

THE ARCTIC'S IMPORTANCE TO INTERNATIONAL SECURITY¹

A IMPORTÂNCIA DO ÁRTICO NA SEGURANÇA INTERNACIONAL

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Abstract

The Arctic region is inhospitable and difficult to reach. It was only in 1905 that Norwegian explorer Roald Amundsen crossed the Bering Strait (BS) into the Pacific Ocean. In the vast icy areas that extend from Greenland to Canada, Russia, the United States of America, and Norway, temperatures can drop as low as -46°C, making human activity in the region extremely difficult. Today, due to the effects of global warming, which have caused the icecaps to retreat, more areas have become accessible and the Northern Sea Route and Northwest Passage are navigable for longer periods. In addition to this, new shipping technologies have enabled exploitation in areas and at depths that were previously inaccessible and that hold valuable

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resources for the production of goods and services for a growing world population. This makes the region particularly attractive and a fertile ground for disputes, mainly between the USA, Russia, Canada, Norway, and Denmark. This study provides a characterisation of the Arctic, identifies the different strategies, disputes, and military forces to understand the region's dynamics and how they could affect global stability. It was concluded that the chances of a diplomatic resolution are high and that the region is unlikely to become a focus of instability.

Keywords: Arctic, Global Warming, Maritime Routes, International Relations.

Resumo

O Ártico é uma área inóspita, de difícil acesso, onde só em 1905 o explorador norueguês Roald Amundsen conseguiu atravessar o Estreito de Bering (EB) e alcançar o Oceano Pacífico. As grandes superfícies geladas com temperaturas que descem aos -46° Celsius e podem estender-se da Gronelândia ao Canadá, à Rússia, aos Estados Unidos da América (EUA) e à Noruega, tornam esta região extremamente dura para a atividade humana. Com o aquecimento global a camada de gelo recua, deixa mais áreas acessíveis, e a Rota do Nordeste e do Noroeste estão transitáveis durante mais tempo. Simultaneamente, a evolução da tecnologia permite a exploração em áreas e profundidades antes inacessíveis e cujos recursos são valiosos para a produção de bens e serviços para uma população mundial em crescimento, tornando a região motivo especial de interesse e correspondentes conflitos, em especial, para os EUA, a Rússia, o Canadá, a Noruega e a Dinamarca. Neste contexto, através do presente estudo, caracterizou-se o Ártico, identificaram-se as estratégias em confronto, os conflitos existentes e o dispositivo militar, a fim de compreender a influência desta dinâmica regional na estabilidade global, tendo-se concluído que a probabilidade de resolução diplomática dos conflitos é elevada, não sendo provável que a região constitua um foco de instabilidade.

Palavras-Chave: Ártico, Aquecimento Global, Rotas Marítimas, Relações Internacionais.

Introduction

The Arctic has remained under-exploited due to its geographic and climatic characteristics, which combine extreme cold and relative inaccessibility (Filipe, 2017). The melting icecaps and the development of new technologies have brought about important changes that will not only affect coastal states, but will also have global economic, environmental, and even military repercussions (Marshall, 2017).

One of these changes is the fact that the receding ice has made the Northwest Passage (NWP) in the Canadian Arctic Archipelago navigable for several weeks during the summer, significantly reducing travel times. However, it cannot be ignored that while climate change

makes navigation easier, it has adverse effects on countries' economies, notably due to fishing stocks moving northwards (Marshall, 2017).

As for the region's natural resources, the United States Geological Survey (USGS) reports that the Arctic region holds much of the world's undiscovered natural gas reserves, as well as copper, gold, zinc, lead, and nickel among other minerals (USGS 2008).

The value of these resources is the cause of disputes, especially among the Arctic Coast States² (ACS). One such case is the dispute between Russia and Norway concerning the delimitation of the Economic Exclusion Zone (EEZ) in the Barents Sea, described below. These disputes have not yet been fully settled, but are gradually being resolved by diplomatic means.

For Aron (2002, p.99), "on the international scene [power is] the capacity of a political unit to impose its will on others". Based on this definition, "power dynamics" can be understood as the manner in which States interact with each other politically and within the context of international relations, in a collision of opposing wills.

The following Research Question was elaborated as the starting point of the study: What are the international security consequences of the power dynamics among the Arctic Coastal States?

The methodology used in the study consisted of a qualitative research strategy and a casestudy research design with inductive reasoning. To collect the data, a documentary and literature review was carried out and semi-structured interviews were conducted with experts on the topic.

1. Literature review

Although there are more doubts than certainties regarding the future of the Arctic, its strategic importance has led to the publication of several scientific and political studies over recent years.

One environmental issue is that the Arctic icecap is melting and scientists are uncertain about how ecosystems will be affected (Østerud & Hønneland, 2014).

Some villages in the Bering Sea have already been relocated due to coastal erosion and the loss of hunting grounds as wildlife moves to new areas in search of food. Some climate projection models estimate that by the end of the century Arctic summer ice may have disappeared (Marshall, 2017).

The melting ice has opened up new shipping routes that provide some economic advantages, attracting the interest of several actors, such as Russia, as Northern Sea Route (NSR) coastal state, China as a potential user (Filipe, 2017), and Canada and the US, the countries which have coasts along the NWP.

Its potentially abundant natural resources, especially hydrocarbons, also draw attention to the Arctic (USGS, 2008).

² Canada, Denmark, USA, Norway, and Russia.

During the Cold War era the Arctic Circle (AC) was an area of strategic confrontation, highly militarised and politically sensitive (Østerud & Hønneland, 2014). Today, in addition to having become an arena for resource competition, the region has maintained its high geostrategic value (Guedes, 2018) and there has been an increase in military presence and in the military forces ready to deploy there.

Meanwhile, the growing interest in the Arctic has spurred some ACS to review their military policies and strategies (Ferrão, 2018).

Leal (2012) argues that, in the Arctic, latent disputes coexist with international cooperation, and that this factor can contribute to stability. Heininen (2015) makes a similar point when he notes that one of the biggest misconceptions about the Arctic is the idea that a scramble for resources is going on, and that it will trigger conflicts in the region. The author goes on to remark that, despite some tension between states, the Arctic of the postCold War era is a largely stable region thanks to multilateral cooperation among states, indigenous peoples, and non-state organizations.

On the other hand, even though they acknowledge that the strategies of the Arctic States are largely cooperative, Huebert et al (2012) also point out that some countries are making significant military investments which could undermine diplomacy and stability in the region. Balão (2012) also seems to share this opinion, stating that “although political discourse calls for peaceful solutions to the Arctic issues, the fact is that there are many ‘important’ latent conflicts” and that “the Arctic ‘arms race’ has already begun”.

Because opinions are divided, we must analyse in detail not only the strategies of the various States, but also the existing conflicts and their historical evolution, the military forces engaged, and the region’s resources, among other factors, using a holistic approach to study the surrounding circumstances and their consequences, and to understand how those consequences can affect stability at a regional and global level.

2. Physical Factors

2.1. Characteristics of the Arctic

The Arctic is named after the constellation Ursa Major, or “Great Bear”, from the Greek *arktikos* or *artkos* (Dictionary, 2018; Marshall, 2017, p.24).

The Arctic is the region surrounding the North Pole, which consists of the Arctic Ocean (AO) and is surrounded by the planet’s northernmost landmasses (Figure 1).



Figure 1 – The Arctic

Source: NSIDC (2018).

This study is delimited to the space north of the AC, an imaginary line running 66°34' N of the Equator (NSIDC, 2018). At this latitude the sun does not set after the summer solstice and does not rise after the winter solstice.

Although the AO is the smallest of the earth's oceans (14,000,000 km²), it is still an immense oceanic area permanently covered in ice and surrounded by continental masses belonging to the ACS (O'Rourke, 2018).

The Arctic climate is extremely cold. During winter, temperatures can drop to below 46°C with very strong winds. During the summer, in the more southern regions, the sun can hit the ice for 24 hours straight, causing large icebergs to break off, which poses a danger to ships.

2.2. Population

With approximately 4 million inhabitants (Figure 2), the AC is the least populated region in the world. The Arctic's main population centres are: in Russia, Murmansk with 300,000 people, Norilsk with 170,000, and Vorkuta with 60,000; in Iceland, Reykjavík with 100,000 and; in Norway, Tromsø with 71,000 inhabitants. The Arctic is mainly inhabited by Caucasians, but it is also home to various indigenous peoples such as Yakuts, Inuits, Dolgans, Evenks, Evens, Karelians, Nenets, Chukchi, and Koryaks (The Arctic, 2018).

Half of the population are Russians, and the remaining are from the US, Canada, Denmark, Iceland, Norway, Sweden, and Finland (Figure 2), and more than 500,000 belong to indigenous peoples.

Arctic Population
Country's Population Within Arctic Areas
■ 2000 ■ 2015

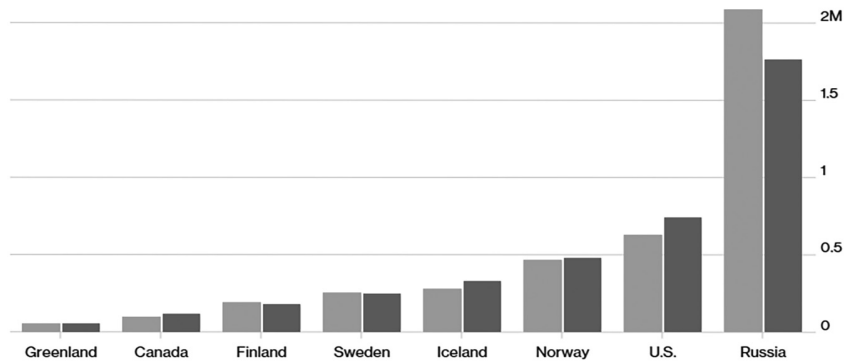


Figure 2 – Arctic Population

Source: Heleniak (2014).

2.3. Arctic Seas and Bathymetry

Bathymetry is the study of the underwater depth of oceans, lakes, and rivers for use by mapmakers.

Shown in Figure 3 is the bathymetry of the Arctic, which has two large oceanic basins, the Eurasian and Amerasian basins, divided by an undersea mountain ridge, the Lomonosov Ridge. The Eurasian basin reaches 4200 metres at its maximum depth and is surrounded by a narrow Continental Platform (CP). The Amerasian basin has an average depth of 3750 metres, is larger than the Eurasian basin, is and surrounded by a wide CP (Sechrist, Fett, & Perryman, 1989, pp.2-1). The Lomonosov Ridge crosses the North Pole and is approximately 2000 km long (NATO, 2009).

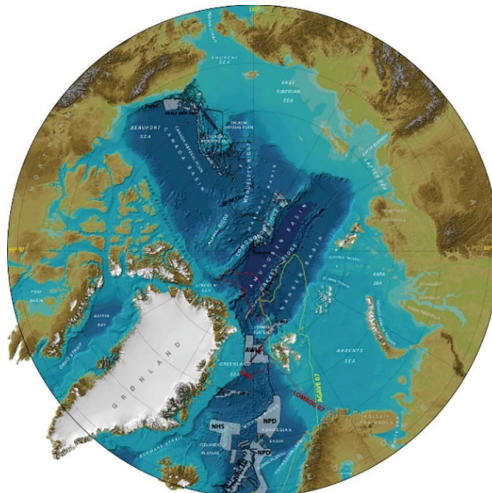


Figure 3 – Bathymetry of the Arctic Ocean

Source: Geográfico (2018).

The geography of the Arctic seabed influences the currents that run from the AO to the Atlantic and Pacific Oceans with which it communicates. This in turn influences oceanic temperatures, ice formation, melting, and salinity levels, and has an impact on the climate.

On the American coastline, the AO includes the Beaufort Sea (north of the northernmost regions of Alaska and Canada) and Baffin Bay (between the Canadian island of Baffin and Greenland). East of the Greenland coastline is the Greenland Sea. Between Iceland, the Sea of Greenland, and the coast of Norway is the Norwegian Sea. Furthest to the north is the Barents Sea, which borders Norway, the Kola Peninsula, the Russian islands of Novaya Zemlya, and the Norwegian Sea. The Kara Sea lies between the Novaya Zemlya islands to the west, the Russian mainland coast, and the Severnaya Zemlya archipelago. The Laptev Sea is located between the Severnaya Zemlya archipelago and the New Siberian Islands, and the East Siberian Sea is between the Laptev Sea and the Chukchi Sea. The Chukchi Sea lies between the East Siberian Sea and the Beaufort Sea, connects with the Pacific Ocean at the BS, and extends from the Russian to the American coast.

2.4. Resources

The Arctic is rich in hydrocarbons such as oil and natural gas, but it also has lead, zinc, gold, silver, nickel, uranium, and diamond reserves. The permafrost³ and seabed are also rich in methane, a gas that, despite being largely responsible for global warming, could become an important source of energy in the future (Leal, 2012).

Alaska has significant oil reserves. Canada also has large amounts of oil and natural gas, as well as diamonds and uranium. Greenland's mines yield diamonds, rubies, gold, nickel, uranium, zinc, and bauxite (rough aluminium). Norway, too, has significant oil and natural gas reserves. Russia's reserves are rich in oil, coal and natural gas, iron and bauxite, nickel, diamonds, gold, platinum, nickel, copper, cobalt, tin and other mineral resources, as well as important fresh water and sea product reserves (Leal, 2012).

Although the size of these oil and natural gas reserves is yet to be determined, and even though exploiting them is very costly (and technologically challenging), the estimated reserves are certainly tempting. However, because most of these reserves are thought to lie in offshore areas, in shallow waters in the EEZs, they are not likely to be the target of future territorial disputes (Costa, 2016).

2.5. Sea routes

The effects of global warming on the melting icecaps are expected to increase the navigability period of existing routes (Costa, 2018). As mentioned above, those routes are the NWP, which comprises seven different routes, and the NSR (Figure 4).

³ Permafrost (or permanently frozen soil) is soil, sediment or rock that remains at temperatures below 0 °C for a period of no less than two years. It occurs either on land or offshore and its thickness varies from 1 metre to over 1000 metres (NSIDC, 2018).

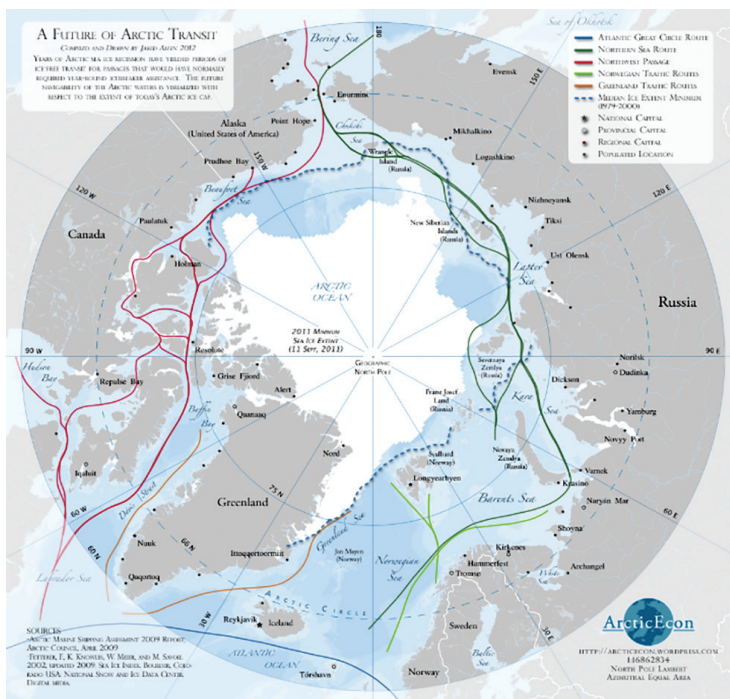


Figure 4 – Sea Routes

Source: ArcticEcon (2012).

Thanks to new shipping technologies, global warming, and the melting icecaps, the NSR will be navigable for longer periods, removing the need for ice-breaking vessels and significantly reducing distances by about 35% to 60% in some cases, saving time and money in comparison to the Suez and Panama Canal routes (Titley & St. John, 2010, p.5).

2.6. Climate change

Most scientists agree that climate change is caused by human interference and that it has altered the composition of the atmosphere. These changes were caused by the use of fossil fuels, by urbanization, and by changes in land use, and the rate at which they are occurring is still largely unknown. Nevertheless, the pace and impact of these changes is clearly increasing, bringing with it extreme temperatures and precipitation, a reduction in seasonal and perennial snow and ice (Figure 5), and rising sea levels. The Fifth Assessment Report of the Intergovernmental Panel on Climate Change states that the total surface temperature of the world's landmasses and seabeds rose by 0.65 to 1.06°C from 1880 to 2012 (IPCC, 2013). Furthermore, between 1901 and 2012, there was an overall increase in the earth's surface temperature (NSIDC, 2018).

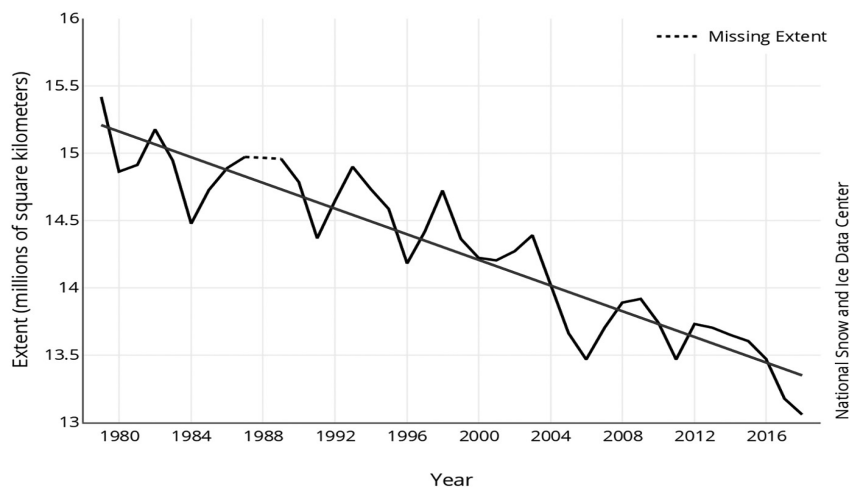


Figure 5 – Arctic sea ice extent

Source: NSIDC (2018).

The Fourth Assessment Report of the Intergovernmental Panel on Climate Change points to atmospheric concentrations of greenhouse gases as the main cause for rising temperatures, followed by the burning of fossil fuels and changes in land use, and correlates them with the increase of atmospheric carbon dioxide, methane, and nitrous oxide. In the cryosphere regions, the ice provides direct visual evidence of temperature changes, confirming the effects of global warming and climate change.

2.7. Summary

The Arctic is an inhospitable region with harsh climatic conditions and low population density. Studies have shown that the Arctic is rich in resources, especially hydrocarbons, minerals, and diamond reserves. The Arctic's inaccessibility has been a barrier to maritime circulation, partly because the melting ice only renders it navigable for a short period but also because of the danger of encountering icebergs during that period.

The Arctic's ice-covered area is decreasing at a rapid pace, opening up new routes that reduce travel distances and costs and provide more accessible ways to explore existing resources.

3. Arctic Strategies

In order to understand the national policies and interests of the main actors in the Arctic region, we must first identify the different strategies they intend to use to safeguard their interests and position in the region. This chapter describes the strategies of the five ACS. Since the sequence of analysis is not particularly relevant to the arguments that will be presented, the strategies will be listed in alphabetical order by country name.

3.1. Canada's strategy

Canada's strategy for the Arctic is outlined in the document titled *Canada's Northern Strategy: Our North, Our heritage, Our future* (Canada, 2009) and in the *Statement on Canada's Arctic Foreign Policy* (Canada, 2010).

Canada's integrated strategy for the North⁴ is based on four objectives:

- Exercising its Arctic sovereignty;
- Promoting social and economic development;
- Protecting the region's environmental heritage;
- Improving and restoring Northern governance.

Canada considers the Arctic region a vital part of its national identity and intends to secure its sovereign rights. The policy for the North is based on cooperation with the region's aboriginal populations⁵ and on the importance of their legacy, which is a vital part of Canadian history and culture. The Canadian government wants to have a strong presence in the Arctic, ensuring the ability to protect and patrol the region by land, sea and air, using military means and investing in new capabilities (Canada, 2009).

The government intends to invest in the development of critical infrastructures and in the well-being of the communities as a way to strengthen economic activity. To that end, it has made efforts to increase regional engagement, to identify innovative commercial opportunities that can increase the self-sufficiency of local communities, and helping to position Canada as a global leader in Arctic science and research (GOC, 2017).

The country's priorities in terms of environmental protection and preservation of resources are becoming a leading authority on the Arctic and protecting its coasts and waters. This comprehensive approach to environmental protection had the country invest in building new natural parks and expanding existing ones, in systems to tackle marine pollution, and in cleaning and repairing industrial areas to reduce their environmental impact⁶ (Quinn, 2017).

The last objective in Canada's strategy is changing the region's governance model, transferring the area's administration from the central government to the territorial governments. In the joint United States-Canada Joint Arctic Leaders' Statement, Prime Minister Justin Trudeau committed to developing a new policy for the Arctic in collaboration with the North's territorial and provincial governments and with the involvement of the Inuit and Métis People and intends to replace the 2009 strategy in the short term (GOC, 2017).

⁴ The region is known as Arctic Canada and includes the territory north of the 60th parallel north, the Arctic Archipelago, and the Northwest Territories, Yukon, and Nunavut.

⁵ The Inuit and Métis Peoples, Canada's indigenous peoples, also known as First Nations.

⁶ In 2016, Prime Minister Trudeau announced a \$1.5 billion investment in environmental protection in the Arctic, and in August 2017 Canada's transport minister, Marc Garneau, announced that \$175 million would be allocated to protection and security in the North seas.

3.2. Denmark's Strategy

Denmark's⁷ strategy is outlined in *Greenland and Faroe Islands: Kingdom of Denmark Strategy for the Arctic 2011-2020*. The strategy aims to strengthen the country's position in the Arctic and is based on four objectives (Dinamarca, 2011):

- Contributing to a peaceful and safe Arctic;
- Ensuring self-sustaining growth in the Arctic;
- Respecting the region's environment and nature;
- Strengthening cooperation with international partners.

The strategy is based on the belief that international law, in particular the United Nations Convention on the Law of the Sea (UNCLOS), and established forums of cooperation provide a sound basis for conflict resolution and constructive cooperation in the development of the Arctic. Its aim is to resolve existing disputes through negotiation, without excluding the use of the Armed Forces (AAFF) to protect the country's sovereignty and interests (Dinamarca, 2011).

Another of its aims is to ensure self-sustaining growth by protecting and promoting the management of living marine resources, by reinforcing scientific cooperation with research centres, and by attracting investors to build new fishing, mining, and tourism industries to develop the region's populations and economy.

In regards to the environment, Denmark is committed to raising awareness of the consequences of climate change and their impact on the region based on scientific data (Dinamarca, 2011).

The strategy's last objective is to foster cooperation relations, especially with the Arctic Council (AC)⁸, the European Union, and the ACS.

3.3. USA's Strategy

The US strategy is outlined in the *National Strategy for the Arctic Region* (USA, 2013) and is complemented by a Department of Defence report on Arctic strategy, titled *Report to Congress on Strategy to Protect United States National Security Interests in the Arctic Region* (DoD, 2016) which the main objectives are the same as the ones defined in the National Strategy:

- Enhancing the region's security and defence;
- Preserving freedom of navigation in the Arctic;
- Supporting International Organizations that promote regional cooperation;
- Promoting environmental protection and preservation of resources;
- Leading scientific research in the region;
- Involving the region's communities in the decision process.

⁷ "Denmark" refers to the community of nations comprising Denmark, the Faroe Islands, and Greenland.

⁸ The Arctic Council is an intergovernmental forum that promotes cooperation, coordination, and interaction between the Arctic States (Canada, Denmark, Finland, Iceland, Norway, Russia, Norway, and Sweden), the Arctic's aboriginal communities, and all others who inhabit the area, in matters of common interest, particularly those pertaining to sustainable development and environmental protection.

The US Arctic strategy views the exercise of sovereignty and national security from a unique perspective that encompasses military, environmental, and energy policy measures to enhance the country's land, sea, and air defence capabilities, ensuring freedom of navigation and overflight, and investing in missile defence and early warning systems (DoD, 2016, p.3). The US priorities are developing the exploitation of oil, gas, and mineral resources, and guaranteeing free trade. Assuming that cooperation should be based on international institutions and international law, the document states the nation's intention to work toward accession to the UNCLOS and to promote its interests through the AC. In order to remain at the forefront of Arctic research, the US is committed to international scientific cooperation by fostering research in the region to preserve and conserve the environment, and to develop policies by working with indigenous communities and getting them involved in the decisions that affect them (EUA, 2013).

3.4. Norway's Strategy

The Arctic's economic development is a priority for Norwegian foreign policy. Norway's most recent strategy document, titled *Norway's Arctic Strategy* (Noruega, 2017), identifies five priority areas:

- International cooperation;
- Business development;
- Developing knowledge about the region;
- Increasing infrastructures;
- Environmental protection and emergency preparedness.

The Norwegian Government wishes to ensure that the Arctic remains a peaceful, stable, and predictable region where there is international cooperation and respect for international law. It recognises the AC as the most important intergovernmental cooperation mechanism to address the region's issues, which include climate change, the environment, resource management, maritime safety, and cross-border challenges (Noruega, 2017).

Its priorities are: political dialogue and cooperation with Russia in areas of common interest, including fisheries management, search and rescue, nuclear safety, border control, and notification and response to incidents at sea; continuing to exercise authority and sovereignty in the northern sea areas in a predictable, consistent, and unambiguous manner; implementing measures to strengthen Norway's defence capabilities and enhancing the ability of the Armed Forces to conduct joint operations with allied forces by carrying out more frequent exercises and training programmes (Noruega, 2017).

The Norwegian government believes that all commercial activity and business development in the Arctic should be economically, socially, and environmentally sustainable, and that it should increase value creation by Northern companies based on the region's resources and promote cooperation between academia and the business sector to achieve the region's business policy goals.

The country aims to remain at the forefront of knowledge on the Arctic by improving access to knowledge and expertise to increase the business sector's ability to innovate and create value in the north. To that end, it will establish a centre of expertise on ocean and Arctic issues in Tromsø (Noruega, 2017).

The Norwegian government also aims to develop an efficient and secure transport system that will help it transition to a lowemission society. The National Transport Plan for 2018-2029 will give priority to a number of large-scale investment projects in the north⁹, reducing the environmental and climate impacts of ferry traffic and road transport.

In terms of environmental protection, the government aims to safeguard endangered species, ensure sustainable use and conservation of a representative selection of Norwegian nature covering the full range of habitats and ecosystems, reduce greenhouse gas emissions and pollution according to national targets and international commitments, and enhance its emergency preparedness and response capabilities vis-à-vis the increased activity in the Arctic (Noruega, 2017).

3.5. Russia's Strategy

In 2009, the Russian Federation published its strategy for the Arctic, *The fundamentals of state policy of the Russian Federation in the Arctic for the period up to 2020 and beyond*, which highlights two main aspects: positioning Russia as the main Arctic power and developing the potential of the Russian Arctic (Rússia, 2009). Russia's most recent strategy documents, *The Development Strategy of the Arctic zone of the Russian Federation and National Security for the period up to 2020* (Rússia, 2013) and the *Foreign Policy Concept of the Russian Federation* (Rússia, 2016), which replaced the former strategy, aim to implement the interests of the Russian Federation in the region, and establish the following priorities:

- The region's socioeconomic development;
- Developing science and technology;
- Implementing modern information and telecommunications infrastructures;
- Environmental security;
- International cooperation;
- Military security and border protection.

The Russian Federation has important economic, social, environmental and military interests in the Arctic region. To achieve them, it aims to implement a number of measures that will allow it to access, exploit, and develop the region's natural resources, especially hydrocarbons, minerals, and fisheries; to modernise and develop rail, river, coastal, and airport infrastructures, among others; and to improve the well-being and quality of life of the region's indigenous population (Rússia, 2013).

In regards to science and technology, Russia aims to contribute to national and international research on geographic information systems, traffic management, remote sensing of sea

⁹ The Norwegian government has allocated 40 billion kroner to this plan.

ice aerial surveys, and to develop a hydrometeorological and hydrographic support system (Rússia, 2016).

The strategy emphasises infrastructure modernisation and development, and the Russian government has invested in building maritime facilities and implementing a reliable navigation and monitoring system to track activities in the region, including ice conditions, forecasting, and prevention of environmental problems and catastrophes (Schulze, 2017).

Russia is also interested in using the NSR as the main route for international commercial traffic and developing cross Polar air routes, which it deems important for the region, and aims to develop an integrated system to monitor navigation, to expand its icebreaker fleet¹⁰, and to increase coastguard and border patrols (Rússia, 2016).

Intensifying cooperation with the Arctic countries and international organizations, including the AC, the ACS, and the Barents Euro-Arctic Council is one of Russia's strategic priorities to counter any attempts to introduce elements of political or military confrontation in the Arctic (Rússia, 2016, p.15).

3.6. Summary

The analysis presented above reveals that these countries' strategies for the Arctic aim to safeguard their interests in the region by defining priority areas, and that they have largely common interests.

With sovereignty and security as primary objectives, the strategies' main priorities are economic development, scientific cooperation, environmental preservation, sustainable exploitation of resources, and integration of the region's populations.

Because the region is a target for disputes, as we will see in the next chapter, all strategies emphasise international cooperation and diplomatic solutions, preferably in line with the UNCLOS, and recognise the AC as the main forum of discussion.

4. Disputes and military presence

This chapter will address the disputes between the ACS and the military forces operating in the region.

4.1. Maritime borders

Canada has an active dispute with the US in the Beaufort Sea (Figure 6) since 1977, a process in which both countries claim ownership over fishery resources (Jacinto, 2014).

¹⁰ An LK-60 Arktika nuclear ice breaker is due to be delivered in 2019, and another will be delivered in 2020 (Barents Observer, 2016).

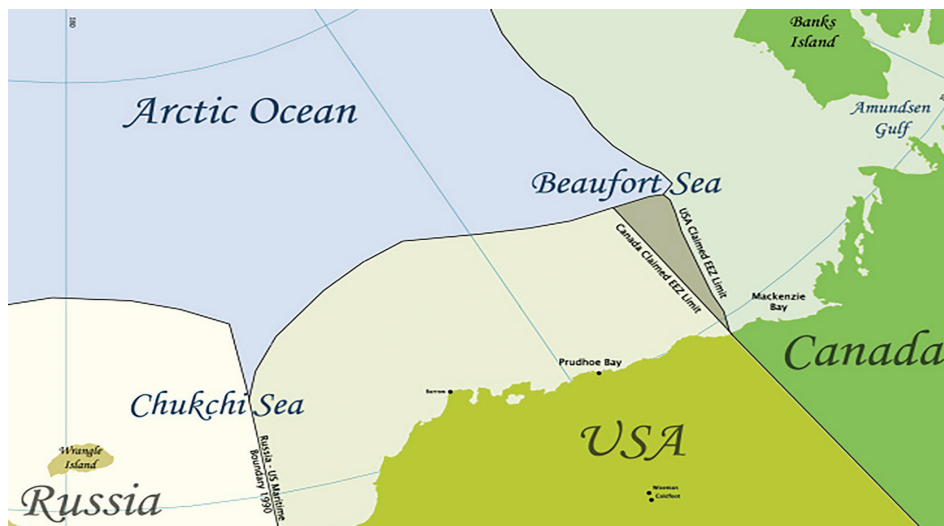


Figure 6 – Disputed Area in the Beaufort Sea

Source: ArcticEcon (2011).

A dispute between Russia and Norway regarding the “Loop Hole” (Figure 7) was settled in 2011 (Bentzen & Hall, 2017). Both countries also hold competing claims over the eastern part of the Western Nansen Basin, and are currently discussing the issue in bilateral talks.

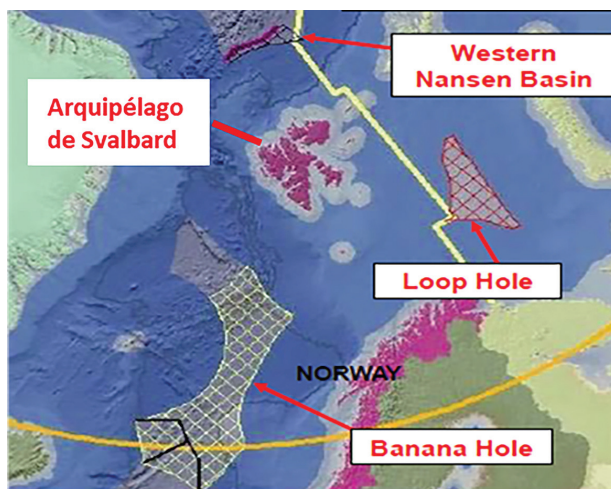


Figure 7 – Areas over which Norway claims ownership

Source: Pay (2009).

Norway has active disputes with several States, including, but not limited to, the United Kingdom, France, and Russia in the Svalbard Archipelago.

This archipelago was handed over to the Norwegian administration through the 1920 Svalbard Treaty, which was signed by several countries. The Treaty states that the resources of

the territorial sea can be exploited by the citizens of the signatory countries. Norway disputes these countries' interpretation that the treaty also applies to the EEZ and to the CP, which would grant them exploitation rights over these areas, arguing that the treaty should be understood in its original form, which refers only to the territorial sea (Churchill & Ulfstein, 2012).

Norway, Iceland, and Denmark's conflicting claims over the "Banana Hole" have been largely resolved, and currently only a small area is still disputed (Leal, 2012, p.343).

Norway and Denmark remain in disagreement over the EEZ limit between Greenland and Jan Mayen. This dispute has been referred to the International Court of Justice. The ICJ proposed a solution (ICJ, 1993), which Norway rejected.

Hans Island is located on the maritime border between Canada and Denmark. Both countries are locked in a dispute over ownership of this uninhabited island in the Nares Strait, on the Kennedy Channel, on top of the boundary agreed in 1973 (Figure 8).



Figure 8 – Canada-Denmark border

Source: Kristiansen (2013).

4.2. Extension of the Continental Shelf

As we saw, there are no major conflicts regarding the EEZs and “none of the border disputes seem to call into question global stability” (Leal, 2012, p.327). A different case is the central area outside the EEZs, which can be claimed through the Continental Shelf Extension (CSE) mechanisms provided for by the UNCLOS.

Pursuant to Article 57 of the UNCLOS, States may extend their EEZ up to 200 nautical miles¹¹ (NM), and are granted exclusive rights to exploit living and nonliving resources in the soil, subsoil, and water column.

Article 76 states that the CS includes the seabed and subsoil and extends from the natural prolongation of the land territory to the outer edge of the continental margin, or to a distance of 200 NM when the outer edge does not extend up to that distance. The UNCLOS also states that, if the natural extension of the territory exceeds 200 NM, States may apply for a CPE up to the edge of that extension, with a maximum limit of 350 NM or a distance not exceeding 100 NM from the 2,500 metre isobath¹² (UN, 1982).

Figure 9 shows the boundaries of the EEZ and the inner area that can be claimed as a CPE if it is proved to be the natural extension of the territory.

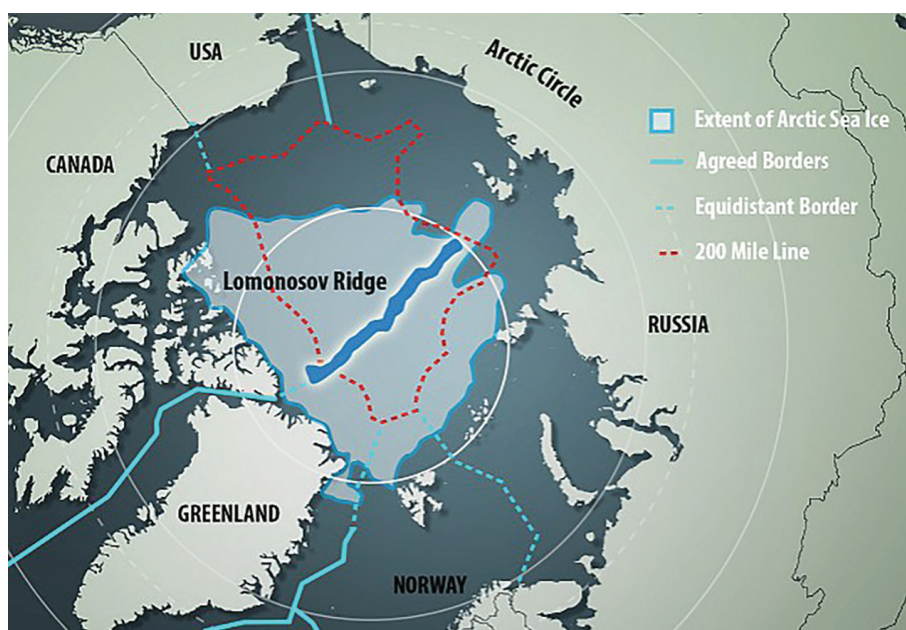


Figure 9 – Lomonosov Ridge

Source: Macfarlan (2014).

In 2001, Russia submitted an application for a CPE, which was rejected due to lack of sufficient support. The revised application, which claims the Lomonosov Ridge as the extension of its landmass, was resubmitted in 2015. The claim is disputed by Denmark and Canada.

Figure 10 shows the overlap between the area claimed by Russia, the area claimed by Denmark in 2013 and 2014, and the area that Canada is expected to claim in 2018.

¹¹ Or 1852 metres.

¹² A line that connects all points that have the same depth.

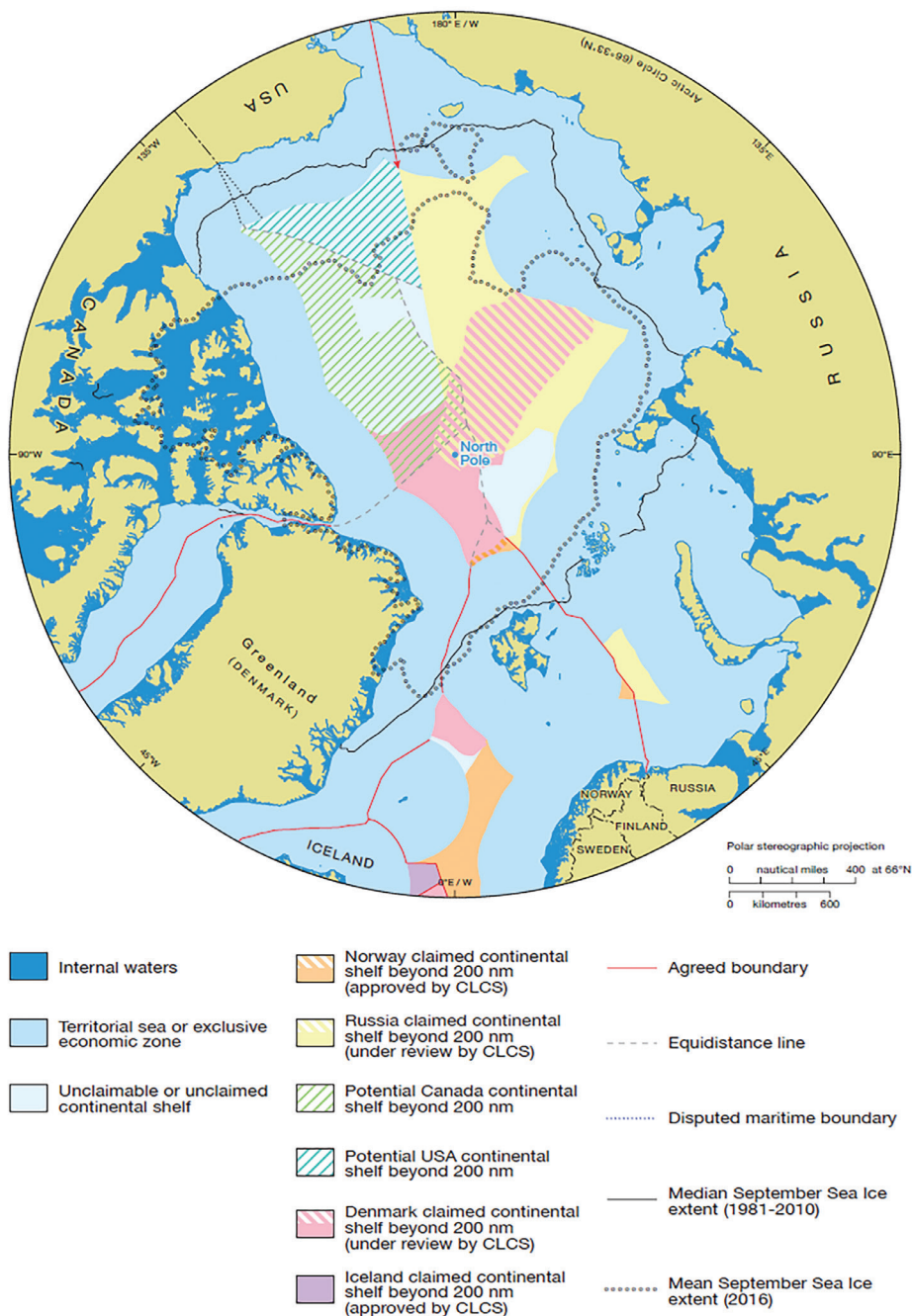


Figure 10 – Areas of overlapping claims

Source: Duhran University (2018).

Although these overlapping claims make the CPE process more complex, this dispute is expected to be resolved in accordance with the rules laid out by the UNCLOS (Guedes, 2018; Leal, 2018).

4.3. Control over routes

Figure 11 shows the BS, the NWP that crosses the Arctic Archipelago, and the NSR along the Russian coast.



Figure 11 – Arctic routes

Source: Reynolds (2005).

In 1990, Russia and the US signed a border agreement over the BS, which the Russian parliament did not ratify because it was decided that it did not represent the country's interests (Kaczynski, 2007). This conflict is still ongoing but not on the current agenda.

The NWP crosses the Arctic Archipelago, and Canada claims that since the route runs through its inland waters, navigation should be unilaterally regulated. To reinforce this claim, the country traced a boundary around the archipelago, shown in Figure 12. This boundary was refused, and several countries, including the US, argue that the passage has the status of International Strait, which precludes navigation from being regulated unilaterally by the coastal state (Leal, 2012).



Figure 12 – Baseline

Source: Cros (2018).

Likewise, Russia considers that the NSR (Figure 14) should be granted inland sea status because it crosses the straits between the Siberia, Leptev, Kara, and Barents seas (Leal, 2012, p.328).

As presented, there are also disputes over the control of routes and at the border of the BS, which do not, however, appear to be serious sources of conflict.

4.4. Military presence

The US is the world's largest military power, which is supported by a top defence budget, as depicted in Figure 13, which represents countries investment in billions of dollars.

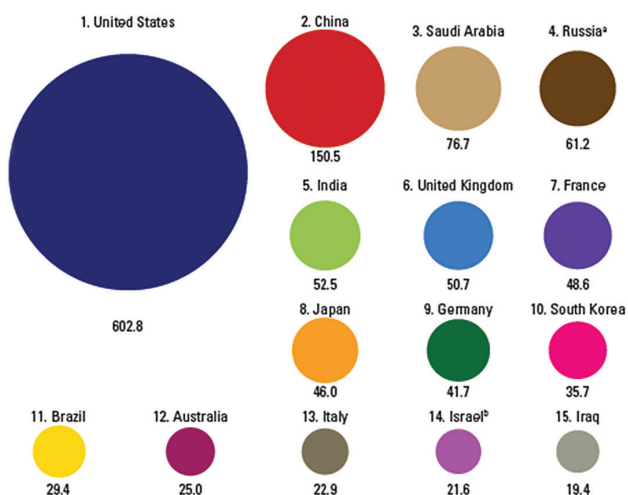


Figure 13 – The world's largest defence budgets, 2017

Source: IISS (2018).

With regard to the number of military and paramilitary troops, Table 1 shows the imbalance between the US and Russia and the other ACS. Russia also has a significant advantage if considers its paramilitary troop numbers and two million reservists. The US leads the table on defence investment, which is ten times higher than Russia's.

Table 1 – Military, paramilitary, and reserves personnel, budget, and population.

	USA	RUSSIA	CANADA	NORWAY	DENMARK
NAVY	323950	150000	8300	4300	2000
ARMY	476250	280000	34800	9350	8200
AIR FORCE	322800	165000	19900	3600	2700
MARINES	184400				
PARATROOPERS		45000			
SPECIAL OPERATIONS		1000			
RAILWAY TROOPS		29000			
STRATEGIC MISSILE TROOPS		50000			
COMMAND AND SUPPORT		180000		6150	3200
RESERVES	857950	2000000	30000	38590	45700
COAST GUARD	41000		4500		
HOME GUARD				550	
PARAMILITARY TROOPS		554000			
TOTAL	2206350	3454000	97500	62540	61800
DEFENCE BUDGET*	602.8	61.2	17	6	3.81
DEFENCE BUDGET %GDP	3.1	4.16	1.03	1.53	1.17
POPULATION (MILLIONS)	324	142	35	5.3	5.6
* Numbers for 2017 in billions of dollars					

Source: IISS (2018).

One aspect that stands out when looking at the policies of the ACS is their alignment in terms of security. Four of the ACS are NATO members, leaving Russia isolated in this regard. This tends to put a damper on Russian pressures on individual states, especially with regard to its disputes with Norway and Canada over the CPE, and also mitigates the effects of disputes between Allied States. An example of this is the agreement signed in 1998 between Canada and the US for cooperation in the Arctic, in which the United States agreed to request authorization for its icebreakers to cross the Arctic Archipelago (GOC, 1998), although the latter does not recognise the area as internal waters. This agreement ensures a special relationship between both countries, facilitating access to American vessels without violating Canadian sovereignty. This could set a precedent that would allow other countries, such as Russia, to do the same, which is not in the interest of the Allied states (Leal, 2012).

Let us examine the military forces deployed to the Arctic, beginning with the military facilities shown in Figure 14. Although the figure does not depict their relative relevance, it can be seen that Russia is ahead in sheer numbers.

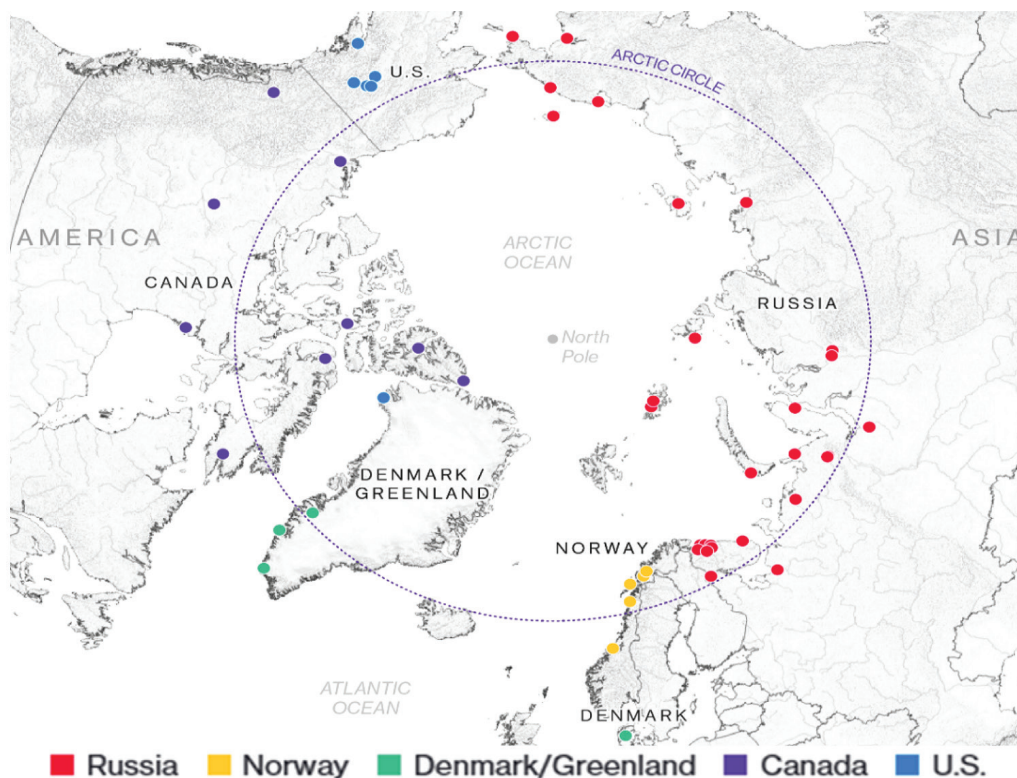


Figure 14 – Military Facilities

Source: Roston & Migliozi (2017).

Russia's most important military facility in the Arctic is the Severomorsk Naval Base in Murmansk, where the Northern Fleet is headquartered (Figure 15).



Figure 15 – Russia's Military Commands

Source: IISS (2018).

This Fleet Command is currently undergoing a transition and will become the Joint Strategic Command Northern Fleet (IISS, 2017).

Russia's other major military facilities are located in the Novaya Zemlya archipelago, in the Kotelny Islands, and in Alexandra Land. The most important base is Novaya Zemlya, where a surface-to-air missile regiment with 300km coverage is stationed. The other two islands have smaller units with anti-aircraft and anti-ship capabilities. In 2016, there were plans to station a mechanised brigade in the Yamal Peninsula, and the Russian Minister of Defence announced plans to create a Coastal Defence Division on the Chukotka Peninsula in the BS in 2018. The remaining bases have small garrisons exclusively for surveillance duties (IISS, 2017).

According to Marshall (2017, p.231) two Mechanised Infantry Brigades with 6000 soldiers are being formed in Murmansk.

Icebreakers are essential for Arctic operations. In this respect, Russia is the best prepared country, as we can see in Table 2.

Table 2 – Largest icebreaker fleets

	Total (+under construction +planned)	State owned or operated			Privately owned or operated		
		Over 45 000 BHP ¹³	20 000 to 44 999 BHP	10 000 to 19 999 BHP	Over 45 000 BHP	20 000 to 44 999 BHP	10 000 to 19 999 BHP
Russia	46 (+11 +1)	6	16	7		9	8
Finland	10		7	1			2
Canada	7 (+2 +5)		2	5			
Sweden	7 (+0 +3)		4				3
USA	5 (+0 +3)	2	1			1	1
Denmark	4						4
China	3 (+1 +0)			3			
Estonia	2			2			
Norway	1 (+1 +0)			1			

Source: O'Rourke (2017).

In the US command structure (Figure 16), Arctic operations are conducted by the North Command (USNORTHCOM) and by the European Command (USEUCOM).

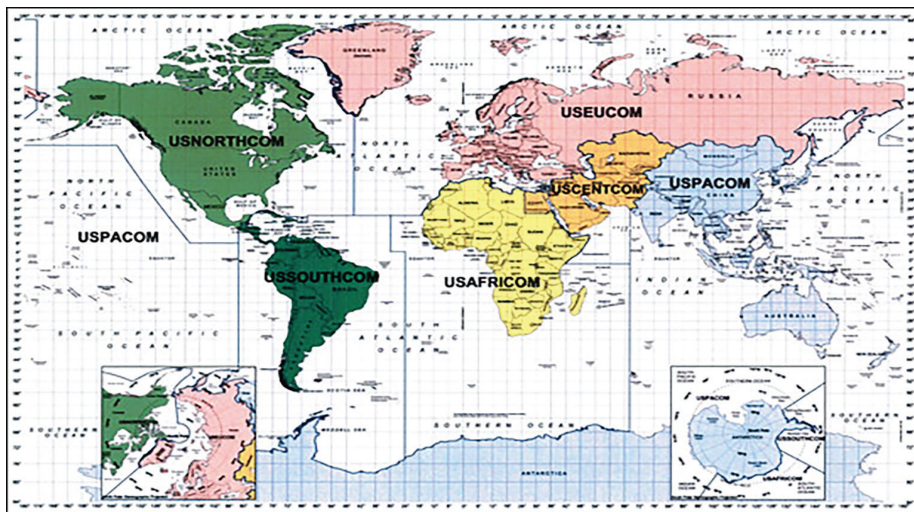


Figure 16 – US regional commands

Source: USDOD (2018).

The US has nine military facilities in Alaska. Three belong to the Air Force (AF), three to the Army, and three to the Coast Guard (USCG). The main American base is the

¹³ BHP – Brake Horse Power; power measured at the motor's output before the losses caused by the remaining components of the drive system.

ElmendorfRichardson Base in Anchorage (Figure 17), which combines one AF base and one Army base, as well as hosting several commands, including the Alaska Command (under NORTHCOM), and the 11th AF, which is assigned to the Pacific Command but is tasked to defend Alaska under NORTHCOM. There are also the Fort Wainwright and Fort Greely Army bases, the Eielson AF base, and the Clear facilities for detection of ballistic missiles. The USCG has facilities in Kodiak, Valdez, and Juneau (Regehr & Jackett, 2017).



Figure 17 – Alaska

Source: WorldAtlas (2018d).

Overall, the US has 22,000 active duty personnel and 4700 reservists stationed in Alaska (Alaskan Command, 2018).

Canada's main Arctic-based facility is Yellowknife Base (Figure 18), the headquarters of the Joint Taskforce North (JTFN), the 1st Canadian Ranger Patrol Group (CRPG1), the 440th Transport Squadron, and an Army Reserve Detachment with 100 reservists (GOC, 2018a). There is also a detachment in Whitehorse, Yukon, and construction has begun on a Naval Base on Baffin Island (Regehr & Jackett, 2017).



Figure 18 - Canada

Source: Worldatlas (2018c).

The CRPG1 has 1750 Rangers for patrol activities, and the 440th Transport Squadron performs air transport and support tasks (GOC, 2018a).

An important part of Canada's military presence in the Arctic is provided by F-18s, which are stationed in the south but operate regularly in the region, and by the icebreakers operated by the Coast Guard (GOC, 2018b).

The Canadian Navy operates 12 frigates and four submarines and its main naval base is located in Halifax (IISS, 2018).

The Canadian Army is creating a battalion of 500 troops and four reserve companies for Arctic operations, and there are plans to increase the number of Rangers in the north to 1900 troops and the Yellowknife Reserves Unit to 200 (Regehr & Jackett, 2017).

Norway's AAFB Headquarters are located in Bodo, which is also home to the country's largest military airport and to the country's F-16 squadrons (NAF, 2018a).

Norway's main military facilities in the Arctic (Figure 19) are situated north of Bodo, near Harstad, and include a Naval Base in Harstad, a Coast Guard fleet in Sortland, an Army regiment in Evenes, an Armoured Battalion and an Artillery Battalion in Setermoen, a Hunters Squadron in Porsanger, a Russian border guard unit at Sor-Varanger / Kirkenes, and the main military helicopter base at Bardufoss.



Figure 19 – Norway

Source: Worldatlas (2018a).

The “Nord” Heavy Mechanised Brigade stationed in Tromsø is Norway’s largest active unit (Regehr & Jackett, 2017).

The Norwegian Navy operates five frigates, six missile patrols, and six submarines, which main naval base is located in Bergen (NAF, 2018b).

The Home Guard has 550 active duty personnel and 45,000 reservists. It is a separate service organized by districts, which can be mobilised at high readiness. The Finnmark District in the Arctic can rapidly mobilise and deploy a 3000-troop force (Regehr & Jackett, 2017).

Denmark’s most northerly military assets are stationed in Greenland and the Faroe Islands. The Joint Arctic Command headquartered in Nuuk (Figure 20) coordinates the activity of the units operating in the Arctic, and has a subcommand in the Faroe Islands (DD, 2017).



Figure 20 – Greenland

Source: Worldatlas (2018b).

Greenland has four military detachments and two Air bases, the Thule Base and the Kangerlussuaq base, from which it can deploy Danish F-16s. The country also has a Navy Seal-like unit comprising 130 Arctic-ready troops, and the Jaeger special forces consisting of 200 troops available for Arctic duty, which are headquartered in Denmark (Regehr & Jackett, 2017).

The navy has three frigates and two command ships based in Korsoer (DD, 2016).

4.5. Summary

The disputes between the ACS have been resolved by diplomatic means and in line with the UNCLOS. Although some remain unresolved, such as the disputes over Hans Island, the Beaufort Sea, the BS, and the Nansen Basin, they have so far been managed diplomatically.

New points of conflict are expected to appear over CPE applications due to overlap in claimed areas. Nevertheless, they are expected to continue to be resolved by diplomatic means.

All Arctic nations intend to strengthen their military presence in the region, especially Russia, Canada, and Norway, but this seems to stem more from defence concerns than to project force.

Conclusions

This study addresses the need to understand the current factors that can change the geopolitics of the Arctic in their physical and military aspects, and in terms of international maritime transport and natural resource exploitation, examining their possible impacts on regional and international security.

This work presented an opportunity to understand how global warming has led to changes in the Arctic. Due to the icecaps melting and technological advances, it is now possible to exploit resources that have so far remained inaccessible, which has increased the region's economic value. Simultaneously, this process made the region easier to access, enabled long-term use of the NWP and NSR, and increased the potential value of coastal areas that were previously unreachable by commercial vessels.

The easier access to resources and the opening of new routes have aroused the interest of the ACS in defending their sovereign rights, which these nations seek to assert by appealing to favourable interpretations of international law in political and diplomatic dispute processes.

The national strategies for the Arctic, which aim to safeguard the interests of the Arctic nations, confirm that they have largely common interests. All strategies emphasise international cooperation and diplomatic solutions, preferably under the auspices of the UNCLOS, and recognise the AC as the main forum for discussion. Thus, in the conflicts identified, especially those regarding the management of EEZ boundaries, diplomatic solutions have gradually been found within the framework of the UNCLOS and through bilateral or multilateral mechanisms, in particular through dialogue in the AC. Some persisting conflicts, such as the disputes over Hans Island, the EEZ between Greenland and Jan Mayen, the Beaufort Sea, the BS, the Nansen Basin, and the disagreement over the status of the Arctic Archipelago have not led to instability and are expected to be resolved through diplomatic action and result in maintaining the status quo.

Applications for CPE set up new grounds for conflict because some areas claimed by Denmark and Russia overlap with future claims by Canada. However, even in this more complex issue, countries seem to be taking a cautious approach, relying on the UNCLOS and its conflict resolution mechanisms. Therefore, it is our opinion that these rather complex and prolonged processes will be resolved through diplomatic solutions acceptable to all parties involved.

A significant unbalance was identified between the US and Russia, on the one hand, and the remaining ACS in terms of military presence. With regards to the balance of power, the fact that four of the ACS are NATO members facilitates the management of disputes between Allies and also serves as a balancing factor and a deterrent for Russia regarding any pressures it might impose on the smaller countries, and thus appears to be a containment factor.

Russia has the strongest military presence in the Arctic, which is reinforced by the fact that half of the region's population is Russian (although its numbers are decreasing). This presence is ensured by its many military facilities and the readiness at which it can deploy naval capabilities, which include the largest icebreaker fleet. For its part, the US has the

largest military budget and projection capability, and can quickly cover great distances to occupy territory if needed. Still regarding the military, the forces stationed in the region are mainly defensive and serve more to occupy territory than to project force or to move into new territories.

In conclusion, the ACS policies for the Arctic have largely been guided by efforts to secure peaceful conflict resolution through diplomacy and containment, and at worst, by maintaining the status quo. These policies are not jeopardised by the military forces that are currently increasing their capabilities to operate in the region, which appear to be essentially defensive.

In light of the above, and to answer the Research Question, the current situation in the Arctic is not expected to lead to regional instability or to any international security concerns in the short or medium term.

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