure and military preparation. The alliance's lack of a unified strategy for the region will present problems in coming years as the Arctic becomes more accessible to outside actors. Exercises such as the Trident Juncture war games in 2018 perhaps show that NATO is beginning to take a more vested interest in the Arctic as a security realm as a collective. The United States' participation in these war games as well as a cautious stance on a continued build-up of military infrastructure by longtime rival Russia in the Arctic could show too that the reluctant Arctic power is ready to take developments in the far north more seriously.

Presently as a whole, the balance of power remains civil and lawful. Unlike other flashpoints around the world, actors in the Arctic have primarily chosen to settle disputes through intergovernmental organizations such as the Arctic Council or through structured negotiations rather than through threats or military action. This is likely due to the interconnectedness of all Arctic actors; hostility against one would bring the response of many, whose collective ire would likely outweigh the perceived gains from any sort of drastic action. The region too has also kept its affairs insulated from outside disputes which might disrupt the relative harmony, notably the Ukraine Crisis which outside of the Arctic has soured cooperation between Russia and many of the other Arctic Council participants.

Another probable cause for the cordial interactions is the physical state of the Arctic. Concerning navigation, the Arctic still remains ice-locked in non-Summer months and even when navigable, weather conditions can change rapidly putting assets and personnel at risk making incursions into disputed waters unlikely, while commercial shipping is regimented to well defined, cleared routes. For resource extraction, development in the hostile and remote environment requires regulatory stability and predictability which can only be achieved through cooperation between the extraction corporations (who are almost always international in nature with connections to their home governments) and local authorities who have an incentive to insure the continuation of the economic benefits of resource extraction.

In closing, the Arctic is an evolving region whose importance in international relations will only grow with time. The still developing balance of power, though stable for the time being, has the potential to develop into a flash point as the Arctic becomes more accessible with climate change. Great powers such as the United States and China, along with their respective allies, will be pushed into competition and disputes over resource and navigation rights in a theater previously thought of as a geopolitical backwater. Further research on the Arctic balance of power, as well as research on the developing power blocs participating in this balance is not only warranted, but necessary, to insure that the Arctic remains conflict-free and open to cooperative development.



## Works Cited

- Agence France-Presse, France 24. *NATO to show military muscle in massive Norway exercises*. 10 23, 2018. <https://www.france24.com/en/20181023-nato-show-military-muscle-massive-norway-exercises> (accessed 03 10, 2019).
- Andersson, Patrik, Jesper Willaing Zeuthen, and Per Kalvig. *Chinese Mining in Greenland: Arctic Access or Access to Minerals?*. Arctic Yearbook, 2018.
- Arctic Council. *Observers*. 05 07, 2015. <https://arctic-council.org/index.php/en/about-us/arctic-council/observers> (accessed 04 04, 2019).
- . *The Arctic Council: A backgrounder*. 09 13, 2015. <https://www.arctic-council.org/index.php/en/about-us> (accessed 04 04, 2019).
- . *United States of America*. 09 13, 2018. <https://arctic-council.org/index.php/en/about-us/member-states/united-states-of-america> (accessed 01 29, 2019).
- Armstrong, Peter. *Sure, we could spend 4% of GDP on the military — with huge cuts or tax hikes*. 07 13, 2018. <https://www.cbc.ca/news/business/armstrong-military-spending-trump-1.4743967> (accessed 03 10, 2019).
- Baylis, John, Steve Smith, and Patricia Owens. *The Globalization of World Politics, an Introduction to International Relations*. New York: Oxford , 2011.
- BBC. *China tycoon Huang Nubo angered by Iceland land move*. 11 28, 2011. <https://www.bbc.com/news/world-asia-15916486> (accessed 04 06, 2019).
- . *China's Huang Nubo seeks Iceland land for eco-resort*. 08 30, 2011. <https://www.bbc.com/news/world-europe-14714524> (accessed 04 06, 2019).
- Bender, Jeremy. *Russia just put the finishing touches on 6 Arctic military bases*. 12 07, 2015. <https://www.businessinsider.com/russia-equipped-six-military-bases-in-the-arctic-2015-12> (accessed 04 15, 2019).
- Bennett, Mia. *The controversy over Greenland airports shows China isn't fully welcome in the Arctic — yet*. 09 13, 2018. [https://www.arctictoday.com/controversy-greenland-airports-shows-china-still-unwelcome-arctic/?wallit\\_nosession=1](https://www.arctictoday.com/controversy-greenland-airports-shows-china-still-unwelcome-arctic/?wallit_nosession=1) (accessed 04 08, 2019).
- Berkman, Paul Arthur, Alexander N. Vylegzhanin, and Oran R. Young. "Governing the Bering Strait Region: Current Status, Emerging Issues and Future Options." *Ocean Development & International Law*, 04 19, 2016: 186-217.
- Bislev, Ane, Ulrik Pram Gad, and Jesper Willaing Zeuthen. "China seeking Arctic Resources - The Arctic seeking resources in China." *Arctic Yearbook*, 2018: 1-4.

- Breum, Martin. *Analysis: Did the Danish PM prevent a Chinese acquisition on Greenland?* 12 20, 2016. <https://www.highnorthnews.com/nb/analysis-did-danish-pm-prevent-chinese-acquisition-greenland> (accessed 04 08, 2019).
- . *Did Denmark's prime minister stop a Chinese firm from buying an abandoned military base in Greenland?* 12 23, 2016. [https://www.arctictoday.com/did-denmarks-prime-minister-stop-a-chinese-firm-from-buying-an-abandoned-military-base-in-greenland/?wallit\\_nosession=1](https://www.arctictoday.com/did-denmarks-prime-minister-stop-a-chinese-firm-from-buying-an-abandoned-military-base-in-greenland/?wallit_nosession=1) (accessed 04 08, 2019).
- . *Why Russia is likely to remain cooperative in the Arctic.* 11 22, 2018. [https://www.arctictoday.com/russia-likely-remain-cooperative-arctic/?wallit\\_nosession=1](https://www.arctictoday.com/russia-likely-remain-cooperative-arctic/?wallit_nosession=1) (accessed 04 04, 2019).
- Bye, Hilde-Gunn, and Andreas Osthagen. *Why Norway and the US have different approaches towards their Arctic regions.* 11 01, 2018. <https://www.highnorthnews.com/en/why-norway-and-us-have-different-approaches-towards-their-arctic-regions> (accessed 03 10, 2019).
- CBC. *U.S., Canada ban offshore drilling in Arctic waters.* 12 20, 2016. <https://www.cbc.ca/news/technology/obama-ban-offshore-drilling-arctic-atlantic-1.3905384> (accessed 01 29, 2019).
- Center for Strategic & International Studies. "Comments by Admiral Paul F. Zukunft." *The Arctic of the Future: Strategic Pursuit or Great Power Miscalculation?* 05 08, 2018.
- Central Intelligence Agency. *World Factbook.* 02 09, 2019. <https://www.cia.gov/library/publications/the-world-factbook/> (accessed 02 09, 2019).
- Chief of Naval Operations. *The United States Navy Arctic Roadmap for 2014 to 2030.* Washington D.C.: United States Department of the Navy, 2014.
- Coffey, Luke. *As the ice melts, the Arctic's strategic importance sharpens into focus.* 10 19, 2018. <https://www.trtworld.com/opinion/as-the-ice-melts-the-arctic-s-strategic-importance-sharpens-into-focus-20987> (accessed 04 05, 2019).
- Coffey, Luke, and Daniel Kochis. *Brussels NATO Summit 2018: Time to Get Serious About the Arctic.* No. 4875, Washington D.C.: The Heritage Foundation, 2018.
- Congressional Research Service. "Changes in the Arctic: Background and Issues for Congress." Washington DC: Congressional Research Service, 12 13, 2018.
- Davenport, Coral. *Trump's Order to Open Arctic Waters to Oil Drilling Was Unlawful, Federal Judge Finds.* 03 30, 2019. <https://www.nytimes.com/2019/03/30/climate/trump-oil-drilling-arctic.html> (accessed 03 31, 2019).
- Deja, Cathyrine T.R. *NATO's Future Role in the Arctic.* Maxwell AFB, Alabama: Air Command and Staff College, Air University, 2016.

- Dobbins, James, Howard J. Shatz, and Ali Wyne. "Russia is a Rogue, Not a Peer; China is a Peer, not a Rogue." *Perspective*. Rand Corporation, 10 2018.
- Duran, Mirza. *Novatek says ships 1st Yamal LNG cargo via Northern Sea Route*. 06 27, 2018.  
<https://www.lngworldnews.com/novatek-says-ships-1st-yamal-lng-cargo-via-northern-sea-route/> (accessed 03 12, 2019).
- Dutta, Ashok. *China's Sinoenergy to invest C\$500 mil in Canada's Long Run Exploration*. 08 22, 2016.  
<https://www.spglobal.com/platts/en/market-insights/latest-news/natural-gas/092216-chinas-sinoenergy-to-invest-c500-mil-in-canadas-long-run-exploration> (accessed 04 20, 2019).
- Encyclopedia Britannica . *Bering Strait*. 10 11, 2011. <https://www.britannica.com/place/Bering-Strait> (accessed 02 19, 2019).
- Fedorov, Yury. *Russia Between Fascism and Disintegration*. Kyiv: Center for Army, Conversion, and Disarmament Studies, 2017.
- Fernandez, Linda, Brooks Kaiser, Sue Moore, and Niels Vestergaard. "Introduction to Special Issue: Arctic Marine Resource Governance." *Marine Policy*, 2016: 237-239.
- Food and Agriculture Organization of the United Nations. *The State of World Fisheries and Aquaculture*. Rome: Food and Agriculture Organization of the United Nations, 2018.
- Forsythe, Col. Michael J. "Why Alaska and the Arctic are Critical to the National Security of the United States." *Military Review*, 2018: 113-119.
- Freeman, Carla P. *New Strategies for an old rivalry? China-Russia Relations in Central Asia After the Energy Boom*. 11 30, 2017.  
<https://www.tandfonline.com/doi/abs/10.1080/09512748.2017.1398775?journalCode=rpre20> (accessed 03 17, 2019).
- Gady, Franz-Stefan. *China Launches First Domestically Built Polar Icebreaker*. 09 11, 2018.  
<https://thediplomat.com/2018/09/china-launches-first-domestically-built-polar-icebreaker/> (accessed 01 28, 2019).
- Gallo, William. *Why Hasn't the US Signed the Law of the Sea Treaty*. 06 06, 2016.  
<https://www.voanews.com/a/united-states-sign-law-sea-treaty/3364342.html> (accessed 01 29, 2019).
- Garamone, Jim. *U.S., NATO Assess Lessons of Trident Juncture Exercise*. 01 17, 2019.  
<https://www.defense.gov/explore/story/Article/1734333/us-nato-assess-lessons-of-trident-juncture-exercise/> (accessed 03 08, 2019).
- Gazprom. *Gazprom and CNPC discuss planned supplies of Russian gas to China*. 02 15, 2019.  
<http://www.gazprom.com/press/news/2019/february/article474954/> (accessed 03 12, 2019).

- Goodman, Sherri. *China's Growing Arctic Presence*. 11 19, 2018. <https://www.wilsoncenter.org/article/chinas-growing-arctic-presence> (accessed 04 09, 2019).
- Gosnell, Rachael. *The Future of the Arctic Economy*. 07 09, 2018. <https://www.maritime-executive.com/editorials/the-future-of-the-arctic-economy> (accessed 02 23, 2019).
- Gosnell, Rachel. *The Future of the Arctic Economy*. 07 09, 2018. <https://www.maritime-executive.com/editorials/the-future-of-the-arctic-economy> (accessed 03 01, 2019).
- Gramer, Robbie. *Infographic: Here's How the Global GDP Is Divvied Up*. 02 24, 2017. <https://foreignpolicy.com/2017/02/24/infographic-heres-how-the-global-gdp-is-divvied-up/> (accessed 02 09, 2019).
- Grieger, Gisela. *China's Arctic Policy, How China aligns rights and interests*. 05 2018. [http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/620231/EPRS\\_BRI\(2018\)620231\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/620231/EPRS_BRI(2018)620231_EN.pdf) (accessed 01 28, 2019).
- Guschin, Arthur. *China, Iceland and the Arctic*. 05 20, 2015. <https://thediplomat.com/2015/05/china-iceland-and-the-arctic/> (accessed 04 06, 2019).
- Hamzah, B.A. *Alleviating China's Malacca Dilemma*. 03 13, 2017. <http://isdpa.eu/alleviating-chinas-malacca-dilemma/> (accessed 03 12, 2019).
- Harball, Elizabeth. *Trump Administration Takes Next Step Toward Oil Lease Sales In Arctic Refuge*. 12 20, 2018. <https://www.npr.org/2018/12/20/678864239/trump-administration-takes-next-step-toward-oil-lease-sales-in-arctic-refuge> (accessed 02 23, 2109).
- High North News. *Statsbudsjettet: Øker det militære nærværet i nord*. 10 08, 2018. <https://www.highnorthnews.com/nb/statsbudsjettet-oket-det-militaere-naervaeret-i-nord> (accessed 03 10, 2019).
- Hong, Nong. *China's Interests in the Arctic: Opportunities and Challenges*. Washington DC: Institute for China-America Studies, 2018.
- . "China's Interests in the Arctic: Opportunities and Challenges." Washington DC: Institute for China-America Studies, 03 2018.
- . "Examining the Implications of China's Arctic Policy White Paper." *China's Interests in the Arctic: Opportunities and Challenges*. Institute for China-America Studies, 03 2018.
- Horobets, Alex. *Adapting NATO to New Challenges in the Arctic and Black Sea Regions*. 01 22, 2019. <https://icds.ee/adapting-nato-to-new-challenges-in-the-arctic-and-black-sea-regions/> (accessed 03 06, 2019).
- Hsiung, Christopher Weidacher. "China and Arctic energy: drivers and limitations." *The Polar Journal*. Routledge, 10 26, 2016.

- Huang, Linyan, Frederic Lasserre, and Olga Alexeeva. "Is China's Interest for the Arctic Driven by Arctic Shipping Potential? ." *Asian Geographer*, 2015: 59-71.
- Humpert, Malte. *Russia's Northern Sea Route sees record cargo volume in 2018*. 02 20, 2019. [https://www.arctictoday.com/russias-northern-sea-route-sees-record-cargo-volume-in-2018/?wallit\\_nosession=1](https://www.arctictoday.com/russias-northern-sea-route-sees-record-cargo-volume-in-2018/?wallit_nosession=1) (accessed 03 15, 2019).
- Humpert, Malte, and Andreas Raspotnik. *The Future of Arctic Shipping*. 10 11, 2012. <https://www.thearcticinstitute.org/future-arctic-shipping/> (accessed 02 14, 2019).
- . *The Future of Arctic Shipping along the Transpolar Sea Route*. 11 27, 2012. <https://www.thearcticinstitute.org/future-arctic-shipping-transpolar-sea-route/> (accessed 02 14, 2019).
- Huttner, Paul. *Arctic Sea Ice on Pace for New Record Low*. 05 12, 2015. <https://blogs.mprnews.org/updraft/2015/05/arctic-sea-ice-on-pace-for-new-record-low/> (accessed 04 14, 2019).
- Ilyushina, Mary, and Fredrick Pleitgen. *Inside the military base at the heart of Putin's Arctic ambitions*. 04 05, 2019. <https://edition.cnn.com/2019/04/04/europe/russia-arctic-kotelny-island-military-base/index.html> (accessed 04 15, 2019).
- James, Carolyn C., and Patrick James . "Canada, the United States and Arctic Sovereignty: Architecture Without Building? ." *American Review of Canadian Studies*, 2014: 187-204.
- Jiang, Yang. "China in Greenland: Companies, Governments, and Hidden Intentions?" Danish Institute for International Studies, 10 2018.
- . "Chinese Investment in Denmark: An Open Economy and Rare Political Questions." *Chinese Investment in Europe, A Country-Level Approach*. European Think-tank Network on China, 12 2017.
- Johnson, Dave. *VOSTOK 2018: Ten years of Russian strategic exercises and warfare preparation*. 12 20, 2018. <https://www.nato.int/docu/review/2018/Also-in-2018/vostok-2018-ten-years-of-russian-strategic-exercises-and-warfare-preparation-military-exercises/EN/index.htm> (accessed 03 08, 2019).
- Jozwiak, Rikard. *NATO Launches 'Biggest Military Exercise Since The End Of The Cold War'*. 10 25, 2018. <https://www.rferl.org/a/nato-set-to-start-biggest-military-exercise-since-the-end-of-the-cold-war-/29561371.html> (accessed 03 06, 2019).
- Kauffman, Mary. *Kuskowim Tries Fight Donlin Mine Permits*. 02 10, 2019. [http://www.sitnews.us/0219News/021019/021019\\_donlin\\_mine\\_permits.html](http://www.sitnews.us/0219News/021019/021019_donlin_mine_permits.html) (accessed 02 25, 2019).

- King, Hobart M. *Oil and Natural Gas Resources of the Arctic*. n.d. <https://geology.com/articles/arctic-oil-and-gas/> (accessed 02 24, 2019).
- Kirk, Lisbeth. *Greenland votes with eye on independence*. 04 24, 2018. <https://euobserver.com/nordic/141674> (accessed 04 10, 2019).
- Krupnick, Alan. *Drilling for Oil in the Arctic: Considering Economic and Social Costs and Benefits*. 06 02, 2011. <https://www.resourcesmag.org/common-resources/drilling-for-oil-in-the-arctic-considering-economic-and-social-costs-and-benefits/> (accessed 02 23, 2019).
- Lackenbauer, Whitney, and Rob Huebert. "Premier Partners: Canada, the United States, and Arctic Security." *Canadian Foreign Policy Journal*, 2015: 320-333.
- Lajeunesse, Adam. "Finding "Win-Win" China's Arctic Policy and what it Means for Canada." *The School of Public Policy, University of Calgary*. Calgary: Canadian Global Affairs Institute , 12 2018.
- Lajeunesse, Adam, and P. Whitney Lakenbauer. "Chinese Mining Interests and the Arctic." In *Governing the North American Arctic: Sovereignty, Security, and Institutions*, by Alexandra Dawn Berry, Nigel Bowles and Halbert Jones, 74-94. Oxford: St. Antony's Series, 2016.
- Lavrov, S., and Xuexian Wang. "Russian-Chinese Joint Declaration on a Multipolar World and the Establishment of a New International Order." New York: United Nations, General Assembly , 04 23, 1997.
- Leblanc, Pierre. *Canada's Northern People Deserve Better Arctic SAR Capabilities*. 03 10, 2018. <https://www.maritime-executive.com/editorials/canada-s-northern-people-deserve-better-arctic-sar-capabilities> (accessed 03 10, 2109).
- Lindholt, Lars, and Solveig Glomsrod. *Phasing out coal and phasing in renewables - good or bad news for arctic gas producers?* . Kongsvinger: Statistics Norway Research Department, 2017.
- Livingston, Ian, and Michael O'Hanlon. *Why China isn't ahead of the US Navy, even with more ship*. 09 10, 2108. <https://www.brookings.edu/blog/order-from-chaos/2018/09/10/why-china-isnt-ahead-of-the-us-navy-even-with-more-ships/> (accessed 03 12, 2019).
- Lucht, Hans. *Chinese investments in Greenland raise US concerns*. 11 20, 2018. <https://www.diis.dk/en/research/chinese-investments-in-greenland-raise-us-concerns> (accessed 04 08, 2019).
- Lulu, Jichang. *China, Greenland and competition for the Arctic*. 01 02, 2017. <http://theasiadialogue.com/2017/01/02/china-greenland-and-competition-for-the-arctic/> (accessed 04 10, 2019).
- . *Leading Chinese scholar discusses Greenland's independence*. 03 12, 2018. <https://jichanglulu.wordpress.com/2018/03/12/leading-chinese-scholar-discusses-greenlands-independence/> (accessed 04 29, 2019).

- Martin, Amy. *Arctic permafrost is starting to thaw. Here's why we should all care*. 10 29, 2018. <https://www.pri.org/stories/2018-10-29/arctic-permafrost-starting-thaw-here-s-why-we-should-all-care> (accessed 04 15, 2019).
- Martin, Miguel. "China in Greenland: Mines, Science, and Nods to Independence." *The Jamestown Foundation*. 03 12, 2018. <https://jamestown.org/program/china-greenland-mines-science-nods-independence/> (accessed 01 28, 2019).
- Matzen, Erik. *Denmark spurned Chinese offer for Greenland base over security - sources*. 04 06, 2017. <https://uk.reuters.com/article/uk-denmark-china-greenland-base-idUKKBN1782E2> (accessed 04 08, 2019).
- Matzen, Erik, and Tom Daly. *Greenland's courting of China for airport projects worries Denmark*. 03 22, 2018. <https://www.reuters.com/article/china-arctic-greenland/greenlands-courting-of-china-for-airport-projects-worries-denmark-idUSL4N1QP346> (accessed 04 09, 2019).
- McCarthy, Niall. *The Top 15 Countries For Military Expenditure In 2016*. 04 24, 2017. <https://www.forbes.com/sites/niallmccarthy/2017/04/24/the-top-15-countries-for-military-expenditure-in-2016-infographic/#283576b643f3> (accessed 02 09, 2019).
- McDowell Group. *The Economic Benefits of Alaska's Mining Industry*. Anchorage: The McDowell Group, 2018.
- Mearsheimer, John. *Tragedy of Great Power Politics*. W.W. Norton & Company, 2001.
- Melia, N., K. Haines, and E. Hawkins. "Sea Ice Decline and 21st Century trans-Arctic Shipping Routes." *Geophysical Research Letters*. AGU Publications, 2016.
- National Strategy for the Arctic Region*. Washington DC: The White House, 2013.
- NATO Public Diplomacy Division. *Defence Expenditure of NATO Countries (2011-2018)*. Press Release, NATO Public Diplomacy Division, 2018.
- Nilsson, Annika. "The United States and the Making of an Arctic Nation." *Polar Record*. Cambridge University Press, 05 23, 2018.
- North Atlantic Treaty Organization. *NATO's purpose*. 04 18, 2018. [https://www.nato.int/cps/ua/natohq/topics\\_68144.htm](https://www.nato.int/cps/ua/natohq/topics_68144.htm) (accessed 03 06, 2019).
- Nouwens, Meia, and Lucie Beraud-Sudreau. *Global defence-industry league: where is China?* 08 28, 2018. <https://www.iiss.org/blogs/military-balance/2018/08/china-global-defence-industry-league> (accessed 03 14, 2019).
- Olesen, Mikkel Runge. "Arctic Rivalries: Friendly Competition or Dangerous Conflict? ." *DIIS Working Paper*. Copenhagen: Danish Institute for International Studies, 01 01, 2017.
- Organski, A.F.K, and Jacek Kugler. *The War Ledger*. Chicago : The University of Chicago Press, 1980.

- Organski, A.F.K. *World Politics*. New York: Alfred A. Knopf, Inc. , 1968.
- Paraskova, Tsvetana. *Russia's Huge Natural Gas Pipeline To China Nearly Complete*. 09 06, 2018.  
<https://oilprice.com/Latest-Energy-News/World-News/Russias-Huge-Natural-Gas-Pipeline-To-China-Nearly-Complete.html> (accessed 03 12, 2019).
- Parello-Plesner, Jonas. *Will China become an Arctic Observer?* 05 14, 2013.  
[https://www.ecfr.eu/blog/entry/will\\_china\\_become\\_an\\_arctic\\_observer](https://www.ecfr.eu/blog/entry/will_china_become_an_arctic_observer) (accessed 04 04, 2019).
- Passut, Charlie. *China Firms, Alaska Reaffirm Plans to Advance Alaska LNG Project*. 10 08, 2018.  
<https://www.naturalgasintel.com/articles/115997-china-firms-alaska-reaffirm-plans-to-advance-alaska-lng-project> (accessed 04 20, 2019).
- Pezard, Stephanie. "The New Geopolitics of the Arctic, Russia's and China's Evolving Role in the Region." Santa Monica: RAND Corporation, 2018.
- Plouffe, Joel. *U.S. Arctic Foreign Policy in the Era of President Trump: A Preliminary Assessment*. Calgary: Canadian Global Affairs Institute , 2017.
- Romei, Valentina, and Hannah Murphy. *Boom, bust and boom again: Iceland's economy in charts*. 03 17, 2017. <https://www.ft.com/content/26270ef4-0a35-11e7-97d1-5e720a26771b> (accessed 04 06, 2019).
- Rosen, Julia. *The World Needs Copper. Does It Need This Controversial Mine?* 11 15, 2017.  
<https://news.nationalgeographic.com/2017/11/pebble-mine-alaska-copper-epa-trump-environment/> (accessed 02 25, 2019).
- Rosen, Yereth. *Controversial Alaska gold-copper mine moves step closer to approval*. 02 21, 2019.  
<https://www.reuters.com/article/us-usa-alaska-mine/controversial-alaska-gold-copper-mine-moves-step-closer-to-approval-idUSKCN1QA041> (accessed 02 25, 2019).
- Roseth, Tom. "Russia's China Policy in the Arctic." *Strategic Analysis*, 11 18, 2014: 841-859.
- Russell, Martin. *Seven Economic Challenges for Russia, Breaking out of Stagnation?* Brussels: European Parliamentary Research Service, 2018.
- Schulze, Vincent-Gregor. "Arctic Strategies Round-up 2017." German Arctic Office at the Alfred Wegener Institute: Helmholtz Centre for Polar and Marine Research, 2017.
- Sheehan, Michael. *The Balance of Power, History and Theory*. New York: Routledge , 1996.
- Sigurdardottir, Ragnhildur. *Iceland Plans to Shut the Door on Chinese Investors, Again*. 08 06, 2017.  
<https://www.bloomberg.com/news/articles/2017-09-05/iceland-plans-to-shut-the-door-on-chinese-investors-again+&cd=9&hl=en&ct=clnk&gl=cz> (accessed 04 06, 2019).



- Silverstein, Ken. *Is The Arctic Ocean Awash With Economic Hope Or Ecological Risks?* 05 01, 2017. <https://www.forbes.com/sites/kensilverstein/2017/05/01/is-the-arctic-ocean-awash-with-economic-hope-or-ecological-risks/#1db3e90478e9> (accessed 02 23, 2019).
- Simpson, John. *How Greenland could become China's Arctic base.* 12 18, 2018. <https://www.bbc.com/news/world-europe-46386867> (accessed 04 08, 2019).
- Snow, Shawn. *The Corps' largest rotational deployment to Norway kicks off.* 10 01, 2018. <https://www.marinecorpstimes.com/news/your-marine-corps/2018/10/01/the-corps-largest-rotational-deployment-to-norway-kicks-off/> (accessed 03 10, 2019).
- Sopher, Peter. *A deepwater port in Alaska's Arctic is essential for U.S. national security.* 03 06, 2018. [https://www.arctictoday.com/deepwater-port-alaskas-arctic-essential-u-s-national-security/?wallit\\_nosession=1](https://www.arctictoday.com/deepwater-port-alaskas-arctic-essential-u-s-national-security/?wallit_nosession=1) (accessed 01 28, 2019).
- Stauffer, Peter. *Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle.* Meleno Park: United States Geological Service, 2008.
- Stronski, Paul, and Nicole Ng. "Russia and China in Central Asia, the Russian Far East, and the Arctic." *Cooperation and Competition.* Washington D.C.: Carnegie Endowment for International Peace, 02 28, 2018.
- Sun, Yun. "The Intricacy of China's Arctic Policy." Stimson, 08 27, 2018.
- The Associated Press. *Alaska signs gas pipeline project deal with China.* 11 09, 2017. <https://www.cbc.ca/news/canada/north/alaska-signs-gas-pipeline-china-1.4394680> (accessed 02 23, 2019).
- The State Council Information Office of the People's Republic of China. "China's Arctic Policy." January 26, 2018.
- The World Bank. *Indicators.* 03 14, 2019. <https://data.worldbank.org/indicator> (accessed 03 14, 2019).
- Thordarsson, Gudlaugur Thor. *Iceland-China relations will continue to strengthen.* 09 06, 2018. <http://global.chinadaily.com.cn/a/201809/06/WS5b90702ba31033b4f465477b.html> (accessed 04 06, 2019).
- Tselichtchev, Ivan. *Chinese in the Russian Far East: a geopolitical time bomb?* July 2017. <https://www.scmp.com/week-asia/geopolitics/article/2100228/chinese-russian-far-east-geopolitical-time-bomb> (accessed 03 14, 2019).
- United Nations Generally Assembly. *World 'Nearing Critical Point of No Return' on Climate Change, Delegate Warns, as Second Committee Debates Sustainable Development.* 10 15, 2018. <https://www.un.org/press/en/2018/gaef3500.doc.htm> (accessed 04 14, 2019).
- United Nations UNCLOS. "United Nations Convention on the Law of the Sea." 1982.

- US Department of Defense. *Report to Congress on Strategy to Protect United States National Security Interests in the Arctic Region*. Report to Congress, Washington: Department of Defense, 2016.
- US Energy Information Administration. *Arctic oil and natural gas resources*. 01 20, 2012.  
<https://www.eia.gov/todayinenergy/detail.php?id=4650> (accessed 02 24, 2019).
- USGC Office of Waterways and Ocean Policy. *Major Icebreakers of the World*. 05 01, 2017.  
<https://www.dco.uscg.mil/Portals/9/DCO%20Documents/Office%20of%20Waterways%20and%20Ocean%20Policy/20170501%20major%20icebreaker%20chart.pdf?ver=2017-06-08-091723-907> (accessed 01 28, 2019).
- Waltz, Kenneth. *Theory of International Politics*. McGraw-Hill, 1979.
- Wang, Muyin, and James E. Overland. "A sea ice free summer Arctic within 30 years: An update from CMIP5 models." *Geophysical Research Letters* , 2012: 2097-2101.
- Watts, Johnathan. *Military buildup in Arctic as melting ice reopens northern borders*. 01 24, 2019.  
<https://www.theguardian.com/world/2019/jan/24/military-buildup-in-arctic-as-melting-ice-reopens-northern-borders> (accessed 03 10, 2019).
- Wegge, Njord. "The Emerging Politics of the Arctic Ocean, Future Management of Living Marine Resources." *Marine Policy*, 2015: 331-338.
- Welch, Craig. *Some Arctic ground no longer freezing—even in winter*. 08 20, 2018.  
<https://www.nationalgeographic.com/environment/2018/08/news-arctic-permafrost-may-thaw-faster-than-expected/> (accessed 04 15, 2019).
- Westad, Odd Arne. *The Global Cold War*. Cambridge: Cambridge University Press, 2005.
- Wishnick, Elizabeth. *China's Interests and Goals in the Arctic: Implications for the United States*. Carlisle Barracks Virginia: United States Army War College, 2017.
- Wong , Kristina, and Sean Lengell. *DeMint: Law of the Sea Treaty now dead*. 07 16, 2012.  
<https://www.washingtontimes.com/news/2012/jul/16/demint-says-law-sea-treaty-now-dead/> (accessed 01 29, 2019).
- Wright, Glenn. "Alaska Are We the Waiting?" *The California Journal of Politics and Policy*. University of California , 2017.
- Wyland, Scott. *Coast Guard icebreaker funding reallocated to US-Mexico border wall*. 08 04, 2018.  
<https://www.stripes.com/news/coast-guard-icebreaker-funding-reallocated-to-us-mexico-border-wall-1.540857> (accessed 01 28, 2019).
- Zinnes, Dina. "An Analytical Study of the Balance of Power Theories." *Journal of Peace Research*, 1967: 270-287.

## **List of Appendices**

Appendix no. 1: Arctic sea routes (map)

Appendix no. 2: Sea route accessibility forecast (table)

Appendix no. 3: Arctic hydrocarbon basins (map)

Appendix no. 4: Arctic sea ice cover forecast (map)

Appendix no. 5: Permafrost extent (map)

Appendix no. 6: Arctic military asset location/sea claims (map)