### Commentary

# Destabilization of the Arctic

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#### Abstract

The Arctic region is warming four times faster than the rest of the planet, with the inevitable result that the economy, natural resources, ocean and land sustenance and all human security factors now require rapid adjustment by both government and population. The circumpolar nations have taken pride in an era of peaceful cooperation. Working together for the common good is a deliberate choice of the circumpolar nations but also a necessity because of the extremely harsh climate that prevails in the Arctic lands and waters. Over the past decade Russia has developed many military bases, extended over the whole of its lengthy northern seacoast. The Arctic is a major economic base for Russia. Undersea, the submarine patrols of the Cold War, by both Russia and the United States, had been drastically reduced. Now military exercises in and near the Arctic are extensive; Chinese military vessels have entered the North Pacific. While military resources of individual countries have occasionally entered the Arctic area, there formerly was genuine support for the ideal of a demilitarized Arctic.

Russia's invasion of Ukraine was a clear indication that Russia is unpredictable and aggressive. Russia could choose aggressive action in the Arctic. The entire Arctic region is thus destabilized while it waits for the future to unfold. This is a brief review of the current situation of Arctic organizations and countries that intend to benefit by the opening of the Arctic. The composite situation provides a way to discern the ongoing destabilization of the Arctic.

#### Keywords

Arctic cooperation, NATO, Arctic governance, Russian military, United States military

#### About the author

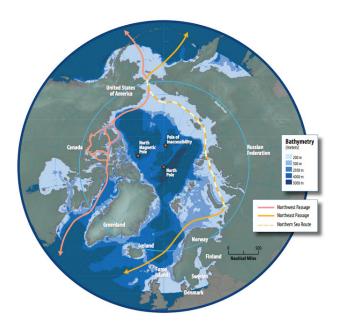
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## 1. Introduction

Elements that contribute to destabilization in the Arctic are considered, beginning with institutional and military factors and then the situation in individual countries. Climate change is the original factor leading to instability; the Arctic is transitioning from being inaccessible to relatively accessible. The geopolitical landscape of Arctic affairs is in a state of flux. For example, the shipping lanes, Figure 1, will eventually be in active use. The necessary supporting infrastructure will transform these shorelines. The Northern Sea Route, adjacent to the shoreline of Russia has occasional users. The Northwest Passage, which would greatly shorten the shipping distance between Asia and eastern North America is not yet commercially viable.

Figure 1 – Map of Arctic Navigation Routes

(Arctic Council, Arctic Marine Shipping Assessment 2009 Report, 2009)



## 2. Arctic Council

Formed in 1996, with significant assistance from Canada, the Arctic Council (https://www.arctic-council.org) had the function of providing a formal framework for intergovernmental activity on economic and environmental matters. Exclusion of military matters<sup>1</sup> was a deliberate choice at the formation. Indigenous groups from all circumpolar countries were given a seat at the table, as Permanent Participants. Allowance was made for entry of

The annual Arctic Security Forces Roundtable (ASFR) was held for the first time in the United States – May 2022 <a href="https://www.northcom.mil/Newsroom/News/Article/Article/3021154/nato-allies-partners-promote-arctic-security-military-cooperation/">https://www.northcom.mil/Newsroom/News/Article/Article/3021154/nato-allies-partners-promote-arctic-security-military-cooperation/</a>

Observers, who could contribute and participate but not vote. The number of Observers continues to grow and includes China, India and South Korea. The Secretariat is housed in Tromsø Norway. Governance is provided by a rotating two-year Chairmanship, taken in turn by the member countries. Russia's two year term as Chair went from 2021 to 2023, but early in its term, Russia invaded Ukraine. By March 3, 2022 the non-Russian members' statement<sup>2</sup> announced to the world that the they would temporarily pause participation in all meetings of the Council. The situation has caused distress in the international community because the Ukraine war has ended "...decades long collaboration in the Arctic".

On March 3, 2022 the Barents Euro-Arctic Council strongly condemned the Russia's military aggression against Ukraine. The Joint Statement of Finland, Denmark, Iceland, Norway, Sweden and the European Union regarding Barents Euro-Arctic cooperation says "(we) have no other choice than to suspend activities involving Russia in the Barents Euro-Arctic cooperation. We remain convinced of the enduring value of Barents Euro-Arctic cooperation, and reiterate our support for this institution and its work".<sup>3</sup>

There has been speculation that Russia might leave the Arctic Council. By 2023, both the Arctic Council and the Barents Euro-Arctic Council had resumed work, in whatever manner possible, between the remaining members. As Russia is the largest member country (by geographic land mass, and Arctic coastal length) of both organizations, there will be a significant drop in achievement of needed discussion and work. No resolution has come forward at this writing.

<sup>2 &</sup>quot;Canada, the Kingdom of Denmark, Finland, Iceland, Norway, Sweden, and the United States condemn Russia's unprovoked invasion of Ukraine and note the grave impediments to international cooperation, including in the Arctic, that Russia's actions have caused.

We remain convinced of the enduring value of the Arctic Council for circumpolar cooperation and reiterate our support for this institution and its work. We hold a responsibility to the people of the Arctic, including the indigenous peoples, who contribute to and benefit from the important work undertaken in the Council.

The core principles of sovereignty and territorial integrity, based on international law, have long underpinned the work of the Arctic Council, a forum which Russia currently chairs. In light of Russia's flagrant violation of these principles, our representatives will not travel to Russia for meetings of the Arctic Council. Additionally, our states are temporarily pausing participation in all meetings of the Council and its subsidiary bodies, pending consideration of the necessary modalities that can allow us to continue the Council's important work in view of the current circumstances." <a href="https://www.state.gov/joint-statement-on-arctic-council-cooperation-following-russias-invasion-of-ukraine/">https://www.state.gov/joint-statement-on-arctic-council-cooperation-following-russias-invasion-of-ukraine/</a>

<sup>3</sup> Barents Euro-Arctic Council Statement <a href="https://barents-council.org/news/joint-statement-of-finland-denmark-iceland-norway-sweden-and-the-european-union-regarding-barents-euro-arctic-cooperation">https://barents-council.org/news/joint-statement-of-finland-denmark-iceland-norway-sweden-and-the-european-union-regarding-barents-euro-arctic-cooperation</a>

# 3. Climate Change in the Arctic

Recent and ongoing geopolitical changes in the Arctic are not independent of the rapid climate change in the Arctic. Until recent decades, little attention was paid to potential economic resources of the Arctic because the vast frozen icecap of the north was mainly inaccessible. By the 1980s, scientists were warning of the signs of major climate upheaval and were largely ignored (for example – the Dagomys Declaration, USSR 1988, issued at a Pugwash meeting in Moscow). Natural species of both land and sea are enduring changes that are bringing about major declines in populations; indigenous peoples cannot rely on their traditional food sources.

Methane, a greenhouse gas many times more powerful than CO2 is being released from melting permafrost on land and methyl hydrates on the ocean floor, thus exacerbating climate change. Ocean communities are threatened with loss of property and livelihood because of rising seas and severe storms. There are major collapses in the built infrastructure, such as highways, bridges, buildings, because the frozen underground supports have melted. This is clearly destabilization of the Arctic; at the same time newly available economic opportunities in land and sea are recognized. The international community has indicated that they intend to access hydrocarbons and minerals that were previously inaccessible. Fortunately, the rights to the coastal waters, extending as far as the continental shelves are protected by UNCLOS (United Nations Convention on the Law of the Sea), and there continues to be an international will to adhere to this. The shipping industry is awaiting the opportunity to transport goods across the significantly shorter Arctic routes. Predictions of an ice-free Arctic in summer have suggested 2050 as the potential for relatively easy passage of cargo ships. 4 In May 2023, a publication from the University of Exeter presented new findings regarding the role of the now-recovered ozone layer. The ozone layer has protected the ice and delayed melting by up to an estimated fifteen years. The authors "estimate that each 1,000 metric tons of ODS (Ozone Depleting Substance) emissions prevented saves about seven square kilometers of Arctic sea ice".5

There is apparent consensus that the newly accessible, most rapidly changing parts of the Arctic lie north of the Arctic Circle (60 degrees latitude). Still in the Arctic, but in the lower latitudes, there is vast poorly accessible land in Siberia, and the Canadian North. Norway, Sweden and Finland have utilized their northern territory, and enabled access. Thinly populated lands await development as the Arctic climate warms. Population

<sup>4</sup> The IPCC Sixth Assessment Report (2021) stated that Arctic sea ice area will likely drop below 1 million km2 in at least some Septembers before 2050.

<sup>5</sup> England, Mark R. et al, The Montreal Protocol is delaying the occurrence of the first ice-free Arctic summer, Proceedings of the National Academy of Sciences (2023). DOI: 10.1073/pnas.2211432120 https://phys.org/news/2023-05-ozone-treaty-delaying-ice-free-arctic.html

density and developed settlements vary widely, with Russia having the largest population, including cities with population over one million. Alaska (United States) has several cities and military bases, and a mountainous, mostly inaccessible, interior region. Canada, the coldest land mass, has the smallest population north of the Arctic Circle. Iqaluit (population about 10,000) is the largest settlement.

In summary, climate change is the overarching factor for destabilization in the Arctic. This is accompanied by the ongoing destabilization of the geopolitical environment.

## **4. NATO**

During the Cold War, both Russia and United States had frequent Arctic 'patrols' of their SSBN fleet. (SS denotes submarine, the B denotes ballistic missile (nuclear), and the N denotes that the submarine is nuclear powered). By the time the Arctic Council was formed, the number of patrols were significantly less in number. In this context it should be noted that Russia's main submarine base is in the Arctic, near Murmansk. In keeping with the goal of a demilitarized Arctic, NATO and the naval armaments of its member nations had largely remained absent from the Arctic. Military vessels were occasionally present for civilian purposes, such as search and rescue.

The GIUK <sup>6</sup> gap is strategically vital to the naval alliance partners in NATO. Normally absent, Russian submarines (probably originating from Murmansk) have recently been detected in this area. These occurrences contribute to destabilization of the Arctic.

NATO has sponsored annual military exercises in the High North for many years, involving tens of thousands of personnel and at least fourteen active days. By 2018, the exercises<sup>7</sup> had participation from the military forces of Sweden and Finland, which sparked Russian objections. Exercise Cold Response typically involves both land and sea; in 2020<sup>8</sup> activities in the Norway included the Finnmark territory adjacent to the Norway-Russia northern border. In February 2023, U.S. forces participated in land-based training exercises with the Jaeger Brigade of Lapland. In recent months, NATO exercises at sea extended northward into the Barents Sea.

GIUK represents the geographic north Atlantic region that is near Greenland, Iceland and UK, and leads north to the Norwegian Sea into the Barents Sea.

<sup>7</sup> Atle Staalesen <a href="https://thebarentsobserver.com/en/security/2018/10/these-13000-soldiers-show-our-joint-commitment-regional-defense-nordic-ministers">https://thebarentsobserver.com/en/security/2018/10/these-13000-soldiers-show-our-joint-commitment-regional-defense-nordic-ministers</a> "These 13,000 soldiers show our joint commitment for regional defense, Nordic ministers say as NATO drills Trident Juncture kick off"

<sup>8</sup> Michael Klare <a href="https://www.nationalmemo.com/amid-climate-change-dangerous-war-games-in-the-arctic/?cn-reloaded=1">https://www.nationalmemo.com/amid-climate-change-dangerous-war-games-in-the-arctic/?cn-reloaded=1</a>

<sup>9</sup> Thomas Nilsen US solders to train Arctic warfare in Lapland <a href="https://thebarentsobserver.com/en/2023/02/us-soldiers-train-arctic-warfare-lapland-monday">https://thebarentsobserver.com/en/2023/02/us-soldiers-train-arctic-warfare-lapland-monday</a>

As NATO departs from its previous Cold Response deployment pattern, Russia responds. Russia's annual military exercises, particularly for the Russian navy, have been re-located toward the western end of the Northern Sea Route. In 2022, the exercises moved to the eastern Barents Sea and infantry brigades from the Kola Peninsula were training in Arctic warfare. The Russians intended this show of strength to be geographically near the NATO exercises. These training exercises had an effect of escalating tension, which was not allayed by the Norwegian Prime Minister's speech at the UN Security Council, responding to the Moscow's allegations that Russia is being threatened by the West, stating "These allegations are simply not true. There is no military threat against Russia."

In the post-Cold-War period, NATO members were encouraged to recognize the Arctic as demilitarized, and while military elements were not entirely absent, there was near-compliance. Planning for increased economic activity has proceeded with this understanding. However, by 2023, possibly the only restriction to NATO operations is that the Arctic still offers an extremely forbidding environment. Because the Arctic Ocean is of great strategic and economic importance to Russia, it has built dozens of new and/or renewed military bases and airfields since 2007. The 2022 Russian Naval Doctrine<sup>12</sup> confirms its offensive capabilities in the High North. Foreign navies exercising in the area are seen as a challenge to Russian security. A recent Russian move that could be counterproductive to the Russian economy is the restriction of naval movement on the North Sea Route.<sup>13</sup> The new law allows only one foreign vessel to pass at a time and requires notification three months in advance. Submarines must surface.

Until recently, the West/NATO was willing to view these massive Russian developments on and near the Arctic Ocean as partly economic in nature, with potential for dual civilian/military use. Now, this former place of peaceful collaboration has joined the remainder of the militarized global geography.

<sup>10</sup> NATO allies wake up to Russian supremacy in the Arctic https://www.reuters.com/world/europe/nato-allies-wake-up-russian-supremacy-arctic-2022-11-16/

<sup>11</sup> Thomas Nilsen <a href="https://thebarentsobserver.com/en/security/2022/09/russia-shows-arctic-military-drill-amid-ukraine-war">https://thebarentsobserver.com/en/security/2022/09/russia-shows-arctic-military-drill-amid-ukraine-war</a>

<sup>12</sup> Control over Arctic Ocean Top Priority of New Russian Naval Doctrine <a href="https://www.highnorthnews.com/en/control-over-arctic-ocean-top-priority-new-russian-naval-doctrine">https://www.highnorthnews.com/en/control-over-arctic-ocean-top-priority-new-russian-naval-doctrine</a>

<sup>13</sup> Francesco Bussoletti Russia restricts naval circulation on the Northern Sea Route 6 December 2022 <a href="https://www.difesaesicurezza.com/en/defence-and-security/ukraine-russia-restricts-naval-circulation-on-the-northern-sea-route">https://www.difesaesicurezza.com/en/defence-and-security/ukraine-russia-restricts-naval-circulation-on-the-northern-sea-route</a>

# 5. Is there a possibility to form an Arctic Nuclear-Weapon-Free-Zone?

By the early part of the 21st century, it seemed possible that the circumpolar countries might consider forming a nuclear-weapon-free zone encompassing the northern territory of the circumpolar nations. Since all of these countries except Russia and the United States were already free of nuclear weapons it seemed possible that some governments would take an interest in the concept. Ambassador Jayantha Dhanapala, former United Nations Under-Secretary for Disarmament, requested that Canadian Pugwash take this cause as one of their projects and that has been ongoing since 2013. Presentations of the topic have been made in nine countries; two Canadian Pugwash members presented the concept to senior staff at the Embassy of the People's Republic of China in Ottawa. Two policy conferences, jointly with two Ontario universities, reviewed various aspects of Arctic security. An online discussion group exists, with membership from over twenty countries. In recent years, the focus of this project has shifted to general aspects of Arctic security.

There was a moderate support for the Nuclear-Weapon-Free-Zone idea under Holger Neilsen, a cabinet minister in a previous government of the Kingdom of Denmark. There had been attempts to gain support for a Nordic nuclear-weapon-free-zone. In the parliament of Iceland, the second attempt succeeded in passing a motion making Iceland a nuclear weapon free country. These efforts did not lead to further parliamentary motions in other Arctic non-nuclear-weapon states, even in a period when the Arctic was considered non-militarized. Now, the concept of a nuclear-weapon-free Arctic is dormant. Keeping the Arctic nuclear-weapon-free-zone (NWFZ) on the geopolitical agenda would also keep a focus on the benefits of existing NWFZs. Discussion of any form of nuclear disarmament should not slip from the international agenda. Non-Nuclear weapons states of the Arctic (Denmark (Greenland), Norway, Sweden, Finland, Canada) do not consider a nuclear-weapon-free declaration for all or part of their territory because the perception is that NATO would object.

## 6. Arctic Nations

Figure 2 Map showing the Arctic circumpolar nations below. The blue line is the Arctic Circle. The red line is the 10°C July mean isotherm (the terminology which indicates a constant temperature).

The following sections cover each of the Arctic nations, briefly examining the conditions giving rise to destabilizing change in the Arctic.

North Pacific

Ocean

North Pacific

Ocean

Carrier

Carr

Figure 2 Map showing the Arctic circumpolar nations

(CIA World Fact Book, Public Domain, https://commons.wikimedia.org/w/index.)

### 6.1 Russia

Since its invasion of Ukraine, Russia has seen the largest upheaval in its Arctic affairs. The Arctic Council has refused to convene under Russia's chairmanship. Many vital environmental and economic endeavours have been 'on hold'. Years-long programs of scientific research have stopped, while others have continued, handicapped without Russia's contribution. Re-opening of some programs is likely, without Russia. Fortunately, vital fishing agreements between Russia and Norway have not been affected.

Russia's oil and gas resources, a major support for the economy, are mainly located in the Arctic. European countries, refusing to buy from Russia, have scrambled to obtain alternate energy sources. Russia is selling its fossil-fuel product in Asia and operating joint projects with China. It is seeking, and will find, countries that will continue development work and purchase these climate-change-inducing hydrocarbons.

There are many restored or new military bases across the huge length of the Russian Arctic coastline that are capable of serving both military and civilian needs. For example, support for shipping along the Northern Sea Route and support for extensive development of oil and natural gas as Liquid Natural Gas(LNG), thus defying the need to slow climate change by reducing oil and gas use.

Figure 3 Locations of military outposts Russia has in the far north (Office of Republican Sen. Dan Sullivan, 2017)



Major land and sea forces<sup>14</sup> have been sent from the Arctic to the Ukraine war. Decimating personnel and equipment located in the high north was necessary, because in-place Russian forces were poorly equipped and trained and had sustained heavy casualties. In early 2022, Russia had a large strategic nuclear missile drill and tested a Tsirkon hypersonic cruise missile.<sup>15</sup> Geography dictates that Russia must have its major submarine base in the Arctic. The base is placed near the Kola Peninsula. Russia's only ocean coastlines are either on the Arctic Ocean or the North Pacific. For important strategic access to the Atlantic Ocean, Russian naval vessels can transit though the Barents Sea to the north Atlantic. Russian military bases in the north Pacific Ocean have recently received<sup>16</sup> four Borei-class nuclear-powered submarines, its newest ballistic missile submarines. Though this is very important to Russian naval strategy for its eastern Arctic and east Asia, it is not the major submarine base as the Atlantic Ocean is not accessible from there.

In recent months, there has been a deliberate display of naval submarine power – part of Russia's demonstration that it could choose to make good its threat to deliver a nuclear weapon attack to Ukraine. There are no nuclear weapon attack targets in the Arctic, but Russia has the capability to deliver a nuclear weapon to Ukraine from its northern military operations.

<sup>14</sup> Lee Mottola NATO's Arctic Command A Case for the Expansion of NATO's Mission in the High North <a href="https://www.thearcticinstitute.org/nato-arctic-command-case-expansion-nato-mission-high-north/">https://www.thearcticinstitute.org/nato-arctic-command-case-expansion-nato-mission-high-north/</a>

Thomas Nilsen <a href="https://thebarentsobserver.com/en/security/2022/11/us-special-forces-will-showcase-first-ever-live-fire-rapid-dragon-airdropped-cruise">https://thebarentsobserver.com/en/security/2022/11/us-special-forces-will-showcase-first-ever-live-fire-rapid-dragon-airdropped-cruise</a>

Jeff Schogol, How much of a threat does Russia's fleet in the Pacific pose? <a href="https://taskandpurpose.com/news/russia-pacific-fleet-challenge-united-states/">https://taskandpurpose.com/news/russia-pacific-fleet-challenge-united-states/</a>

#### **6.2 United States**

The United States has two roles in Arctic affairs, the first being as the lead-nation in NATO; the second is as the national government of a large resource-rich state, Alaska. It is separated from eastern Russia only by the relatively narrow Bering Strait.

For years, the United States treated Alaska as a state requiring little military protection, and even the Coast Guard could only offer two aging diesel-powered icebreakers. There has been an awakening, particularly since the Biden administration took over. Troop training exercises are frequent and substantial. As recently as October 2022, US Air Force Gen. Van Herck expressed a concern<sup>17</sup> about the current readiness of United States armed forces to operate in the Arctic. However, he continued by noting that he was encouraged about the progress the Army was making in Arctic preparations.

The National Strategy for the Arctic Region, the first since 2013, was released by the Biden Administration<sup>18</sup> In October 2022. Defining its strategy in terms of Security, Climate Change and Environmental Protection, Sustainable Economic Development, and International Cooperation and Governance, it is evident that competition with Russia and China has influenced the policy.<sup>19</sup> There is a goal to continue international cooperation without Russia, because of its war in Ukraine. This is new ground for the United States, which is notifying the world that it will supply greatly increased resources to its northern territory and making sure that there is an emphasis on military readiness. The circumpolar nations watched while Russia established a comprehensive string of military bases in the Arctic and the United States did not respond in kind. Now, as a result of the destabilization caused by the Russian war in Ukraine, the U.S. is equipping its land, sea and air forces for homeland defence. Homeland defence has received new emphasis because the most likely attack route would be across the Arctic Ocean. NORTHCOM and NORAD will receive new funds. (See further discussion in the section on Canada.)

The United States is aware of Russian nuclear submarines patrolling near to both its East Coast and its North Pacific Coast and is probably responding 'in-kind'. However, the U.S. response to an actual nuclear attack on Ukraine would likely avoid the use of nuclear weapons from its Arctic-based SSBN submarines, and instead would employ conventional weapons.

<sup>17</sup> Homeland Protector Calls for Revamped Force Arrangement <a href="https://www.afcea.org/signal-media/">https://www.afcea.org/signal-media/</a> homeland-security/homeland-protector-calls-revamped-force-arrangement

<sup>18</sup> New Arctic plan warns of growing strategic competition from Russia, China https://insidedefense.com/insider/new-arctic-plan-warns-growing-strategic-competition-russia-china%C2%A0By

<sup>19</sup> Barry Zellen Russian aggression gives US excuse to focus military and more on Arctic https://responsiblestatecraft.org/2022/10/29/new-us-arctic-strategy-focuses-on-climate-and-indigenous-perspectives/

# 6.3 Greenland (Kingdom of Denmark)

The military dimension of Greenland's national security is provided by Denmark. Danish naval vessels protect its coasts. Greenland wishes to handle its own foreign affairs but is not yet ready to do so. In view of international tensions, this goal may be moving further into the future. Climate change is Greenland's most important destabilizing factor.

Greenland is a member of the ICC (Inuit Circumpolar Council), along with Canada, Alaska and Russia. This has always been an active collaboration for common interests, but now the connection with the Russian segment of ICC is 'on hold'. ICC is a Permanent Participant at the Arctic Council, sends delegates to the COP meetings, and participates internationally at the United Nations where it draws attention to the need to limit climate change. Greenland is thought to have substantial mineral resources (including rare earth elements and uranium). China seeks access, but Greenland has been wary. For example, China wanted to build a major airport in Eastern Greenland, but Greenland refused (fearing a loss of sovereignty). Ever since World War II, the United States has had a major base at Thule in northern Greenland, which has always employed native Greenlanders. Recently, the United States has formally agreed to cede management of the base to Greenland.

### 6.4 Denmark

Denmark is an active participant in NATO exercises in the GIUK gap as well as the annual NATO Cold Response exercises in the Arctic. All the Nordic nations have shorelines on the Baltic Sea and the Arctic Ocean. On both coasts, these shorelines are also accessed from Russian territory. That geography gives rise to a need for security measures on both fronts. These regional issues were explored in the January 2023 expert seminar "Regional Security in the North, Nuclear Risks and Possible Solutions".

## 6.5 Norway

Norway, a NATO member, has ongoing formal and informal contact with Russia. It has a land border with Russia in its northern region of Finnmark. There is civilian and military activity on the Barents Sea which is a major fishing and commercial location for both countries. The Norwegian-Russian Joint Fishery Commission<sup>20</sup> is still operating. Svalbard, Norway's northern island, is host to a major Russian coal mining industry.

<sup>20</sup> Victoria Herrmann November 3, 2022, The US Comes in From the Cold with New Climate-Focused Arctic Strategy https://www.thearcticinstitute.org/us-comes-cold-new-climate-focused-arctic-strategy/

The western countries' isolation of Russia because of its war in Ukraine has disrupted daily life of some northern citizens and their commercial enterprises and increased the scope of defence exercises. Norway's land, sea and military assets have always participated in the annual 'Cold Response' exercises sponsored by NATO. A recent training exercise<sup>21</sup> in Norway has shown the need to add planning for combat situations in a warmer Arctic (near to 0 degrees C) adjusting for variations that require different equipment and clothing.

Norway raised its military alert level<sup>22</sup> in October 2022. In early November 2022, Norway hosted a U.S. missile launch<sup>23</sup> at its Andoya Space range. However, there is no change in Norway's nuclear weapon policy, which requires that no nuclear weapons be stationed on Norwegian territory.

### 6.6 Sweden

Sweden has, for 200 years, been militarily non-aligned. Now, to preserve the security of its citizens, and with agreement from most of them, Sweden has applied to join NATO.<sup>24</sup> Serious opposition continues to exist, but others argue that existing bilateral agreements do not provide sufficient protection from Russian threats. This is a very significant shift in geopolitical alignment. Sweden is likely to continue to be a facilitator for nuclear disarmament efforts, including hosting international meetings.

It is clear that neither Sweden nor Finland will follow the lead of some European countries that have continued to allow the U.S. to base nuclear weapons there. Sweden will continue, as it has for years, to assist NATO to hold military exercises in its remote Arctic lands.

### 6.7 Finland

Finland, with its 1340 km border with Russia, needs a stable and peaceful relationship with Russia. Nevertheless, Russia's invasion of Ukraine convinced a majority of the population that Finland must apply to join NATO. In recent years, NATO exercises on Finnish territory have been welcomed and Finland has provided support with personnel

<sup>21</sup> Daniellle Bochove & Natalia Drozdiak A Warmer Arctic Challenges Troops Training for Subzero Warfare <a href="https://www.bloomberg.com/news/articles/2023-03-14/military-forces-training-in-arctic-face-new-foe-warmer-weather">https://www.bloomberg.com/news/articles/2023-03-14/military-forces-training-in-arctic-face-new-foe-warmer-weather</a>

<sup>22</sup> Gwladys Fouche Norway raises military alert in response to Ukraine war https://www.reuters.com/world/europe/norway-military-sharpens-security-response-ukrainewar-2022-10-31/

<sup>23</sup> John Vandiver Unconventional delivery of US airpower in Arctic tailored to serve notice to Russia https://www.stripes.com/branches/air\_force/2022-11-09/red-dragon-missile-norway-russia-7986361. html

<sup>24</sup> Why Sweden is moving away from its 'non-aligned' status and towards NATO <a href="https://www.cbc.ca/radio/asithappens/as-it-happens-friday-edition-1.6452438/why-sweden-is-moving-away-from-its-non-aligned-status-and-towards-nato-1.6452991#content">https://www.cbc.ca/radio/asithappens/as-it-happens-friday-edition-1.6452438/why-sweden-is-moving-away-from-its-non-aligned-status-and-towards-nato-1.6452991#content</a>

and other resources.

With the inclusion of Finland and Sweden, a possibility of a collective Nordic defense approach within a NATO framework, has been suggested by Maj. Gen. Folland, Royal Norwegian Air Force.<sup>25</sup>

#### 6.8 Iceland

Iceland, in an isolated location east of Greenland and at the Arctic Circle in its northern territory, has required the protection offered by its membership in NATO, a nuclear alliance. Nevertheless, stationing nuclear weapons in the country would be unacceptable to its citizens. There have been several attempts to declare the country as a nuclear-weapon-free territory, by means of passage of legislation in the Althingi, the Iceland parliament. The most recent motion <sup>26</sup> passed in 2016. Nevertheless, all NATO members subscribe to a doctrine of nuclear deterrence.

#### 6.9 Canada

Canada has lengthy coastlines on three oceans, and a small population. <sup>27</sup>The scattered northern communities, population a few thousand or less, are accessible by plane or boat only. For remote communities, supplies of fuel, goods and food arrive annually by boat prior to the onset of winter. Medical treatment is available for minor ailments, but serious cases require a plane trip to a far away hospital. Indigenous hunters can no longer rely on traditional trips on the ice to acquire food. Ice roads that carry trucks are only safe for shorter periods. Thus, climate change is identified as the most significant cause of destabilization.

Military exercises in the Arctic by Canadian forces (Operation Nanook) are held each summer, but year-round military services, including search and rescue are supplied from bases in southern Canada that are 3-4 hours distant by plane. Canada has not provided a robust defence for its Arctic territory. General Wayne Eyre, Chief of the Defence Staff, recently warned  $^{28}$  that Canada needs an increased capacity to move troops to the Arctic as

<sup>25</sup> Arctic Strategy: Deterrence and Détente https://www.airuniversity.af.edu/JIPA/Display/Article/3173373/Arctic Strategy: Deterrence and Détente

<sup>&</sup>quot;That Iceland and its economic zone be declared a nuclear-free zone, taking account of international obligations, with a view to contributing to disarmament and peace." Parliamentary resolution on a national security policy for Iceland, Adopted by the Althingi (Iceland Parliament), 13 April 2016

Population of Canada is over 38 million <a href="https://www.worldometers.info/world-population/canada-population/">https://www.worldometers.info/world-population/canada-population/</a> The Canadian Arctic covers 40% of Canada's territory and is home to more than 200,000 inhabitants, more than half of whom are Indigenous.Oct 11, 2022 <a href="https://www.international.gc.ca">https://www.international.gc.ca</a>

<sup>28</sup> Steven Chase Top soldier warns Canada's 'tenuous hold' on Arctic will come under challenge in decades ahead <a href="https://www.theglobeandmail.com/politics/article-canada-arctic-territories-russia-china/">https://www.theglobeandmail.com/politics/article-canada-arctic-territories-russia-china/</a>

well as better underwater presence to track foreign activity entering the Canadian Arctic region. The protection of remote geography is waning when it should be increasing. While there is no immediate threat, Gen. Eyre recognized that significant lead time is required to add capacity. Both China and Russia have clear intentions of increasing their presence in the Arctic regions for economic benefit and political influence. For Canada, this could pose a threat to sovereignty. There is, to date, no indication of increased spending on military support for the Arctic.

Canada has a new multibillion dollar agreement with the United States to modernize NORAD, where the technical capability is out-of-date. It requires capability to track foreign flights and incoming hypersonic missiles over the Arctic. NORTHCOM,<sup>29</sup> a U.S. military division, is mandated to include awareness of threats to Canadian territory. These defence programs recognize that a route over the Arctic Ocean is the way to deliver a missile or bomber attack to North America.

# 7. China, a "Near-Arctic Nation"

China published a policy paper in 2018 in which it declared itself to be a "near-Arctic nation". By 2013, it had obtained Observer status at the Arctic Council. Its Snow Dragon nuclear powered ice breaker was the first to cross the Arctic via the North Pole, and now several new icebreakers continue to be active in the Arctic, for 'research'. China is preparing to take advantage of the economic opportunities offered by shorter-route shipping and overall Arctic resources. It intends to establish a 'Polar Silk Road'. China's aspirations in the Arctic are also political and military. A Sino-Russia Arctic Research Center was created in 2019.

The Peoples Liberation Army Navy (PLAN) submarines, aircraft carriers and surface vessels have been noted in the north Pacific, <sup>30</sup> presumably to monitor U.S. military activity near Alaska. There have been extensive additions to all segments of China's naval fleet, making that country the possessor of the most modern ships globally.

China seeks to shape domestic politics in Arctic nations, where possible establishing a base of land operations. China operates a research station in northern Iceland. Chinese companies <sup>31</sup>, using Chinese workers, have been involved in Greenlandic mining projects,

Eyeing Russia and China NORTHCOM head frets over US ability to respond to Arctic threats https://breakingdefense.com/2022/10/eyeing-russia-and-china-northcom-head-frets-over-us-ability-to-respond-to-arctic-threats/?utm\_campaign=BD%20Daily&utm\_medium=email&\_hsmi=229501174&\_hsenc=p2ANqtz-8Pckxmh8MA-rH3oCcz8Z5PlAOY4Nx19t6a9fa6cVXayzN7A6hq3YIHjVAFqMtetvne2LtfGoD-LocMKYGhHFeFETfOAA&utm\_content=229501174&utm\_source=hs\_email

<sup>30</sup> China's counteraction sends warships into US waters <a href="https://m.washingtontimes.com/news/2021/nov/9/chinas-counteraction-sends-warships-into-us-waters/">https://m.washingtontimes.com/news/2021/nov/9/chinas-counteraction-sends-warships-into-us-waters/</a>

<sup>31</sup> Gad, U. P., Graugaard, N. D., Holgersen, A., Jacobsen, M., Lave, N. & Schriver, N., 2021, China's Arctic Engagement: Following the Polar Silk Road to Greenland and Russa - Selected Articles from the Arctic Yearbook. Barnes, J., Exner-Pirot, H., Heininen, L. & Lackenbauer, P. W. (eds.). Peterborough, Canada: NAADSN, p.136-168.

but a proposed airport was rejected. China recently pursued a takeover of a zinc and gold mine in Canada with an inlet bordering on the Northwest Passage, but a Canadian Government review of the project refused the Chinese takeover. In the last few months Canada has ordered divestment <sup>32</sup> in three Canadian critical minerals companies owned by Chinese companies.

A summary <sup>33</sup> of China's Arctic activities and ambitions was recently published by the Brookings Institution. Since the start of the Ukraine war, Russia has relied on China <sup>34</sup> for cooperation in the Arctic. China and other Asian customers buy hydrocarbon products originating in Arctic Russia, thereby contributing to destabilization of the climate.

# 8. Cybersecurity

In recent years, Arctic communities have added communications capability, even in remote areas. Malicious cyberattacks are a possibility. Cyberattacks on infrastructure, for example, could have severe consequences compared to such events in the rest of the world. Equipment and/or expertise for recovery may not be available locally, resulting in significant delays in recovering vital services. In the pre-cyber period, communities had to be more self-sufficient; adding modern capability also introduced a new dependency.

An extensive network of undersea cables is the backbone of global communication. When a cable to Norway's Svalbard territory was cut, a backup cable was used until a repair could occur. However, it is still not known whether this was an accident or sabotage. A joint venture<sup>35</sup> has been concluded that will lay a cable on the Arctic seabed from Europe to Japan, speeding transmission. While benefits to Arctic communication will accrue, there is no assurance of outage protection or security measures to protect sensitive data.<sup>36</sup> In a very difficult physical environment, construction delays, cost overruns could be anticipated for over 20,000 km of cable, with estimated cost of \$1.2 billion.<sup>37</sup>

<sup>32</sup> Ottawa orders Chinese divestment in three Canadian critical minerals companies <a href="https://www.theglobeandmail.com/business/article-sinomine-chengze-lithium-zangge-foreign-critical-minerals-divestment/">https://www.theglobeandmail.com/business/article-sinomine-chengze-lithium-zangge-foreign-critical-minerals-divestment/</a>

Northern expedition – China's Arctic activities and ambitions <a href="https://www.brookings.edu/research/northern-expedition-chinas-arctic-activities-and-ambitions/">https://www.brookings.edu/research/northern-expedition-chinas-arctic-activities-and-ambitions/</a>

<sup>34</sup> China Russia Quietly Expanding Arctic Partnership <a href="https://news.usni.org/2022/10/11/china-russia-quietly-expanding-arctic-partnership-says-panel">https://news.usni.org/2022/10/11/china-russia-quietly-expanding-arctic-partnership-says-panel</a>

<sup>35</sup> Arctic data cables linking Europe to Japan secures first investment <a href="https://mww.reuters.com/technology.arctic-data-cable-linking-europe-japan-secures-first-investment-2022-12-02/">https://mww.reuters.com/technology.arctic-data-cable-linking-europe-japan-secures-first-investment-2022-12-02/</a>

<sup>36</sup> Underneath the Ice Undersea Cables the Arctic Circle and International Security https://www.thearcticinstitute.org/underneath-ice-undersea-cables-arctic-circle-international-security/

<sup>37</sup> What Will It Take to Connect the Arctic? \$1.2 Billion, 10,000 Miles of Fiber-Optic Cable and Patience <a href="https://www.wsj.com/articles/what-will-it-take-to-connect-the-arctic-1-2-billion-10-000-miles-of-fiber-optic-cable-and-patience-2af75543">https://www.wsj.com/articles/what-will-it-take-to-connect-the-arctic-1-2-billion-10-000-miles-of-fiber-optic-cable-and-patience-2af75543</a>

## 9. Conclusion

What happens in the Arctic does not stay in the Arctic – the reverse is also true. The present instability in the Arctic regions has been and continues to be caused by global geopolitics. Even climate change, more rapid in the Arctic, has its origins outside the Arctic.

The Chairship of the Arctic Council moves from Russia to Norway in May 2023, and two years later to the Kingdom of Denmark. Although Russia will still be excluded, the Arctic Council under Norway provides the opportunity to restore as much as is feasible of the pre-war work of the Arctic Council. Restoration of scientific collaboration could and should be a first step toward restoring stability.

The Permanent Participants (indigenous groups) could be a focal point for new and ongoing work. The Inuit Circumpolar Council includes a Russian group from the far northeast region of the country – perhaps informal inclusion might be feasible.

Some international agreements have continued in spite of the Russia -Ukraine conflict; the Search and Rescue Treaty, international Fishing Agreements are examples. This type of continuation may offer an opening to informally collaborate with some ongoing work of the Arctic Council.

The natural resources of Russia's Arctic region continue as a major economic support for the country. If Russia perceives that source of revenue is being limited by its war in Ukraine, then one might speculate that Russia would seek a negotiation to end the conflict.

Nordic countries, at Arctic conferences, were accustomed to describing the region as one of low military tension, but now that frequent military exercises are noted. <sup>38</sup>; multination negotiation might be required. It is the responsibility of the international community to work together to restore the peaceful cooperation of the Arctic.

Arne Holm Mar 17 2023 Barely Anyone Talks of Low Tension in the Arctic Anymore <a href="https://www.highnorthnews.com/en/barely-anyone-talks-low-tension-arctic-anymore">https://www.highnorthnews.com/en/barely-anyone-talks-low-tension-arctic-anymore</a>