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STRATEGICZNY WYMIAR ZMIAN W ŚRODOWISKU BEZPIECZEŃSTWA ARKTYKI

THE STRATEGIC DIMENSION OF CHANGES IN THE ARCTIC SECURITY ENVIRONMENT

Abstract:
Technological progress and global warming, including rising temperatures, open new transit routes in the Arctic. The availability of natural resources in the region, including oil and gas, uranium and rare earth elements, is increasing. The war caused by Russia in Ukraine also has consequences for the relations between the states in the Arctic region. The aim of the article is to show that the Arctic region is not immune to changes in global security environment. These changes not only result in a redefinition of the international balance of power. Some countries located beyond the Arctic, with supra-regional aspirations, open to new strategic and economic goals in this region. Consequently, Arctic management system is changing and diversifying. It is becoming necessary to develop a new model for managing this region, considering changes in the security environment and much wider spectrum of international actors than ever before.

Keywords: The Arctic, the Far North, global warming, the security environment, geopolitical uniqueness, model of security management

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Introduction

The Far North has been perceived for decades as a geographically remote area, accessible only to a few actors on the international stage. The Arctic areas, due to their harsh living conditions, cold climate and very limited mobility, were for many years unfriendly to human settlement. However, the warming climate, technological advancement and assertive security policies of a growing number of countries are changing the environment, the role and the importance of the Arctic. The purpose of the article is to demonstrate that this region is not independent of changes in the global security environment; not only because of the growing number of states opening up to new opportunities to pursue interests in the Arctic, but also because of the changing balance of power. As a consequence, we can observe the undermining of the existing Arctic governance system.

The article consists of five chapters corresponding to five main problem areas (i.e.: characteristics of the changing role and place of the Arctic in the global dimension; effects of the thawing of permafrost in the Arctic; geopolitical uniqueness of the Arctic; Arctic policy concepts of selected countries; NATO and the European Union involvement in the Arctic), and ends with a summary. Theoretical research methods, including analysis, abstraction, comparison, synthesis and generalization, were used in the development of the chapters. Analysis made it possible to examine the literature, documents and studies by breaking down the problems into component parts and examining each of them separately. The main difficulty in applying this method consisted in the fact that the materials referred to the impact of climate factors on the Arctic security environment and the policies of countries in the region. Few authors (in particular, materials developed and published by them after February 2022, i.e. after Russia's recent aggression against Ukraine) assumed that strategic security goals are the basis for some states to develop policies which aim to undermine the global international security system, including the Arctic. The abstraction consisted of isolating the elements that influence the strategic nature of the changes taking place in the

region's security environment. The use of comparison and analogy made it possible to apply the experience and practice of states and international organizations (NATO, EU) that could contribute to deepening the importance and significance of the changes taking place in the Arctic security environment. The synthesis made it possible to formulate systemic conclusions, and generalization as a method allowing to reduce the concept to a less detailed form, made it possible to present the Arctic region as an important element of the security environment of the entire globe.

The character of changes in the role and place of the Arctic in the global dimension

The unprecedented scale of changes taking place in the Arctic regions means that the region's position in the global dimension is changing. The international relations literature accepts the definition that the Arctic is the area north of the boundary marked by the Arctic Circle (66º30'39''N), including parts of Russia, Canada, Norway, Sweden, Finland, Alaska (USA), Greenland (autonomous Danish territory), Iceland and the Arctic Ocean[2]. The center of the Arctic is the Arctic Ocean, largely covered by ice. It is surrounded by forestless land areas with frozen ground[3]. This definition largely coincides with that of the Arctic Circle, which is technically defined as an area

[2] P. Arbo et al., *Arctic futures: conceptualizations and images of a changing Arctic*, "Polar Geography" 2012, vol. 36 (3), pp. 1–20.

[3] According to the literature, the terms "Arctic" and "Far North" are treated interchangeably, although the latter cannot be considered a geographical name. This is due to the imprecision of these terms, which is a consequence of: the high dynamics of climate change and problems concerning the limited possibility of clearly defining the geographical boundaries for this region; different methods of marking the boundaries of the North Pole. In addition to these references, some countries have their own names identifying their northernmost regions. These include the Norwegian term "Far North" (Nordomardene), the Russian term "Extreme North" or "Far North" (Крайний Север, Дальний Север), and "Far North" as a designation for the Canadian territory north of the Arctic Circle (Far North). For more on this topic, see National Snow and Ice Data Center, https://nsidc.org/home (accessed February 14, 2023); R. Baker, Remapping the American Arctic, https://worldview.stratfor.com/article/remapping-american-arctic (accessed February 15, 2023).

located above 66.34°N with a twenty-four-hour day or night period at least once a year. The exact location of this parallel varies over time; moreover, sometimes an extension of the Arctic's perimeter up to 60°N[4] is made for North America, Iceland and eastern Russia. Climate and ecological definitions emphasize that this is the area north of the line of natural occurrence (vegetation) of trees, or the area located to the north, where the average air temperature in July is never higher than 10°C[5].

The Arctic is rich in marine flora and fauna; however, it is inhabited not only by birds or land animals, but also by human communities. The indigenous peoples of the Arctic (Inuit, Sami, Chukchi, Nenets) have adapted to harsh living conditions and created unique cultures. The Arctic is a particularly sensitive to climatic changes, so for climatologists it is an early warning system.[6] However, this has not prevented the exploitative policies of the countries of the region, which intensively extract Arctic resources, including timber, coal, animal products and fish. The main engine of economic activity in the region is natural deposits. Data from the United States Geological Survey shows that the Arctic region has 20–25 percent of the world's untapped oil and gas reserves, as well as deposits of rare earth elements and other strategically important minerals, including platinum, palladium, uranium and cobalt. The Arctic seabed holds at least 90 billion barrels of oil and about 1.67 trillion cubic meters of natural gas[7]. In addition, methane clathrate and natural gas deposits

[4] C. Keskitalo, *International Region-Building: Development of the Arctic as an International Region*, Cooperation and Conflict 2007, vol. 42, pp. 192–193.

[5] *Greenland Climate and Weather*, https://visitgreenland.com/about-greenland/greenland-climate-weather/ (accessed February 15, 2023); *Science For a Changing Far North. The Report of the Far North Science Advisory Panel*, www.ontario.ca/farnorth (accessed 15 February 2023); *Far North Land Cover Data Specifications Version 1.4*, Ontario, Ministry of Natural Resources and Forestry; *World Meteorological Organization's World Weather & Climate Extremes Archive*, Arizona State University, https://wmo.asu.edu/ (accessed 15 February 2023).

[6] W. Radziwinovich, *Siberia is getting warmer. Russia on the Brink of Catastrophe*, https://wyborcza.pl/7,75399,25694033,syberia-jest-coraz-cieplejsza-rosja-na-skraju-katastrofy. html (accessed February 14, 2023).

[7] For more on this topic, see D. Gautier et al, *Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle*, U.S. Geological Survey Fact Sheet 2008–3049, 2008.

are abundant. The abundance of increasingly easily exploitable natural resources is heating-up the Arctic states disputes over the rights to extract and exploit them.

The importance of the Arctic as a transit route for shipping is systematically increasing. The thawing of permafrost and receding ice caps are limiting less and less the use of the Arctic waters for surface transit and seasonally enables shipping along the periphery. It was Russia that first fully explored and sailed the so-called Northern Sea Route (NSR) in the 1930s[8]. The importance of this transit shortcut between Europe and Asia is growing not only due to climate change, but also technological improvements, including progressive infrastructure investments along this shipping artery. Canada's Northwest Passage is also there, but it provides a much more limited option than the NSR due to its complex geography and shallow waters.

The role of the Arctic as a transit area for air freight is also growing. Transpolar air trade routes are being explored not only to reduce the transit time between geographically distant areas, but also in terms of strategic air and missile assets, which affects the shape of defense strategies and the scope of military capabilities of countries engaged in these areas. The Arctic is an excellent location for satellite tracking and receiving stations – a critical component of early warning, navigation and guidance systems. This raises the value of the region and makes it an increasingly important element in the diagnosis of the strategic security environment for the states which locate their national security interests there.

[8] The Northern Sea Route is a seasonal shipping route in the Arctic, along the shores of Eurasia, running from the Barents Sea and the White Sea through the Kara Sea, the Laptev Sea, the East Siberian Sea and the Chukchi Sea to the Bering Sea (Pacific Ocean). It is the shortest shipping route connecting the European part of Russia with Siberia and the Far East. It is part of the Northeast Passage, an Arctic sea route leading from the Atlantic Ocean to the Pacific Ocean along the northern shores of Eurasia. The passage is about 7,500 kilometers long and runs from Narvik to Provodnija.

There is also the Northwest Passage, a sea route from Europe to eastern Asia, running by waterways inside the Arktic Archipelago. As a result of the growing greenhouse effect and retreating ice in the Arctic Ocean, this route may become more attractive in the future. Claims to the Northwest Passage have been made by Canada, which claims that the Lomonosov Ridge is an extension of its continental shelf, which would prove that a significant area of the Arctic is Canada's exclusive economic zone.

The consequences of the thawing of permafrost in the Arctic

Permafrost (also known as multi-annual frost) is a layer of ground that maintains a temperature at or below 0° C for at least two years. It is less than 30 meters deep (covered by the epidermal layer of soil, which thaws and freezes seasonally) and covers ¼ of the land surface of the northern hemisphere, as well as part of the bottom of the Arctic Ocean. Thus, it is an important component of the cryosphere - the frozen part of the Earth, which also includes glaciers, sea ice or snow[9]. Currently, due to the global warming, the permafrost in the Arctic is thawing. The temperature of the upper layers of the frozen ground, located shallowly below the surface, is rising most rapidly. The frozen ground, the temperature of which is close to 0° C, is warming by an average of 0.3° per decade. On the other hand, a colder permafrost, whose temperature is below -2° C, warms by as much as a degree in 10 years. Thus, it can be assumed that, due to the increasing average temperature of the Earth, this process will accelerate. Climate models predict that if global warming reaches 1.5°C, the area of permafrost in the Northern Hemisphere will shrink by 30 percent. If it reaches 2°C, its area will shrink by 40 percent. Over the past 7 years, global warming has reached 1.17°C[10].

In addition, scientists estimate that 1.7 billion tons of carbon are stored in the permafrost. This is twice as much as is currently present in the atmosphere and two and a half times as much as humanity has put into the air since the onset of the Industrial Revolution. Microorganisms "waking up" in the thawing permafrost, and depending on their metabolism, they start to burn the carbon it contains anaerobically or aerobically. As a result, methane or carbon dioxide are released to the atmosphere. Both are greenhouse gases, with studies spanning the last 100 years showing that methane is as much

[9] K. Isaksen, H. O'Neill, J. Noetzli, V. Romanovsky, S. Smith, *The changing thermal state of permafrost*, https://www.nature.com/articles/s43017-021-00240-1 (accessed February 17, 2023).

[10] 10 ibid.

as twenty-eight times more effective at trapping heat on Earth than carbon dioxide[11].

The thaw in the Arctic and in the mountainous regions also has a measurable impact on the ecosystems there and on the human-built infrastructure. Shoals of Arctic fish are already moving to adapt to changing water temperatures. By contrast, in the next 30 years, thawing permafrost could put at risk 30-50 percent of buildings, pipelines, gas pipelines or roads in the Arctic[12]. Their repair will cost tens of billions of dollars, in many cases proving impossible or uneconomic. With less ice protecting coastlines, erosion from winter storms is destroying coastal towns. Thawing permafrost results in lack of stability for the ground which can no longer bear the weight of buildings and fixed elements: railroads, roads, airport runways, pipelines, power line crossings, port wharves, sea and river banks. This shortens the lifespan of the existing infrastructure around human settlements, military installations or critical energy and mineral projects[13].

The geopolitical uniqueness of the Arctic

The Arctic region is special for several reasons:

– It is subject to climate change, and it has attracted an increasing number of states interested in exploiting the Arctic resources, making the security situation in the Arctic volatile and dynamic;

[11] K. Bjella, G. Doré, J. Hjort, M. Luoto, D. Streletskiy, Q. Wu, *Impacts of permafrost degradation on infrastructure*, https://www.nature.com/articles/s43017-021-00247-8 (accessed February 17, 2023).

[12] Ibid.

[13] The structure of permafrost remains very poorly recognized, making it difficult to estimate the effects of permafrost thawing, especially in the medium and long term. Large settlements have sprung up on the "permafrost," including Sur- gut (population 380,000), Yakutsk (330,000), Murmansk (287,000; home port of the Northern Fleet), Nizhnevartovsk (277,000), Norilsk (181,000; largest city beyond the Arctic Circle), Vorkuta (61,000), Nyabrsk (106,000) and Novy Urengoy (118,000).

- the perimeter of the Arctic Circle region is ambiguous, making it difficult to determine precisely the extent of rights to individual areas and the resources therein;
- some questions remain unresolved, e.g. whether the problems of climate change and its consequences have a global character – constituting the "common heritage" of humanity; a national one – based on geographic location and the right to sovereignty, or perhaps a local one – shaped by indigenous peoples who have lived for many years in a "traditional" way and realized their needs on land around the Arctic Ocean[14].

Due to climate change, technological advancement and increased activities of the states, the Arctic is shifting to a totally novel place, the one it has never occupied across human history. The Arctic has no decision-making center, which results in a limited ability to effectively protect it from becoming an area of strategic rivalry and competition for resources. The only way to keep the Arctic as a region of peaceful coexistence and cooperation is to conclude an international agreement on its status and the rules for investment, research and exploitation of its resources. In the current situation, however, this is an unlikely solution.

The rising temperature is also a factor that will not be conducive to an international settlement of conflicts. In the most likely scenario, disputes between countries involved in the region will become more complicated and increasingly difficult to settle. Climate warming is having a tangible impact on the size and shape of the Arctic ice sheet, the erosion of coastal areas that are losing the ice barrier that protects them from storms, and the destruction of buildings and transportation infrastructure located on unstable ground. Fish in the Arctic Ocean are moving from their original locations, which

[14] Грейз Г.М., Кузменко Ю.Г., Босе У., *Китайские интересы в российской Арктике на фоне западных санкций против России и меняющегося геополитического гло- бального сценария [Grejz G.M., Kuzmienko J.G., Bose U., Chinese interests in the Russian Arctic against the background of Western sanctions against Russia and the changing global geopolitical scenario]*, "Мир науки и мысли. The World of Science and Ideas" 2023, no. 1, pp. 134-138, https://cyberleninka.ru/article/n/kitayskie-interesy-v-rossiyskoy-arktike-na-fone-zapadnyh-sanktsiy-protiv-rossii-i-menyayuschegosya-geopoliticheskogo-globalnogo/ viewer (accessed March 8, 2023).

is having an impact on local and commercial fisheries, resulting in increased competition between countries for marine resources. The walls of ice-covered seas that have historically sealed off Arctic countries from external threats are also gradually moving away from the mainland, exposing gaps in the countries' natural defensive barriers. At the same time, melting ice is opening up new areas for resource exploration and extraction, thus enabling increased transit and paving the way for increased agricultural activity to the north.

A particular area of rivalry between Arctic and non-Arctic states is the potential of new sea lanes. Russia and Canada claim that their northern corridors are interior waters and therefore subject to the regulatory and sovereign jurisdiction of their governments. The United States and China consider them "international straits" to which anyone can have free access. This sets the so-far allies against each other: Canada reminds the U.S. that transit through straits with international status will allow Russian and Chinese submarines to operate freely in these waters; China is looking for ways to circumvent the regulations that its partner (Russia) imposes on ships transiting the Northern Sea Route. In turn, the growing interest of non-Arctic states in the area – linked to global climate action, environmental issues and attempts to regulate the rules of local resource exploitation – is deepening the process of further internationalization of governance of the Arctic.

Concepts of the arctic policies in selected countries

Countries whose territories are located outside the Arctic Circle have long guarded their control over the region, limiting attempts to introduce changes in Arctic governance that are detrimental to themselves. The eight Arctic states are: Russia, Canada, the United States, Norway, Sweden, Finland, Denmark (Greenland) and Iceland (a small part of Grimsey Island). These countries cooperate, among others, in the Arctic Council, a body created to manage the Arctic

issues[15]. However, while for decades the Arctic was a relatively peaceful area, away from geopolitical tensions, and the Arctic states maintained multifaceted cooperation, worsening climate change and the Russian invasion of Ukraine have changed the situation. The Arctic Council turned out to be one of the first casualties of this war: all Arctic states except Russia issued a joint statement in early March 2022 announcing their intention to suspend participation in all meetings of the body[16]. They argued that the Arctic Council - the Arctic's most important governing body – could not make decisions based on consensus in the midst of the ongoing war in Ukraine, led by one of its members.

Russia

Among eight Arctic states, Russia is most dependent on the region. It occupies about 40 percent of the Arctic's land territory, and more than half of the Arctic's population has Russian citizenship, with the largest Arctic cities (Murmansk, Norylsk) located on the Russian territory. For this reason, the Arctic occupies a key place in Russia's development plans and is recognized as a region that will help mitigate the country's economic and social problems in the future[17].

[15] The Arctic Council is a forum for international cooperation in the Arctic region created by the Ottawa Pact in 1996. It includes representatives of the governments of countries and territories located in the region: Denmark, Finland, Greenland, Iceland, Canada, Norway, Russia, the USA, Sweden and the Faroe Islands (Greenland and the Faroe Islands are dependent territories of Denmark). Poland has had permanent observer status since 1998. Russia is chairing the work of the Council from 2021 to 2023. Another forum for cooperation between the parliaments, governments of the Nordic countries and their autonomous territories is the Nordic Council, established in 1952 and based in Copenhagen. The founding states are: Denmark, Iceland, Norway and Sweden. Finland, Greenland, the Åland Islands and the Faroe Islands joined later. The Nordic Council cooperation applies to all areas except foreign policy and defense.

[16] *Joint Statement on Arctic Council Cooperation Following Russia's Invasion of Ukraine*, https://www.state.gov/joint-statement-on-arctic-council-cooperation-following-russias-invasion-of-ukraine/ (accessed February 24, 2023).

[17] The Russian Arctic-2007 expedition conducted a study to confirm that the Lomonosov Ridge is an extension of its continental shelf, and thus a sizable area of the Arctic would constitute Russia's exclusive economic zone. Along the Russian coastline runs the Northeast Passage, a sea route between Europe and the Far East, of which the Northern

According to Nikolai Korchunov, Ambassador for Arctic Cooperation at the Russian Foreign Ministry and Russia's representative to the Arctic Council, the main threat in the Arctic is climate change, which calls for the development of mitigation measures and adaptation measures. For this reason, Russia declares interest in various forms of international partnerships aimed at achieving breakthroughs in technology and innovative solutions for sustainable development in the Arctic. However, there are obstacles in the way, in particular, restrictions caused by economic sanctions against Russia (and, in consequence, for Arctic residents). This results in many million tons of carbon dioxide emissions released as a result of suspension by the European Bank for Reconstruction and Development (EBRD) its programs for Russia[18]. Korchunov stresses that "the only competition we advocate in the Arctic is fair market competition (...). The last thing we need is another manifestation of the "Cold War" or a "security dilemma." Russia is (...) strengthening its military potential and taking appropriate defense measures to ensure sovereignty and protect our northern borders, which is based on the logic of reasonable sufficiency."[19] According to Nikolai Korchunov, Russia advocates a holistic approach to Arctic development, including preventing threats and responding to challenges through a regional cooperation mechanism. The annual meetings of the Chiefs of Staff of the Arctic Council states were, in the ambassador's opinion, an effective mechanism for maintaining stability in the region, as they limited the internationalization of the military activities of non-Arctic states. Russia believes that there are no problems in the Arctic that require a military solution, and expects that all states that have pledged to maintain peace,

Sea Route (NSR) is a part. In addition, Russia, which has an extensive coastline to the north, is changing its strategic position and seeking an infrastructure link between the Arctic border and central Russia.

[18] E. Buchanan, *Russia and the High North: Interview with Nikolay Korchunov, Russian Ambassador at Large for Arctic Cooperation*, Modern War Institute at West Point, https://mwi.usma.edu/russia-and-the-high-north-interview-with-nikolay-korchunov-russian-ambassador-at-large-for-arctic-cooperation/ (accessed February 20, 2023).

[19] ibid.

stability and constructive relations in the region will honor this commitment unconditionally[20].

The problem with Russia's position is that, under the guise of concern for the environment and improving the living conditions of indigenous peoples, it is testing the possibilities of profiting from climate changes. For President Vladimir Putin, the Arctic is key to the continuation of Russia's business model based on the export of energy resources, especially as its economy feels the economic sanctions imposed in the aftermath of the aggression against Ukraine. Thus, Russia is pursuing ambitious energy projects in the Arctic; it is also militarizing its Arctic policy, including by testing new weapons (i.e. Poseidon nuclear-powered underwater drone), as well as reactivating, at a cost of more than $1 billion, dozens of the abandoned Soviet military bases on the Arctic coast and deploying S-400 air defense systems. It is also making new territorial claims in the High North, which undermines the interests of other Arctic states – Canada, Denmark or Norway. Moscow has renewed its territorial claims over the continental shelf at the UN, thus taking steps to secure Russian interests in the Northern Sea Route. In total, it claims 1.2 million square kilometers of the Arctic, an area four times the size of Germany[21].

Following the outbreak of the Russian-Ukrainian war in February 2022, the militaristic trends in the Russian Arctic policy have become stronger[22]. Russia believes that the conditions for the realization of its interests are deteriorating because, with Finland and Sweden applying to join NATO, it is being increasingly "encircled" by the North Atlantic Alliance states[23]. On July 31, 2022, President Vladimir Putin signed the revised Naval Doctrine of the Russian Federation[24], which

[20] ibid.

[21] P. Lokshin, *Kalter Krieg um die Arktis [Cold War in the Arctic]*, https://www.welt.de/politik/ausland/plus231228413/Wettstreit-der-Weltmaechte-Kalter-Krieg-um-die-Arktis.html (accessed February 20, 2023).

[22] Moscow is trying to rebuild Cold War-era defense architecture along its northern border, recognizing that access to the seas is not only a benefit, but also a potential threat.

[23] April 4, 2023. Finland formally became a member of NATO.

[24] *Указ Президента Российской Федерации от 31.07.2022 г. № 512 об утверждении Морской доктрины Российской Федерации [Decree of the President of the Russian Federation dated July 31, 2022, No. 512, on Approval of the Maritime Doctrine of the Russian Federation]*, http://www.kremlin.ru/acts/bank/48215 (accessed February 21, 2023).

updates the Navy's 2015 goals and operational strategy. The document's key tenets are the "inevitability of confrontation with the West" and the need to increase "operational capability" in international waters. Russia explicitly proclaims itself a "naval power" and emphasizes the necessity of pursuing interests in every waterbody in the world. It now recognizes the Arctic and the Pacific as the most important operational regions. This indicates a reorientation of maritime policy assumptions and a change of attitude toward the West - from a policy of cooperation to a policy of competition in the Far East and the North. In "areas crucial to state survival "[25] and in "areas of vital importance "[26] Russia assumes the use of all possible means, including the armed forces[27].

Much attention has been given to the NSR, which is classified in the document as Russia's territorial waters. This indicates an increased interest of Russia in the northern direction, which is primarily driven by a desire to acquire strategic raw materials and to safeguard against possible military action, including the prospect of an invasion. With climate change in mind, Russia has recognized that seasonal sea lanes in the Arctic Ocean may soon become permanent routes, and that permafrost will begin to disappear, which poses both an opportunity and a threat to the security of Russia's northern territories. The doctrine's authors have clearly indicated the need to invest in civilian and military industry in the northern region. The goal is to improve the infrastructure efficiency and increase the production capacity for the construction of modern ships capable of supplying the Northern Fleet. Russian plans include launching a new type of aircraft carrier, replacing the post-Soviet equipment with a modern naval arsenal, and increasing the number of nuclear submarines capable of carrying nuclear warheads[28].

[25] Territorial waters of the Russian Federation, Exclusive Economic Zone of the Russian Federation, Caspian Sea, Sea of Okhotsk, Russian part of the Arctic Ocean.

[26] Eastern Mediterranean Sea, Black Sea, Sea of Azov, Baltic Sea, Black Sea Straits, Danish Straits, Kuril Straits.

[27] *Указ Президента...*, paraphrase of the quote.

[28] ibid.

Summing up, Russia views the Arctic as a strategic continuum stretching from the North Atlantic to the North Pacific. In this context, the Kremlin's priorities are to charge other countries for accessing the Russian part of the Arctic, to protect the Northern Sea Route, to defend the approaches to the North Pole, and to expand Russia's military capabilities beyond the Russian Arctic.

Russia seeks to rebuild its military capabilities and modernize infrastructure in the region, using a so-called "double double" approach: the Arctic infrastructure is used for civilian and military purposes (dual use), while blurring the lines between offensive and defensive intentions (dual purpose). Russia's Arctic policy leads to increasing tensions, especially in the areas where regional navigation hubs operate: Greenland-Iceland-UK and Greenland-Iceland-Norway as well as the Svalbard archipelago[29]. Thus, opportunities to return to a pragmatic cooperation with other Arctic states are limited.

Canada

The North American states occupy the second-largest Arctic landmass. Unlike Russia, however, the Arctic accounts for a small percentage of Gross Domestic Product (GDP) for both Canada and the United States. For this reason, Arctic issues have long been considered secondary in these countries. However, this approach is changing with the increasing involvement of Russia and other countries in the region. Ottawa has made the first decisions to increase its own activity (including the construction of new icebreakers and Arctic-capable ships), but the size of Canadian and US investments is significantly behind those of Russia and even China.

In 2014 Canada agreed to increase its funding for defense to 2 percent of GDP, which is the limit applicable to NATO countries[30].

[29] M. Boulègue, *The militarization of Russian polar politics*, https://www.chathamhouse.org/2022/06/militarization-russian-polar-politics (accessed February 19, 2023).

[30] L. Hirtzmann, *L'Arctique canadien, nouvel enjeu militaire? [Canadian Arctic, new military challenge?]*, https://www.lefigaro.fr/international/l-arctique-canadien-nouvel-enjeu-militaire-20220904 (accessed February 20, 2023).

According to Elinor Sloan, a professor of international relations at Carleton University in Ottawa, "Canada needs nuclear-powered submarines to make Arctic ice patrol cruises year-round, and at least two polar-class icebreakers. Arctic patrol ships can penetrate areas covered by a maximum of one-meter of ice, so they must sail in the company of icebreakers."[31] Col. Pierre Leblanc, former commander of Canadian forces in the High North, adds, "It would be difficult for Canada to repel an invasion by a large military force on its own."[32]

The prevailing view in Canadian think tanks is that in terms of its security policy Canada has excessively relied on international alliances. It has not met NATO's military spending targets (1.3 percent of GDP in 2021)[33].

It relies on the Five Eyes intelligence partnership, but Canada's contribution to the initiative has been disappointing[34]. Its government has repeatedly mentioned the commitments to the defense of North America, including using NORAD[35], but so far has done little to modernize its key surveillance systems that underpin the security and protection of Canadian sovereignty over the Arctic. Given this situation, the following three steps are crucial: Canada should commit to contributing to NATO's enhanced collective security mission. Second, it needs to expand its intelligence capabilities, as well as those for assessing threats globally, in order to contribute to early warning against threats and conflicts, together with the "Five Eyes"

[31] ibid.

[32] ibid.

[33] *Military Expenditure (% of GDP) – Canada. The World Bank data*, https://data. worldbank.org/indicator/MS.MIL.XPND.GD.ZS?locations=CA (accessed February 19, 2023).

[34] The so-called Five Eyes Alliance is a secret agreement between the intelligence institutions of five countries: the US, Britain, Canada, Australia and New Zealand. It concerns the transfer of intelligence data to each other, particularly that from signals intelligence, and the abandonment of mutual spying.

[35] Surveillance aimed at ensuring the security of the Canadian part of the Arctic and the American part of Alaska is carried out by the North American Aerospace Defense Command (North American Aerospace Defense Command, NORAD;). It is an organizational unit that has been in existence since May 12, 1958, and includes the US and Canada. The purpose is to control air and space over North America by: detecting, observing and estimating the threat level of objects in space; detecting and warning of an attack on North America; cooperating and providing information to other levels of command; providing control and defense in US and Canadian airspace.

partners. Third, Canada must fulfill its commitments to the Arctic. This will entail new investments in the infrastructure, defense capabilities in the High North, as well as ground and space surveillance to monitor the effects of climate change and security threats. New defense commitments will also have to be made, i.e.: accelerating the growth of military spending and increasing the size of the armed forces, which may be a challenging undertaking, especially as the country seeks economic recovery from the COVID-19[36] pandemic.

Canada's key defense needs include new fighter jets and attack aircraft, armed and unarmed reconnaissance drones, small satellite systems, mobile air defense systems, anti-tank defenses and armed icebreakers[37]. However, the most significant reorientation will encompass ensuring economic security, including protecting businesses and individuals from cyberattacks, strengthening capabilities to combat foreign espionage and knowledge theft, improving intellectual property protection in the digital economy, as well as ensuring that Canada's research sector and civil society are free from malicious foreign interference[38]. Challenges to economic security and threats to the country's economic interests are undoubtedly the greatest since World War II. They include, in particular, the Canadian Arctic Territories as a potential area of state competition for the resources of the region. For Canada, the time has come to respond to the fundamental changes in the world order.

The United States

The United States is an Arctic state thanks to an exclave located in the northwestern part of North America, namely Alaska. It is not only the largest U.S. state (more than 1.7 million sq. km.), but also the third

[36] W. Wark, A. Shull, *Opinion: Canada needs a new security strategy to deal with the new global order*, https://nationalpost.com/opinion/opinion-canada-needs-a-new-security-strategy-to-deal-with-the-new-global-order (accessed February 19, 2023); A. Shull, W. Wark, Reimagining a Canadian National Security Strategy,

[37] *Canada's Arctic and Northern Policy Framework*, Government of Canada, 2019.

[38] W. Wark, A. Shull, *Opinion: Canada needs...*, paraphrase of the quote.

least populous (about 733,000 people).[39] The U.S. government's to-date relatively weak interest in the Far North is due to the geographic distance of the forty-eight continental states, as well as the normative concept prevalent in the country, according to which Alaska is a unique region with a set of unwritten rules, beliefs and history that have assured its resilience to many geopolitical problems. The narrative of Arctic exceptionalism has persisted since the end of the Cold War, but is increasingly challenged in the face of the current and impending changes in the security environment. With the opening of new sea lanes and easier access to oil, gas and other natural resources, a so-called "new Arctic" is emerging, forcing the United States to more actively secure its interests. Some U.S. think tanks are calling for a U.S. "return" to the Arctic, which would include the creation of an "Arctic Security Initiative" program (along the lines of the "European Deterrence Initiative" in Eastern Europe) to counter Russia's aggressive posture. Through infrastructure projects, new military exercises as well as business and research activities, Washington could demonstrate that America will not abandon either its Arctic ambitions or the territories of its close allies in the face of Russia's posture. However, a group of experts is raising doubts. They are concerned about the high costs of a "new northern cold war," the uncertain prospects for the use of the Arctic raw materials, and the unclear future of the NSR despite declarations made by the Russian side. Moreover, the high insurance costs of projects in the High North make Arctic routes expensive. And they will not be able to compete with routes through the Suez or Panama Canals in the near future[40].

A strategy document titled "Blue Arctic: A Strategic Blueprint for the Arctic," dated January 2021 (released at the end of Donald Trump's administration) calls for an increased American influence in the region[41]. It emphasizes the need to increase U.S. deterrence in

[39] *U.S. Census Bureau QuickFacts*, https://www.census.gov/quickfacts/fact/table/AK/PST045222 (accessed February 19, 2023).

[40] P. Lokshin, *Kalter Krieg...*, paraphrase of the quote.

[41] A Blue Arctic. A Strategic Blueprint for the Arctic, https://media.defense.gov/2021/Jan/05/2002560338/-1/-1/0/ARCTIC%20BLUEPRINT%202021%20FINAL.PDF/ARCTIC%20BLUEPRINT%202021%20FINAL.PDF (accessed February 20, 2023).

the Arctic, however without undermining the stability of relations or creating a conflict in the region. One of the key goals included in the strategy is to "build trust between nations through collective deterrence and security actions that focus on common threats and shared interests."[42] Still, the proposed approach is incompatible with the concept of deterrence vis-à-vis Russia, based on a strong, credible and predictable military presence that avoids stoking tensions and triggering a possible conflict. A stronger U.S. military presence in the Arctic region is undoubtedly crucial to maintaining an adequate level of deterrence. However, it is also necessary to reduce the risk of unintended conflicts by "expanding regional consultative and joint planning mechanisms" with "communication, containment, transparency and verification" as essential elements for preventing unintended military escalation in the Arctic[43].

The Arctic's importance to the U.S. is rapidly increasing as a result of the "growing geostrategic, economic, climate, environmental and national security implications" arising from the rapid changes occurring in the region. In 2014, it was expected that a permanent U.S. Navy presence in the Arctic would be necessary no sooner than in 2030. It is now estimated that taking action in this regard is urgent due to the complex nature of Arctic challenges: from ensuring unfettered access to sea lanes and raw materials to increased military activity by Russia and China, necessitating a more assertive US engagement. For this reason, a greater emphasis is being placed on the control of maritime areas, and a number of measures are being taken, including: the decision to reconstitute the US Second Fleet; the strengthening of the military facilities, i.e. Thule Air Force Base in Greenland; the increase in the US military presence at Ørland Air Base in Norway; the participation of the aircraft carrier strike group Harry S. Truman in NATO exercises Trident Juncture in 2018 in the vicinity of the Arctic Circle[44]. In addition, the U.S. Arctic strategy emphasizes the

[42] ibid.

[43] K. Zysk, *Predictable Unpredictability? U.S. Arctic Strategy and Ways of Doing Business in the Region*, https://warontherocks.com/2021/03/predictable-unpredictability-u-s-arctic-strategy-and-ways-of-doing-business-in-the-region/ (accessed February 20, 2023).

[44] *National Strategy for the Arctic Region*, The White House, Washington 2022.

need to develop capabilities in the following areas: manned and unmanned operational presence, patrolling, infrastructure investment, key research and projects to enable functioning in the Arctic climate; weather modeling, command, control, computers, communications, cyber, intelligence, surveillance and reconnaissance deployable in the Arctic. The U.S. plans to cooperate with its allies and regional partners, including air surveillance, intelligence sharing, exercises and training. The idea is also to enhance opportunities for pursuing common interests and converging goals in this unique security environment through the development of international cooperation on a regional basis[45].

However, weaknesses of the U.S. Arctic strategy include: a failure to define the desirability of engaging U.S. naval forces in different parts of the region, and a failure to recognize the fact that the Arctic is vast and diverse in terms of its development, infrastructure, economic activity and military needs. Its various parts differ in terms of challenges in the security domain. The European part of the Arctic is relatively heavily militarized - unlike the Alaskan coast. The western part of the Arctic is the area of operations of Russia's Northern Fleet, which potentially poses a threat to the permeability of maritime communications routes and the operational capabilities of US and European naval forces in the North Atlantic. Russian control over the Northern Sea Route, contested by the US, is a contentious issue. Striking a balance between the two pillars of Arctic security also remains an unresolved dilemma: militarization, strong defense and deterrence on the one hand, and the creation of governance and cooperation networks on the other. On the practical level, this includes the Arctic Security Forces Roundtable[46]and meetings of the chiefs of

[45] Ibid.

[46] The ASFR, or Arctic Security Forces Roundtable, is a format established in 2011 at the initiative of Norway and the US for cooperation between two dozen countries (Canada, Denmark, Finland, France, Germany, Iceland, the Netherlands, Norway, Russia, Sweden, the UK, the US) to improve communication and awareness of the Arctic Circle region's maritime environment, created by the increasing tidal flow of people and goods in the Arctic. Meetings are usually held regularly every six months with the participation of high-ranking officers representing each country. Russia has not participated in ASFR meetings since 2014.

defense of the countries in the region. In this context, a greater involvement of US diplomacy in the Arctic is also needed. In 2014, during the administration of President Barack Obama, the position of Special Representative for the Arctic was created. It was abolished in 2017 and reconstituted in 2020 under the name of the Arctic Region Coordinator. The summer of 2020 also saw the opening of the US consulate in Nuuk, Greenland. On the one hand, these are positive steps toward expanding the U.S. diplomatic presence and engagement in the Arctic. On the other hand, these steps were perceived more as symbols of the US' historic neglect of the region, as are still falling short of establishing US diplomatic leadership in the Arctic[47]. Against this backdrop, Senator Lisa Murkowski, a Republican from Alaska, has asked President Joe Biden to consider, among other things: extending U.S. leadership in the Arctic to the entire executive branch, especially the State Department, the Department of Defense, the National Security Council, restoring the functioning of the Executive Committee on Arctic Affairs with additional seats for Alaska Native representatives, as well as the appointment of a Special Presidential Plenipotentiary for Climate Affairs and the executive director of the Ted Stevens Center for Arctic Security Studies, a congressionally approved and funded regional center for Arctic security studies[48].

The Nordic countries[49]

Norway, Finland, Iceland and Sweden are smaller players on the international stage. Nevertheless, they also have interests in the Arctic, especially in the oil, gas and mineral industries, fisheries and

[47] L. Murkowski, *Arctic Exceptionalism*, http://afsa.org/arctic-exceptionalism (accessed February 20, 2023).

[48] Ibid.

[49] Nordic countries (i.e., northern countries, from the words nord and nordisk meaning north and northern in Scandinavian languages, respectively) is a term that is related to the term "Scandinavian countries," but with a broader meaning. It includes the member countries of the Nordic Council, i.e. the three Scandinavian countries (Denmark, Norway and Sweden) as well as Iceland and Finland. Also associated with the Council are three autonomous territories: Greenland, Åland and the Faroe Islands.

tourism. Nordic policy in the Arctic is a combination of deterrence and détente, but Russia's growing military capabilities in the region, its assertive foreign policy and its acceptance for the use of force to achieve political goals are making the relationship asymmetrical, which requires the Nordic states to shift the focus of their security policies conducted to date.

Norway is the world leader in Arctic oil production and a major exporter of oil and natural gas. It is estimated that half of its still untapped hydrocarbons is located in the Barents Sea. It is also the world's second-largest exporter of fish. As a result - amid the military asymmetry between Norway and Russia - it has been a strong advocate of NATO's focus on collective defense and increased engagement on its northern flank through allied military exercises, in accordance with the principles of international law. After the illegal Russian annexation of Crimea, Norway suspended its military cooperation with Russia, but has kept it up in the areas of fisheries, search and rescue, coastal and border guard cooperation, response to maritime incidents or environmental hazards[50]. A "hotline" is also being maintained between the Norwegian Operations Command and the Russian Northern Fleet to reduce the risk of unforeseen accidents. The two countries have a "common interest to create a favorable climate for expanded cooperation in the future. "[51] Nonetheless, in the light of deteriorating security conditions in the region, Norway is considering a reinterpretation of the so-called Spitsbergen Treaty, signed in 1920 in Paris. It gives Norway sovereignty over the Svalbard archipelago, but allows other signatories to establish research stations and exploit natural resources there.

Until Russia's armed aggression against Ukraine in February 2022, the Arctic policies of Sweden and Finland remained largely correlated

[50] In 2008 Norway and Russia, along with the US, Canada and Denmark, adopted the Ilulissat Declaration on Maintaining a Comprehensive International Legal Regime in the Arctic Ocean Region, and in 2010 they signed an agreement on a common maritime border in the Barents Sea.

[51] R. Folland, *Arctic Security: Deterrence and Détente in the High North*, https://www.thearcticinstitute.org/arctic-security-deterrence-detente-high-north/ (accessed February 21, 2023).

with those of the other Arctic states. However, after the outbreak of the war, both countries decided to fundamentally refocus their security policies and submitted accession applications to join the North Atlantic Alliance. Finland is formally a member of NATO whereas Sweden's process of joining the Alliance is not yet complete. The inclusion of Sweden and Finland in NATO will bolster the military strength of the Alliance and its defense capabilities on the Northern flank. It will also raise the importance of the Arctic and improve the strategic situation of the countries in the region by limiting the operational freedom of Russia's armed forces. Sweden and Finland - once the procedure is formally completed - will be covered by allied defense guarantees, which will also include their Arctic territories.

Russia portrays Finland and Sweden's decision to join NATO as an Alliance maneuver that will further "encircle" it in the Baltic and Arctic regions. The questionable presentation of the issue does not mean that Moscow will not respond with destructive measures (although it must be admitted that a direct conflict between Russia and Finland and Sweden in the near future does not seem likely). As a result however, the risk of undermining previous Arctic governance models has increased, including the collapse of the Arctic Council's work. Indeed, the accession of Sweden and Finland to NATO will formally divide the area into two parts: the NATO countries and Russia. Disruption of the scientific cooperation and regulation of marine resources was visible as early as after the outbreak of the war in Ukraine. Now the situation may exacerbate, especially since there is a group of countries (including China, India and Japan) that claim to have the right to be included in the process of managing the Arctic and exploiting its resources. They will therefore seek to deepen divisions among the Arctic states, undermine current models of regional governance and seek to internationalize them (e.g., along the lines of the Antarctic governance model)[52].

[52] M. Black, P. Dortmans, B. Sacks, *Arctic Governance is in Trouble. The Antarctic Could be Next*, https://www.realclearworld.com/articles/2022/12/06/arctic_governance_is_in_trouble_the_antarctic_could_be_next_868682.html (accessed February 21, 2023).

Iceland is a Nordic member of NATO that does not have a permanent force, and whose politics and international position are strongly determined by its location and size (103,100 sq. km, 368,000 inhabitants). It is a small island state whose economy is based on innovation, knowledge and flexible participation in global economic exchange. At the same time, it is a country sensitive to all sorts of changes in the security environment, including in the Arctic region, which it views through the lens of changing its own geostrategic importance, vital for small states. For this reason, Iceland bases its security policy on multilateralism and building friendly relations with other actors in international relations. After the withdrawal of U.S. forces in 2006 from its base in Keflavik, the emergence of asymmetric threats and the necessity to redefine its security needs after Russia's aggression against Ukraine, Iceland faced the challenge of assuring its security guarantees anew. It is pursuing this goal through, among other things: strengthening the Nordic cooperation and cooperation within the North Atlantic Alliance; making its territory, maritime and air space available for Alliance exercises; strengthening defense cooperation *inter alia* with Norway, the United Kingdom, Canada and Denmark; actively expanding its knowledge about the Arctic area and raising its own competence as a reliable and competent partner in solving the region's problems as well as developing an innovative knowledge-based economy. Indeed, it is in Iceland's security interest to ensure that the Arctic is an area of international cooperation in the fields of security, environmental and natural resource protection, transport, culture and society, science and monitoring[53].

Greenland is another example of a territory that is primarily an area of economic activity. This sparsely inhabited island, with a population of about 56,000 people, is gradually increasing the scope of its autonomy gained in 1979. The government in Copenhagen still decides about Greenland's monetary, defense and foreign policy, but in other areas concerning the island, decisions are made by Greenlandic

[53] K. Chyra, *Iceland's Arctic Policy in the Context of Regional Security Challenges*, Portfolio of the Commission on Political Science and International Relations, 2017, no. 12/2, pp. 163–180.

municipalities. One cannot exclude that in the future a vote on independence will be held, in pursue of their own pragmatic interests.

Greenland's strategic location between North America, the Arctic and Europe, as well as the prospect of acquiring vast, hitherto inaccessible resources of raw materials, including rare earth elements that are part of high-tech products (such as smartphones), have evoked a significant degree of interest in the island. A combination of economic needs, pressure exerted by great powers and new opportunities arising from climate change are resulting in growing international competition for the extraction of raw materials located on the island. Greenland is increasingly looking at natural resources as a key to reducing its financial dependence on Denmark (funds from that country account for half of Greenland's budget and a fourth of its GDP). While a large part of Greenland's population supports independence, the island's weak and undiversified economy, based mainly on fishing and tourism, is an obstacle. Currently, about 80 percent of the island is covered by ice; however, over time, a warming climate and technological advancement will make it easier for companies seeking raw materials and mineral deposits to access them[54].

As a result, it is conceivable that if Greenland were to break away from Denmark - a NATO member, US ally and a "buffer" for Greenland in terms of foreign and defense policy - competition for gaining access to Greenland's natural resources could intensify. China is the largest producer and consumer of rare earth elements and it will be interested in securing their supply by exploiting deposits in Greenland[55]. In turn, the United States[56], the European Union[57], the United

[54] *Pro-Environment Politics Won't Deter Demand for Greenland's Resources*, https://worldview.stratfor.com/article/pro-environment-politics-won't-deter-demand-greenlands-resources (accessed February 21, 2023).

[55] China's interest in Greenland is focused on polar exploration and natural resources, while Greenland is interested in Chinese investment aimed at boosting and developing its economy. In 2016 Copenhagen prevented a Chinese company from taking over an abandoned naval base in Greenland.

[56] The US proposed to buy Greenland in 1946 and 2019, and has had an air base on the island since 1950.

[57] The EU published a plan in September 2020 to diversify the supply of energy resources, including rare earths. Greenland is an important part of this plan.

Kingdom[58] and other countries will look for alternatives to supplies from China. All these actors are likely to increase economic aid to the island in order to influence the future decisions of the Greenlandic government.

In the light of the above considerations, it seems that the Arctic strategy of the major Nordic countries should be based on three pillars. First, these countries need to manage risks in such a way ensuring a flexible balance between deterrents and assuring the existing stability in the face of Russia's unpredictable behavior. Second, their Arctic policies must aim to provide strong security to effectively protect against Russian revisionism, while at the same time avoid an escalation of a conflict. This may include the need to strengthen NATO's presence on the Northern flank and guarantee that the Alliance will come to the aid of its Nordic members in the event of Russian aggression, as well as a permanent and credible military presence in the region. Third, the Nordic states have the potential to cooperate with Russia on Arctic issues, while mitigating security dilemmas in the region and balancing the risk of a military conflict outbreak through the use of measures aimed at building transparency, predictability, stability, accountability and pragmatic cooperation. For this reason, the Arctic may turn out as a region where it becomes legitimate to combine military deterrence, political dialogue, economic and environmental cooperation; both within the framework of the existing as well as future cooperation formats, once the relevant conditions are in place.

China as a leading non-Arctic state

The technological and economic advancement, coupled with a warming climate, are resulting in more and more countries declaring an interest in the Arctic. Among them, China is leading the way, having

[58] In November 2020. London and Greenland signed a memorandum of understanding to strengthen cooperation on fisheries, a key bilateral trade sector. The UK views deepening economic cooperation with Greenland through the lens of improving conditions for securing diversification of the natural resource supply chain.

significantly increased its investments and involvement in the region on a much broader scale than any other Arctic country in recent years. In 2011, Chinese authorities said they were a "near-Arctic" power and declared that they would pursue "polar power" status as part of a maritime and national security strategy. Two years later, Beijing was granted an observer status in the Arctic Council (alongside India, South Korea, Singapore and Japan). These actions have changed the security environment in the Arctic, making it a de facto area of rivalry and competition among European, North American and Asian states. Admittedly, China is operating within the existing governance structure for the Arctic, but it has a clear interest in undermining the existing legal and international order established and exercised primarily by the Arctic countries.

China aspires to become a "great Arctic power," although it publicly downplays this goal. Some analysts assume that the country's politicians speak with two voices on the Arctic. The first voice (e.g., expressed in state documents directed externally) is relatively subdued and moderate. The second (e.g., the content of speeches by Chinese state policymakers) is directed at internal audiences. It emphasizes competition and Beijing's Arctic ambitions[59]. It identifies the Arctic, Antarctica, the seabed and the outer space as "unmanaged spaces," or "the most competitive resource treasures." As such, it is fair to assume that they will seek to bring about conditions in which China's share of these resources will match its share of the world's population. Chinese military planners see the Arctic as an area of potential future military competition, so the risk of their using force in a "great-power game" aimed at securing access to resources located "in new strategic spaces" cannot be ruled out.[60] The Arctic is also an area of potential future military competition.

Beijing argues the that current international norms and standards are not representative of the entire world and reflect the North

[59] A. Dale-Huang, R. Doshi, G. Zhang, *Northern expedition: China's Arctic activities and ambitions*, https://www.brookings.edu/research/northern-expedition-chinas-arctic-activities-and-ambitions/ (accessed February 22, 2023).

[60] ibid.

Atlantic system introduced after World War II, which formed the core of the global economic power. According to these politicians, the current order no longer corresponds to the social, political or economic norms of most of the world's countries, and therefore it is time to adjust global mechanisms to represent a broader spectrum of the world's countries, not just a handful of European and North American liberal democracies. Such an undermining of the balance of power in the Arctic would launch an erosion process of the global order and create conditions for the construction of a new international order more favorable to China's security and development interests. In this context, the accession of Finland and Sweden to NATO will strengthen China's position, as it will divide the Arctic between NATO states and Russia, effectively making it more difficult for the Arctic states to continue mutual cooperation. China can expect that the new situation will make it easier to internationalize the governance in the Arctic, overcome the mentality focused on the Cold War and the West while creating conditions for a change in the system of governance not only in the Arctic, but also globally, in which a greater role for China would be envisioned. Any move to effectively exclude Russia from the Arctic Council may embolden Beijing to deepen its cooperation with Moscow toward developing an alternative forum for Arctic governance. Thus, we are dealing with a situation of "incapacitation" of the Arctic Council, which makes it likely that a new, internationalized model of Arctic governance will be developed as soon as favorable security conditions arise[61].

Despite China's growing interest in the region, the Arctic's actual economic dependence on China is still low. They have invested in "Arctic diplomacy" to increase their local influence: sending high-ranking personalities to the Arctic states, lobbying for an observer status in the Arctic Council (obtained in 2013), and engaging in initiatives at the local level. They also seek to increase their military presence: they send warships to the Arctic and Alaska, invest

[61] *China's Opportunity to Break Into Arctic Governance*, https://worldview.stratfor.com/article/chinas-opportunity-break-into-arctic-governance (accessed February 22, 2023).

in building heavy icebreakers and "pay friendly visits" to the ports of Denmark, Sweden and Finland. They conduct scientific activities in the region using their own icebreakers and scientific and satellite centers located in Norway, Iceland and Sweden, while looking for additional facilities in Canada and Greenland. They are developing Arctic infrastructure projects, although these raise suspicions that they could be used for military activities in the event of a possible conflict. There are also doubts about some of China's resource-based investments in the Arctic, some of which have failed. Thus, according to some evaluations, that they were not about investing per se, but rather about estimating the real pool of the raw materials and the possibility of their later exploration under better conditions.

China will increase and diversify its efforts to strengthen its strategic position and gain the "right to talking" about the Arctic region. The growing assertiveness of China's efforts and actions indicate that the country will seek to "shape a new strategic frontier" that reflects its Arctic ambitions. The Arctic is increasingly important to China in a number of dimensions: economic (extraction of Arctic natural resources, the northern shipping route, port infrastructure), scientific (learning about the mechanisms governing climate change), image and political (ambitions to become involved in Arctic governance). China has also put forward an Arctic strategy under the Polar Silk Road initiative, which includes the development of cooperation with Arctic countries, including Russia[62].

Economic cooperation between Russia and China, especially in the Far North, has two dimensions. On the one hand, Russia is counting on China to help it strengthen its position in the Arctic and along the Northern Sea Route; on the other hand, China's growing involvement in the Far North poses the risk that Beijing will soon establish a Silk Road there, in which Russia may be reduced to a secondary role. This will mean challenging not only Russian interests, but also those of

[62] Грейз Г.М., Кузменко Ю.Г., Босе У., *Китайские интересы в российской Арктике...*, paraphrase of the quote.

Western countries in the region[63]. The current and planned Chinese investments are driven by the conviction that the NSR will increase the servicing of the maritime transit traffic, including container traffic, providing an increasingly serious alternative to the Suez Canal. This opens up space for China and Russia to discuss the scale, possibility and scope of Chinese involvement in Russia's shipbuilding industry. In the background of these talks are calculations about the future role and importance of the two countries in the Far North[64].

The intersection of various countries' interests in the Arctic is increasingly complicating the management of the region. Financial resources earmarked by China for investment on the one hand drive its development, but on the other result in a deepening divide between the Arctic states. Denmark, for example, fears that Chinese involvement in Greenland could accelerate the island's independence aspirations. The U.S., in turn, risks that a Chinese presence in Greenland will give its global rival greater control over its strategic reserves of raw materials and minerals, as well as undermine Greenland's historic status in the mid-Atlantic security architecture. Iceland, on the other hand, has so far welcomed Chinese investment, with which it has disappointed other countries in the region, especially the US.

NATO and EU involvement in the Arctic

NATO Secretary General Jens Stoltenberg, in an article published in the Canadian daily The Globe and Mail on August 24, 2022, wrote, among other things: Russia's brutal aggression in Ukraine is changing the rules of the game in the global security dimension (...). The shortest path for Russian missiles or bombers en route to North America is through the North Pole. This makes the role of the North

[63] P. Goble, *China Helping Russia on Northern Sea Route Now but Ready to Push Moscow Aside Later*, "Eurasia Daily Monitor" 2021, vol. 18 (73).

[64] J. Greenwood, S. Luo, *Could the Arctic Be a Wedge Between Russia and China?*, https://warontherocks.com/2022/04/could-the-arctic-be-a-wedge-between-russia-and-chi-at/ (accessed February 22, 2023).

American Aerospace Defense Command (NORAD) crucial for transatlantic security.[65]

There is no consensus within NATO on the direction in which the security environment in the Arctic will evolve. What has emerged, however, is a shared awareness of the risks. The first of these stems from climate change. According to a Norwegian study published in the August 2022 issue of Communications Earth and Environment, "over the past 43 years, the Arctic has been warming almost 4 times faster than the rest of the globe. "[66] In the near future, the Northwest Passage may be completely ice-free for several months of the year, which could lead to an increased maritime traffic, especially military traffic. The second threat stems from the growing risk of tensions between states as a result of a warming climate, as well as increasing global competition; bigger opportunities for shipping routes and economic development, extraction of the region's natural resources, and growing interest in the Arctic demonstrated by authoritarian states, i.e. Russia, as well as China[67]. NATO has a clear interest in maintaining security, stability and cooperation in the High North. The Arctic is the "gateway to the North Atlantic," connecting important trade, transportation and communication links between North America and Europe. Ensuring freedom of navigation and unfettered access is essential to maintaining strong economies and security in the Euro-Atlantic area. With the completion of Finland and Sweden's accession to the North Atlantic Alliance, seven of the eight Arctic states will be members of NATO, which will not only boost NATO's position in the Arctic, but will also enhance the Allies' ability to strengthen the security of the Baltic States. For this reason, the North Atlantic

[65] J. Stoltenberg, *In the face of Russian aggression, NATO is beefing up Arctic security*, https://www.theglobeandmail.com/opinion/article-in-the-face-of-russian-aggression-nato-is-beefing-up-arctic-security/ (accessed February 20, 2023), paraphrase of the quote.

[66] O. Hyvärinen, A. Karpechko, A. Laaksonen, A. Lipponen, K. Nordling, M. Ranta- nen, K. Ruosteenoja, T. Vihma, *The Arctic has warmed nearly four times faster than the globe since 1979*, https://www.nature.com/articles/s43247-022-00498-3 (accessed February 20, 2023); J. Bamber, *The Arctic is warming nearly four times faster than the rest of the world*, https://www.pbs.org/newshour/politics/the-arctic-is-warming-nearly-four-times-faster-than-the-rest-of-the-world (accessed February 20, 2023).

[67] J. Stoltenberg, *In the face...*, paraphrase of the quote.

Alliance is investing in upgrading the air and naval capabilities of its allies, and also regularly conducts exercises in the Arctic (i.e., Trident Juncture and Cold Response) to ensure that it remains ready "to operate in all conditions and to defend every inch of Alliance territory against any threat (...). In this increasingly dangerous and competitive world, NATO is increasing its presence and vigilance throughout the Alliance, including in the High North. With strength and unity, we will continue to deter aggression, protect our values and interests, and ensure the security of our citizens. "[68]

The European Union also has a keen interest in the Arctic, not just the European part of it, but the entire region. The EU's strategic goal is for the Arctic to remain safe, stable, sustainable, peaceful and prosperous. As an economic and political international organization committed to combating the climate crisis and countering the degradation of biological diversity, the EU is particularly committed to bearing co-responsibility for the effects of Arctic warming – since the consequences of Arctic transformation extend across the planet and affect human populations in many different ways.

The European Union, comprising twenty-seven democratic countries, contributes to Arctic warming through its eight percent share of global greenhouse gas emissions. The member states are also responsible for about 36 percent of Arctic soot deposition, which accelerates the region's warming, melting snow and ice surfaces and air pollution. The Union is therefore committed to countering this impact in a coordinated manner, in close cooperation with national, regional and local authorities and Arctic communities. To achieve this strategic goal, it has declared its intention to combat the main sources of pollution found in the Arctic regions in the air, on land and at sea, in particular, such as plastics, marine litter, soot, chemicals and transport emissions, as well as the unsustainable exploitation of natural resources[69].

[68] ibid., paraphrase of the quote.

[69] *Joint Communication on a stronger EU engagement for a peaceful, sustainable and prosperous Arctic*, https://www.eeas.europa.eu/eeas/joint-communication-stronger-eu-engagement-peaceful-sustainable-and-prosperous-arctic-0_en (accessed February 24, 2023).

The EU's commitment to increased engagement in and around the Arctic region aims to address geopolitical, environmental, economic, social and security challenges. Actions will primarily include: strengthening the strategic perspective by examining the linkages that exist between climate change and security; mainstreaming Arctic issues in its external diplomacy; fostering regional cooperation working toward Arctic security; expanding civil protection capabilities; cooperating on search and rescue; and researching permafrost melting. In implementing the European Green Deal[70], the EU will seek to mitigate climate change problems and implement adaptation measures to the new climate situation by, among other things, stimulating better education among the region's communities and developing their digital skills; promoting sustainable economic growth and employment; and increasing the involvement of young people, women and indigenous peoples while deciding about the future of the Arctic on issues of innovation or research. The EU will stimulate an innovative green transformation, which will enable the creation of future-oriented jobs in the Arctic in innovative sectors: in renewable, carbon-neutral energy; in sustainable mining and tourism; in green technology, fisheries and agriculture; and in the e-science, e-health, connectivity and infrastructure sectors. The EU will also push countries to move away from policies to extract oil, coal and gas in Arctic regions[71].

[70] The European Green Deal is a set of policy initiatives of the European Co- mission to achieve climate neutrality in Europe by 2050. More: A. Gurzu, P. Tamma, E. Schaart, *Europe's Green Deal plan unveiled*, https:// www.politico.eu/article/the-commissions-green-deal-plan-unveiled/ (accessed February 24, 2023); *Communication from the Commission to the European Parliament, the European Council, the Council, the Economic and Social Committee and the Committee of the Regions – The European Green Deal*, Brussels 2019, https://eur-lex.europa.eu/legal-content/PL/TXT/?uri=CELEX%3A52019DC0640&qid=1653851156228 (accessed February 28, 2023).

[71] *Joint Communication on...*, paraphrase of the quote.

Summary

The picture of the new security situation in the Arctic is completed by repeated international calls to maintain the Arctic's status as a "zone of peace." They are complicated, however, not only by the ongoing climate change, but also by the reactions of states that pursue their interests in the region. With the growing interest in the Arctic, all Arctic states are faced with a new strategic reality.

The war triggered by Russia's aggression against Ukraine has created new threats and problems for the region's security; these have, in turn, dispelled the myth that the Arctic is immune to changes in the global security environment. The first challenge is Chinese activity in the Arctic, challenging the previous model of managing the area. The second one is the activity of Russia and China, which have made a concerted play to increase their military, economic and scientific presence in the Arctic, motivated by the need to reform the hitherto prevailing system of international security. The third challenge stems from territorial claims to more Arctic territories - submitted by Russia, among others, and rejected by the United States. This might lead to a new conflict soon. Moreover, the actions of other states involved in the issue may further complicate the conditions for a possible renegotiation of the Arctic governance system. Until now, the region has been subject to certain formal and legal mechanisms, which have functioned as long as the participants cared to use them. It turns out however that there are limits to cooperation. Both the war in Ukraine and the retreating ice are accelerating the competition of countries in the Arctic and putting an end to the era of "Arctic isolationism." In order to limit the negative effects of this race, it is becoming necessary to develop a new model for managing the region, a one that will take into account a much broader spectrum of actors on the international stage than ever before.

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