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SECURITY CHALLENGES
IN THE HIGH NORTH

Preliminary Draft Report

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EXECUTIVE SUMMARY

Receding ice is expanding access to surface transit routes and subsurface resources in the Arctic, which are predicted to have a seismic impact on global trade and commodities markets. Greater access to the Arctic is driving increased attention to the region – from both Arctic and non-Arctic states.

Competing investments and visions of the Arctic's future risk changing its post-Cold War reputation from a region of peaceful cooperation to one of great power competition. Driving this new reality are two principal factors: a widening policy divergence between NATO Allies and Russia in the Euro-Atlantic area; and, partially related to the first, the growing effort by non-Arctic states, led by China, to claim a future stake in the 21st-century Arctic.

As Arctic economic activities grow, military investments are following close behind to protect new as well as long-standing interests. New Russian military investments have been the most significant, as the country increasingly faces a new exposed northern coast. China is also seeking the ways and means to expand its economic footprint and scientific research across the region – experts believe much of this is laying the groundwork for an eventual People's Liberation Army's presence.

Allies are taking steps to adapt their capabilities to defend current and potential future interests in the High North. A key shared concern is the maintenance of Allied freedom of navigation as the Arctic sea lanes will continue to grow in strategic importance. In light of the expected launch of the Strategic Concept revision in the near-term, Allies have the opportunity to outline NATO's approach to the rapidly evolving Arctic.

This preliminary draft report reviews the growing strategic relevance of the 21st century Arctic, and the subsequent impact increased attention to the region may have on the international security environment in general, and the Alliance's High Northern flank in particular.

I. INTRODUCTION

1. Significant environmental, economic, and geopolitical evolution in the Arctic is a key concern for Allies. Climate change is the key transformative motor creating a 21st-century Arctic, allowing for unprecedented (and longer) access to increasingly higher latitudes north. Receding Arctic ice is expanding access to surface transit routes and subsurface resources, could have a considerable impact on global trade and commodities markets.
2. As the Arctic's climate changes to allow for greater access, it is moving away from the periphery of international relations toward the centre. Two key developments are driving this shift in attention. The first is the crossover of the widening policy divergence between NATO Allies and Russia, which threatens to spill over great power competition into the region. The second, and partially related to the first, is the growing effort by non-Arctic states, led by China, to claim a future stake in the 21st-century Arctic.
3. The newly accessible Arctic is drawing increased economic and military investments by all eight Arctic states, as well as an expanding number of external actors. Russian military investments have been the most significant, but so have Russia's investments in its Northern Sea Route to facilitate economic development across its Arctic region. China is increasingly seeking new ways and means to expand its Arctic footprint via economic investments and widespread scientific research to shore up what it hopes will become its Polar Silk Road – concerns are mounting about these efforts laying the groundwork for China's future militarisation of the region.
4. Allies are certainly not blind to the growing importance of the High North and the new realities of the 21st century Arctic. As such, they are taking steps to adapt their capabilities to defend current and potential future interests in the High North. A key shared concern is the maintenance of Allied freedom of navigation as the Arctic sea lanes will continue to grow in strategic importance.
5. Historically, NATO's Arctic Allies have had divergent views about what role (if any) NATO should have in the High North. As a result of this lack of consensus, broader strategic thinking and collective NATO action toward the High North has remained off the table. As a result, Arctic Allies have dictated a more cautious, *ad hoc* approach to the region under their leading auspices. Due to the growing attention to the Arctic, however, there is increased advocacy for Allies to do more in the Arctic. In light of the expected launch of the Strategic Concept revision in the near-term, Allies may have the opportunity to outline their understanding of NATO's approach to the Arctic today.
6. This preliminary draft report will highlight the growing strategic relevance of the 21st century Arctic. It will review the key variables driving an increasingly global interest in the region, and the subsequent impact these are having on the international security environment in general, and the Alliance's High Northern flank in particular. It will conclude with recommendations for NATO parliamentarians as they consider the issue and potentially debate their own national interests and investments in the High North.

II. NATO'S NORTHERN FLANK – HISTORICAL STRATEGIC SIGNIFICANCE AND EMERGING INTERESTS

A. THE COLD WAR ARCTIC: A REGION OF MAJOR STRATEGIC IMPORTANCE

7. Despite being mostly frozen over with sheet ice for the majority of the year, the Arctic was strategically significant throughout the Cold War. The north pole presented the shortest flight path for US and Russian ICBMs and long-range bombers to their targets. And the expansive, frigid, and deep waters provided a unique form of cover for submarine operations. The Arctic also offered two areas to spill forces out into either the Atlantic or the Pacific, from which the Soviet Union probed for weak spots.¹

8. Due to these strategic possibilities, the Arctic region was quite militarised. To defend its northern coast, the USSR erected an array of air bases, naval ports, as well as radars and air defence systems. The advent of the Delta-class SSBN in 1973 allowed the USSR the theoretical ability to launch its missiles to targets in North America (Dyndal, 2017). To protect these key strategic assets, the USSR built up significant bastion defences set up around the Kola Peninsula in the Barents Sea and, later, in the Sea of Okhotsk. Over time Moscow dedicated over three quarters of the Northern and Pacific Fleets' attack submarines, almost the entirety of their surface fleets, and hundreds of aircraft to the defence of its SSBNs (Delta and, later, Typhoon-class).

9. To defend and deter against potential Soviet air and sea threats emanating from the Arctic, Allies also invested heavily in the region. The United States and Canada worked together, via the establishment of the North American Air Defense Command in 1957, to develop and deploy the intelligence, surveillance, and reconnaissance (ISR) assets (from radars to aircraft) necessary to detect and counter Soviet long-range bombers and evolving missile threats (Winkler, 1997; Holroyd, 1990)².

10. The GIUK gap represented the line south that Soviet forces needed to reach to disrupt transatlantic supply lines between North American and European Allies, which would be vital to any Allied major war effort on the European continent and, before the evolution of its SLBM capacity in the 1970s, its nuclear strike missions. To protect the GIUK gap, Allies invested heavily in ISR capabilities across their area of responsibility in the High North. These ranged from maritime patrol aircraft and surface ships to submarines and a complex array of undersea sonar installations (Long & Green, 2014; Smith & Hendrix, 2017). Allied forces also regularly engaged in cold weather interoperability training exercises, and High North patrols at sea and on land.

B. POST-COLD WAR ARCTIC: A REGION OF "PEACEFUL COOPERATION" VIA THE ARCTIC COUNCIL

11. In 1987, General Secretary Mikhail Gorbachev, gave a speech in Murmansk signalling the USSR's desire to foster 'peaceful cooperation' in the region (Gorbachev, 1987). After the collapse of the Soviet Union, the Arctic did indeed become an area of 'high north, low tension', relatively isolated from global rivalries (Lanteigne, 2019). Further, as the new Russian state emerged significantly weakened after the collapse of the Soviet Union in 1991, and NATO Allies became focused on regional stability operations in the Balkans and then expeditionary counterinsurgency and counterterrorism operations, the Arctic faded in strategic importance.

¹ Access to the Northern Atlantic was possible for the Soviet fleet if they were able to run the Greenland-Iceland-United Kingdom (GIUK) gap.

² A key element of this being the Distant Early Warning (DEW) Line system of radar stations stretching from the far northern reaches of Alaska and Canada and across to Greenland and Iceland (Canada DND, 2018). The DEW was replaced by the North Warning System (NWS) in 1988, which is still in service.

12. As a result, many Arctic assets, considered no longer useful, were decommissioned, retired, or withdrawn as they became unnecessary. In parallel, key skills in areas such as anti-submarine warfare and significant cold weather interoperability training atrophied. In place of Cold War militarisation, efforts by all Arctic states reflected a genuine desire to indeed make the region one of peaceful cooperation. The formation of the Arctic Council in 1996 is emblematic of these efforts.

13. Arctic leaders intentionally left security affairs off the agenda when drawing up the parameters of the body's remit. The Council decided to focus on regional environmental protection and sustainable development issues (Murray, 2014). The Council's founding eight Arctic states (Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States) granted permanent participation status to the principal organisations representing the region's indigenous population, as well as observer status to a range of state and non-state actors with Arctic interests.³

III. THE 21ST CENTURY ARCTIC

14. Today's Arctic is vastly different than during the Cold War. Accelerated climate change is warming the Arctic at three times the global mean (Berardelli, 2020). This dramatic temperature shift is translating into rapidly disappearing ice sheets and sea ice, disrupted air and sea currents, and, as a result, significantly changing regional ecosystem and geography (IPCC 2019; NASA, 2020).

15. Arctic climate change is having significant surface and subsurface effects that are driving increased attention to the region from both the eight Arctic states, as well as a growing number of external actors. There are three principal categories of potential expanded economic opportunity in the Arctic – commercial transit, seabed mining and excavation, and fishing.

16. Retreating ice sheets and sea ice are allowing for longer and wider access to Arctic shipping lanes for commercial transit. Less ice also means potentially easier access to the bounty of natural resources predicted to be on the Arctic seabed. Warmer waters in the North Atlantic and Pacific are also driving ocean fish stocks further north in search of the colder waters they need to survive.

17. While these changes have the potential for significant economic impact, the longer-term trends of climate change in the Arctic will likely have significant broader security implications extending far beyond the Arctic Ocean. The pull of increased access and economic opportunities is driving significant new (or planned) infrastructural investments and, to a degree, military investments to protect them. In parallel, however, it is becoming increasingly clear the region is no longer peripheral to the new 'great game' between the great powers. As elements of this new great game spill over into the Arctic, the region risks losing its unique character as a zone of peaceful cooperation.

A. NEW WAYS TO NAVIGATE THE ARCTIC

³ Thirteen countries - Germany, the Netherlands, Poland, the United Kingdom (1998), France (2000), Spain (2006); China, South Korea, India, Italy, Japan, Singapore (2013); Switzerland (2017) -, a large number of inter-parliamentary and inter-governmental organisations (including some UN bodies) and eleven NGOs have observer status at the Arctic Council. The observer members included in 2013 are for the first time non-European states; they thus bring the share of the world's population represented in the forum to 50%, which contributes to the global legitimacy of the Council, according to the wish of the Swedish chairmanship to strengthen the Arctic Council to make it the pre-eminent forum for regional issues. For more information see: <http://www.observatoire-arctique.fr/approche-institutionnelle/les-organisations-et-forums-de-larctique/conseil-de-larctique/>

18. The retreating ice offers two principal transit avenues through the Arctic, the Northern Sea Route and the Northwest Passage. The **Northern Sea Route (NSR)** extends approximately 4,800 km along Russia's Arctic coastline, but lengths vary according to the lane selected and ice conditions. The **Northwest Passage (NWP)** weaves through the archipelagos of Canada's high north. While the NWP is a less viable route due to higher volumes of ice and more narrow and shallow straits, the NSR is already a viable shipping route for part of the year.

Examples of Distances between Northern Hemisphere ports, transiting Panama, Suez and Malacca or the Arctic Passages (political obstacles to navigation are not considered)

Origine-destination	Panama	Passage du Nord-Ouest*	Passage du Nord-Est**	Suez et Malacca
Londres -Yokohama	23 300	14 080	13 841	21 200
Marseille - Yokohama	24 030	16 720	17 954	17 800
Marseille - Shanghai	26 038	19 160	19 718	16 460
Marseille - Singapour	29 484	21 600	23 672	12 420
Rotterdam - Singapour	28 994	19 900	19 641	15 950
Rotterdam - Shanghai	25 588	16 100	15 793	19 550
Rotterdam - Yokohama	23 470	13 950	13 360	21 170
Hambourg - Seattle	17 110	13 410	12 770	29 780
Rotterdam - Vancouver	16 350	14 330	13 200	28 400
Rotterdam - Los Angeles	14 490	15 120	15 552	29 750
Lisbonne-Los Angeles	14 165	14 940	16 150	27 225
Lisbonne-Singapour	25 341	19 740	20 070	13 191
Lisbonne-Yokohama	21 590	14 240	15 230	18 724
Gioia Tauro (Italie) - Hongkong	25 934	20 230	20 950	14 093
Gioia Tauro - Singapour	29 460	21 700	23 180	11 430

(Source : Arctic geopolitics: oil and sea routes at the heart of regional rivalries? Frédéric Lasserre, 2010.)

19. In 2020, the NSR was ice-free for a record 88 days, and Russian LNG ships proved in 2021 that winter transit along the route is possible without icebreaker assistance (Maritime Magazine, 2020: Maritime Executive; 2021(b)). Shipping along the NSR has tripled in recent years, from 10.7 million tons in 2017 to over 32 million tons in 2020 (Staalesen, 2020(c)). Cargo along the NSR is mostly Russian ships moving oil and gas along the western half of the route, but Chinese ships are the second-most recorded vessels and come along the entire route (Humpert, 2020). 2020 witnessed a record 62 full-length transits (Humpert, 2020). Conversely, due to shifting ice patterns, vessel transit in the NWP actually declined in 2020.

20. Still, when compared with Suez Canal traffic, the NSR pales in comparison: In 2020, almost 19,000 ships carried 1.17 billion tons through the Egyptian canal (Maritime Executive, 2021(a)). But the *rate* of change is demonstrating the NSR is coming online quickly, and, as over 90% of

global trade moves over water and continues to grow, use of the NSR will also likely grow in parallel. Further, experts at the OECD have predicted the volume seaborne trade could double by 2035 – congested sea lanes of communication (SLOCs) will certainly drive some to seek alternative routes (OECD, 2018).

B. RICH NATURAL RESOURCES UNDER THE ARCTIC SEABED (AND IN THE WATER)

21. There is also significant new economic potential in the Arctic. Estimates vary and new discoveries are possible with increased access to the region, but experts still often cite a 2008 US Geological Survey study, which remains highly hypothetical, that suggests the Arctic may hold 13 percent of the globe's oil and 30 percent of its existing gas reserves (USGS, 2008). In addition, deposits of other valuable minerals such as nickel, copper, gold, tin, silver and zinc are seen as potentially economically significant (Glasby, 2010; Bergquist, 2020). The presence of "rare earth" metals, particularly in Greenland, which is said to contain 25% of the world's reserves, could provide an alternative to the Chinese monopoly on the production of these strategic metals. New discoveries are just over the horizon: for example, in 2020, Norwegian scientists identified what could be USD \$100bn worth of mineral deposits, including gold, silver, and zinc on the seabed near Svalbard (Bergquist, 2020).

22. In addition to the deposits under the Arctic seabed, the ocean's waters are also filling up with fish as warmer waters to the south push stocks north in search of cooler water for their survival. The Arctic Ocean already accounts for 10 percent of global commercial fishing. (AMAP, 2018) Experts estimate that this will grow as the North Atlantic and Pacific continue to warm, themselves representing 40 percent of global fishing (UN, 2020).

C. THE ARCTIC TOURISM BOOM

23. Increased access to the Arctic is also changing the face of tourism in the region. A recent study found a four-fold increase in summer tourism and a 600 percent increase in winter tourism in the Arctic from 2006-2016 (Runge, et. al., 2020). Regional experts note concern that such high volumes of tourism may overwhelm regional states' already strained SAR capacities, in addition to causing potentially significant damage to an already delicate regional ecosystem (Runge, et al, 2020).

IV. ALLIED COMPETITORS' GROWING ARCTIC AMBITIONS

24. The new potentialities of the 21st-Century Arctic are driving new attention and investments (economic and military) by Arctic states and a growing number of non-Arctic states hoping to have a stake in the potential benefits offered by the new 21st-century Arctic.

25. Due to the increased attention to the Arctic which, despite its relative size, has the potential to play a leading role in the global economy, the region's reputation as an area of peaceful and pragmatic cooperation in the interest of the simultaneously delicate and harsh environment will be tested. The following sections highlight new investments and activities by key players.

A. RUSSIA

26. Investment in the Russian Arctic declined significantly after the Cold War. Though Russian military attention to the region started to tick back up again at the end of the 2000s, new investments lagged behind. As a result, for decades Russia's Arctic was a chronically underfunded and structurally weak region. A new Arctic focus by Russia is relatively recent, and, among the Arctic states, Russia has made the most significant moves in recent years to develop the region both economically and militarily.

1. The Arctic as a Guarantor of Russia's Future Development and Place in the International Economy

27. In May 2018, Vladimir Putin announced a series of 12 'national projects' aimed at modernising and revitalising the Russian economy and society. One announced boosting the volume of goods transiting on the NSR to 80 million tons by 2024 (Staalesen, 2018(a)). This represents an almost eightfold increase in the volume transiting the route in the year before the declaration.

28. Though experts, and even Russian government officials, are increasingly sceptical Russia will be able to achieve this goal, the May 2018 Decree benchmark has added significantly to an already growing attention by Russian business and government to the development of the Arctic (Moe, 2020; Staalesen, 2020(a)). In December 2018, Russian Minister of Natural Resources Dmitry Kobytkin announced plans to invest 5.5 trillion roubles (about EUR61bn or USD75bn) on regional infrastructure and natural resources development – he noted the sum would almost triple to 13,5 trillion roubles by 2050 (Staalesen, 2018(b)). Only a fraction of the sum will be granted by the government, the rest is to come from Russian business.

29. The lure of the Arctic's natural resources is a strong incentive for Russian business, a full 10% of the Russian GDP and 20% of Russia's total exports are already Arctic-derived (Novy Isvestia, 2019). Russia's Arctic today accounts for more than 90 percent of the country's natural gas and approximately 17 percent of its oil production (Kluge, 2020). Untapped reserves offer the potential for much more.⁴ As such, Rosatom, Novatek, Rosneft, Gazprom, Nornickel, and others will invest the balance needed for the government's ambitious Arctic development plan to exploit and benefit from the significant reserves of gas, oil, nickel, copper, and coal in the region (Staalesen, 2018; Kluge, 2020).

30. According to former Prime Minister Medvedev, the focus of the development along the NSR will be on 'anchor' projects to ensure year-round use – meaning modern port facilities for oil and gas storage and transfer, connecting roads to extraction sites, etc. As experts note, however, there are some high hurdles to Russia's Arctic investment plans. Among the most significant are those due to climate change and ongoing international sanctions (Kluge, 2020).

31. As a result of the thawing permafrost in the region due to rising temperatures, experts estimate a full 70 percent of existing infrastructure will need to be upgraded/reconstructed to adapt to the new environment. Further, the lure of off-shore Arctic oil and gas exploration is hampered by the lack of access to the necessary technologies as a result of the continued Western sanctions on Russia (Kluge, 2020). A general lack of capital apparently still remains to enable the necessary linkages of the ports from West-to-East; while some significant investments have been made (or promised) by Chinese companies, there is a general Russian reluctance to allow China too much leverage in its Arctic enterprises (Hsiung, 2020; Pincus, 2020; Sun, 2018).

32. In light of the changes due to the rapid warming of the Arctic, Russia has sought to tighten its *de jure* and *de facto* control over the NSR in recent years. In December 2017, the Russian parliament adopted a law limiting coal, oil, and natural gas loading at NSR ports to Russian-flagged ships (Maritime Executive, 2019). In April 2019, Moscow announced it would attempt to tighten its control over the NSR by stating that foreign ships intending to traverse the route through Russia's

⁴ For example, according to former Prime Minister Medvedev, Novatek's two LNG projects alone, the Yamal LNG and the Arctic LNG-2 will net an additional (and much needed) USD 30bn in foreign currency to Moscow's coffers, and add an additional 40million tons annually shipped along the NSR. See Staalesen, 2018(b)

Exclusive Economic Zone (EEZ) would be required to declare their transit intentions 45 days in advance, accept a Russian pilot aboard their ship for the duration of the voyage, and pay increased fees (Ilyushina, 2019).

2. Significant Military Reinvestment

33. On 6 March 2020 Russia released its Arctic strategy through 2035: *The Basic Principles of Russian Federation State Policy in the Arctic to 2035* (Basic Principles 2035). The document defines Russia's Arctic interests and goals for the region, with a ways and means framework to achieve them. Basic Principles 2035 departs from its 2008 predecessor (Basic Principles 2020) in two keyways; it notes the necessity of guaranteeing Russia's 'sovereignty and territorial integrity', and the goal of developing the NSR 'as a globally competitive national transport corridor' (Klimenko, 2020).

34. While the second is not surprising, given Putin's 2018 decree, underscoring the need to guarantee territorial integrity and sovereignty highlight Russia's concern of the reality of a new open border to defend. As Arctic access increases, and, if Russia is successful in developing the NSR, Russia is certainly exposing its Arctic flank to increased potential threat. Further, the Basic Principles 2035 document does underscore the perception of growing conflict potential in the Arctic as another driver of the need for an increased permanent expansion of Russia's military presence there.

35. Russia's 2017 naval doctrine states clearly the desire to make the country a modern naval power, capable of dominance in the Arctic and power projection into the Atlantic and Pacific – access to both oceans is guaranteed by the NSR, which, therefore needs to be equipped with modern defence systems as well as upgraded commodity exchange infrastructure to meet its dualpurpose (Gorenburg, 2017). Overseeing the region's security is the Northern Fleet, which is responsible for most of the Russian Arctic (to include the coastline and the NSR).

36. The Northern Fleet was upgraded to military district status as of 1 January 2021. (Humpert, 2021) Since 2014, the Northern Fleet had been operating as a joint strategic command (within the Western District) with geographic responsibilities (Arctic) that had been given additional both air and ground force capabilities. (IISS, 2015) Air force and air defence assets were consolidated into the 45th Air and Air Defence Army in 2015, under the broader command of the Northern Fleet. Its different components – naval, air, and ground (special forces) – participated significantly in Russia's operation in Syria as a means of both testing new equipment, as well as force interoperability (Staalesen, 2019(a)).

37. As noted in the DSC 2020 General Report on Russian military modernisation, the Northern Fleet had been a key recipient of the SAP 2020 funding to modernise the Russian naval forces (NATO PA, 2020(a)). A key focus of the modernisation has been the provision of new submarines – the new Borei-II ballistic missile submarine (SSBN), for example, was delivered in 2020; the Akula II attack submarine returned to service in the same period; and the Russian Navy's most advanced multipurpose Yasen-M guided-missile submarine *Kazan* began sea trials in late 2020 and will join its partner, the *Severodvinsk*, in June 2021 (Nilsen, 2021). Experts note the *Kazan* will deploy with the sea versions of the Kalibr and Oniks cruise missiles and new *Zirkon* hypersonic cruise missile, as well as torpedoes and surface-to-air missiles (Nilsen, 2021). In addition, the Northern Fleet also boasts the Oscar II *Belgorod*, the largest in the world, which is reportedly capable of carrying the planned long-range nuclear-armed autonomous torpedo (Poseidon), depositing nuclear reactors on the seabed, as well as serving as the launching platform for the Losharik deep-diving research vessel (Nilsen, 2019). The Poseidon torpedo is reportedly already undergoing testing in the Arctic (Walsh, 2021).

38. To defend its growing Arctic interests and achieve its naval defence ambitions, Russia is also making a concerted effort to upgrade its Arctic military infrastructure. Approximately 50 former

Soviet-era Arctic outposts have been reopened and/or revamped in recent years (Kluge, 2020; Melino and Conley, 2020). In addition, Russia claims it has built 475 new military structures in its Arctic region stretching from the Barents Sea to the Bering Straits since 2012 (Tass, 2019). These investments include bases, listening and radar stations, and seaports. In February 2021, Russia announced its intention to build more new bases along its northern Arctic border; noting a concern about increased Allied presence 'on Russia's borders' (AFP, 2021).

39. This includes key focal points for Russia's military infrastructure investments stretch across Russia's European Arctic, with the most significant in the Kola Peninsula out to Novaya Zemlya. Tiksi, and the Kotelnny and Wrangel Islands are key focal points moving out into Russia's Arctic outlet in the Pacific. Across these inlets and islands, Russia has reconstructed its concept of bastion defence with the installation of advanced air defence systems (S-300, 350, 400) and upgraded radars (Sopka-2) (Kluge, 2020; Melino and Conley, 2020). Russia has also stationed three Rezonans-N radars in its Arctic regions; two active in the Kola Peninsula and another in Novaya Zemlya, due to be combat ready in June 2021 (Ong, 2021). The Rezonans radar is designed to counter hypersonic missile threats, being able to detect targets at a speed up to Mach 20, and acquire targets at a distance of 600km – with a range of 1,200km for ballistic missiles to an altitude of 100km (Ong, 2021). The coasts are also equipped with Pantsir-SA-22s and K-300P Bastion-P missile systems. It was recently reported that Russia has deployed (on a test basis) the supersonic interceptor Mig-31BM to its most northern military airbase (Rogachovo) on Novaya Zemlya island, over 800km northeast of the Kola Peninsula, dividing the Barents and Kara Seas (Staalesen, 2021). Russia's layered and comprehensive defence architecture in the Arctic fits the Western definition of an advanced A2/AD system (Melino and Conley, 2020).

40. Russia also increased its icebreaking ability to guarantee year-round access to even its most remote Arctic areas by investing in new nuclear-powered heavy icebreakers. The Russian fleet already has approximately 40 active icebreakers – there are plans to build another 13 heavy-duty icebreakers (nine nuclear powered) by 2035 (Reuters, 2019). By contrast, the United States has two operational icebreakers (one heavy, the other medium – though it is investing in more) and China will soon have three; one acquired, the other domestically built, and it is seeking to build a nuclear-powered model in the near future (Rodman, 2019; O'Rourke, 2021).

3. Increased Russian Military Activity and Brinkmanship

41. As NATO experts informed DSC members during a 2015 visit to Norway, Russian military activity in the Arctic revived in earnest around 2006, which was evidenced by an increase in the number of air force sorties and naval activities. Still, as briefers noted at the time, the activity of Russian Arctic fighter jet sorties up until 2014 averaged around 10 percent of Russian military activity in the region during the Cold War.

42. Since 2014, the scale and scope of Russian military presence, exercises, and demonstrations of force in the Arctic have evolved significantly. In early 2014, for example, Russian Su-27 Fighters and Tu-22M bombers simulated attack runs against Poland, the Baltic nations, and Sweden. Russian submarines have disrupted NATO exercise in the High North, and in October 2019, ten Russian submarines slipped down the coast of Norway to the North Atlantic in the biggest coordinated submarine manoeuvre since the Cold War (Kluge, 2020).

43. Russia has also significantly increased its military exercising in the Arctic. In 2015, a large-scale, no-notice 'snap' exercise involved a significant Arctic element, wherein 40,000 troops, 100 aircraft and 40 ships and 15 submarines conducted complex exercises – one involving a carrier group, fighters, bombers, and submarine targeting aircraft providing cover for a large-scale airdrop on Franz Josef's Land. Russia's annual strategic exercises have been growing in size and scope over the last decade and have also increasingly had Arctic elements – particularly Vostok 2018, and, to a degree, Tsentr 2019, wherein Russia tested equipment and service interoperability in the Arctic to demonstrate the ability to defend the region's growing investments along the

Northern Sea Route. In addition, the Russian Navy's annual Ocean Shield exercise has grown in size and complexity in recent years and focused on demonstrating Russia's new Arctic military capabilities. In what could be viewed as a direct response to NATO's 2018 Trident Juncture (TRJE18), Russia's Ocean Shield 2019 witnessed 30 Russian naval vessels (surface, submarine, and supply ships) engage in a complex demonstration of the modern Russian Navy's ability to block NATO's access to the Baltic, North, and Norwegian Seas (Staalesen, 2019). In March 2021, three Russian nuclear ballistic submarines surfaced simultaneously through 1.5-meter-thick ice, within a 300-meter radius, during exercises – the extremely challenging and sophisticated manoeuvre was meant as a demonstration of Russia's growing military prowess in the Arctic (Reuters, 2021).

44. These examples are not complete, but rather representative of the steady uptick in military brinkmanship. It should be noted, however, Russia systematically notifies about its regional exercises. As Norwegian Air Force Command briefers told a DSC delegation in 2015, the quality of Russian forces' activity in the Arctic has been steadily improving – air and naval forces are capable of operating in larger formations and perform more complicated tasks on longer and more challenging routes. Concerns among NATO Allies are that Russian forces' improving firepower and manoeuvrability throughout the Arctic reduces the warning time and complicates threat analysis.

B. CHINA

45. While significant attention is rightly paid to Russia's current and planned near-future economic and military investments in the Arctic, China's eye on the region is also garnering increased attention. Access to the NSR and other transit routes, the increasing bounty of fish in the seas, and the petroleum and minerals beneath the seabed are longer-term targets of the Chinese government.

46. In 2018 China raised eyebrows with the publication of its Arctic Strategy (PRC, 2018). Therein, China presents itself as a 'near' Arctic state and that the country sees the opening transit routes as added SLOCs for its Belt and Road Initiative – called the 'Polar Silk Road', for which it outlined a basic economic plan in the document. While the policy document sticks to economic, environmental protection, and international cooperation in the region, it did elicit the question about Chinese military expansion in the region to protect its potential future Arctic interests (Sengupta, 2019; Pincus, 2018).

47. China has been working to find investment partners across almost every Arctic nation. China is seeking to find the ways to contribute to, and thereby anchor a stake in, Russia's NSR development. Already, China has guaranteed a 30% investment holding in the Yamal Peninsula LNG project and it is lined up to support other efforts in the oil, gas, and mining sectors along the route (Sengupta and Meyers, 2019). It is working to expand its mining of rare earth minerals in Greenland, and assisting a Finnish company link Northern Europe and Asia via a long undersea communications cable (Sengupta and Meyers, 2019; Lanteigne, 2019). China has also established research centres in Iceland and Norway (Eiterjord, 2019; Lino, 2020).

48. An ice-free and China-friendly NSR would be an economic boon, the distance between Shanghai and German ports is 4,600kms shorter along the NSR than through the Suez Canal (Lino, 2020). China's ability to increase its stake in the range of projects to develop the natural resources underneath the Arctic seabed are also luring Beijing in further. Finally, between the surface routes and the seabed lies the potential of significant new fish stocks – China consumes more fish globally than any other country and is increasingly driven further away from its own shores due to pollution and overfishing (Hoag, 2016).

49. Chinese Arctic military activity has been, thus far, quite limited. The Russia-China joint Arctic exercise the US Coast Guard made public recently, as mentioned below, remains a relative

anomaly (Larter, 2020). Many experts believe China's increased scientific activities in the region, alongside its clear interest in gaining an economic foothold via a range of investment activities from investment in NSR ports to buying mining rights or operations, is an exploratory effort to get a clearer picture to enable a future naval deployment in the region, which could include submarines (Pincus and Berbrick, 2018).

V. THE HIGH NORTH: ONCE AGAIN A FOCUS OF ALLIED ATTENTION

A. THE CAUTIOUS EVOLUTION OF NATO'S APPROACH

50. While Russia's Arctic coastline may account for just over 50 percent of the total Arctic Ocean coastline, NATO Allies represent the rest, and, of the eight official Arctic states, five are NATO Allies (Canada, Denmark, Iceland, Norway, and Iceland) and two (Finland and Sweden) are NATO Enhanced Opportunity Partners. As such, NATO has a clear High North interest.

51. As noted above, the Alliance maintained an active and watchful presence in the Arctic throughout the Cold War. While this was principally upheld by the Alliance's Arctic states themselves, many other non-Arctic states participated in Alliance activities in the High North from exercises to surveillance patrols. Continued divergent viewpoints⁵ among Allies about the exact role NATO should have in the Arctic blocks policy consensus. Despite this, the historical understanding that NATO Arctic states take the lead, or even act alone, with regards to any NATO activity in the Arctic continues to prevail.

52. The lack of Allied consensus about NATO's role in the Arctic has kept the region largely out of official documents and statements. As such, the Alliance as a whole has no official security concept for the region. Yet, the Alliance has always had a presence in the High North Atlantic and Arctic with no defined *northern limit* (SACEUR's Arctic ends where NORAD's Arctic begins).

53. In recent years, however, and in reaction to increased military activities in the region by Russia, particularly after 2014, as mentioned above, Allies and their partners in the region have been forced to reassess their strategic focus on the Arctic. As NATO Secretary General Jens Stoltenberg told members of the NATO Parliamentary Assembly during its 2015 Annual Session in Norway, "The High North is important for NATO Allies together, it is our common northern flank...We must understand that Russia's posture in the area is changing." (NATO PA, 2015). The rapidly growing interest in the Arctic by non-Arctic states, punctuated by the increased interests of China, has heightened concerns among Allies of the increasing complexity of the region's security environment (Sengupta, 2019; NATO Interviews 1, 2021).

54. In parallel to NATO's significant adaptation of its defence and deterrence posture since 2014, most notably in Europe, the Alliance also made parallel moves to increase defence capabilities in the North Atlantic. The 2018 Brussels Summit established Joint Force Command Norfolk to oversee the protection of transatlantic lines of communication and Alliance anti-submarine warfare activities – which signalled a renewed strategic attention to threats capable of descending from the High North to disrupt Allied freedom of manoeuvre in the North Atlantic. Later that year, the Alliance executed TRJE18, its largest exercise since the Cold War, which practiced complex large-scale transatlantic air, land, and sea manoeuvres, with a specific focus of reinforcing Norway in a crisis. Iceland, Finland, and Sweden were also hosts of TRJE18.

55. In October 2020, NATO announced a memorandum of understanding between Allied Maritime Command (MARCOM) and the Danish Joint Arctic Command (JACO) to help complete

⁵ Even using the two terms simultaneously, NATO and Arctic, has pushed some NATO Arctic States to advocate for the region to be referred to simply as the *High North*.

SACEUR's picture of the GIUK GAP. JACO has a mandate of surveilling and enforcing the sovereignty and military defence of Greenland and the Faroe Islands: As NATO MARCOM notes, JACO's area of responsibility is vast, "from the Faroe Islands to the Greenland Sea and the Arctic Sea to the North, and across the Denmark Strait and Irminger Sea to the Davis Strait and Baffin Bay." (MARCOM, 2020).

B. THE SPECIFIC ROLE OF ALLIES AND PARTNERS

1. Nordic Allies and Partners

56. In April 2015, the Defence Ministers of Denmark, Finland, Iceland, Norway, and Sweden took steps to strengthen an already longstanding defense partnership, known as Nordic Defence Cooperation (NORDEFECO), by agreeing to increase joint exercising and intelligence exchanges, as well as to upgrade equipment and strengthen defence industrial cooperation (Bentzrød, 2015). In November 2018, NORDEFECO Defence Ministers signed on to 'Vision 2025', which sets out an ambitious political framework for the group of nations' close defence cooperation (NORDEFECO, 2018). On 23 September 2020, the Defence Ministers of Finland, Norway, and Sweden signed a trilateral agreement seen as the first practical step in implementing the Vision 2025 goals (Staalesen, 2020).

57. Individually the Nordic Allies and Partners have also taken steps to improve their capabilities in the High North in recent years. This has translated into significant investments by all in new surface ships and submarines, maritime patrol aircraft, radar systems, and space-based assets. These investments are demonstrating the role each nation is seeking to play in not only maintaining the security of the transatlantic space for the Alliance, but also in maintaining an accurate picture of the evolving Arctic. For example, Iceland has worked closely with the United States and its Nordic Allies to make the island a key anchor for NATO maritime surveillance aircraft, as recent renovations to airfields, like the one in Keflavik, allow for expanded storage of Allied P-8 Poseidon 'submarine-hunter' aircraft and thereby expanding the Alliance's Anti-Submarine Warfare (ASW) reach. Iceland and Norway have also started taking turns hosting MARCOM's annual Dynamic Mongoose, a NATO ASW exercise.

58. Norway has contributed to the Allies' overall northern warfare expertise through its advanced facilities and cooperative training exercises. In January 2016, NATO's Centre of Excellence for Cold Weather Operations was combined with the Norwegian School of Winter Warfare, which has allowed Norway to lead on cold weather training. Norway hosts a range of exercises throughout the year to assist Allies and partners' air, land, and sea forces train in challenging northern conditions – the largest in recent decades being TRJE18. Norway is also acquiring five new P-8 MPAs and replacing its submarine fleet to assist with the vast Area of Responsibility (AOR) of the Norwegian Navy, but to also help Allies understand the evolving High North security environment.

59. In February 2021, Denmark announced a significant new investment of DKK 1.5bn (USD 240 million) to improve Danish defence capabilities in the Arctic and North Atlantic (DMD, 2021). The thrust of the investment will focus on high-tech surveillance capabilities, but also increased presence and joint training with the Faroe Islands and Greenland. The most significant investments will go to air surveillance radar on the Faroe Islands, long endurance RPAs (drones), and additional space-based assets, all of which military and civilian experts on the region noted are essential to a clearer picture of the Arctic (DMD, 2021). As the Danish Government noted, these new investments will take place in cooperation with the United States and other Arctic Allies, "while founded in NATO" (DMD, 2021).

2. The United States and Canada

60. The United States has made a strategic focus on activities in the High North a clear priority in recent years. Since 2014, the United States has worked with Iceland to develop infrastructure and

facilitate deployments to Keflavik Air Base and 330 US Marines deployed central Norway for a rotational presence (the first time since WWII). In 2018, the United States reactivated its 2nd Fleet, in response to the changing security environment in the Atlantic and the Arctic, as a manoeuvre arm capable of performing missions for either US NAVNORTH or US NAVEUR.”⁶. This large-scale ocean manoeuvring warfare unit has considerably altered US posture in the North Atlantic and Arctic.⁷ In the last two years, the US Department of Defence, as well as the US Air Force, and, most recently, the US Navy and Army have all released new Arctic strategies.

61. The United States has also increased its cooperation with Arctic Allies and partners. In recent years, the United States has worked to strengthen its defence cooperation with both Sweden and Finland via the signing of a tri-lateral defence agreement in 2018 (Mehta, 2018). Strengthened trade ties with Iceland and defence cooperation with Denmark have also followed suit. In addition, the U.S. has increased its presence on routine operations and via exercising in the High North and Arctic in recent years – annual examples are *Exercise Dynamic Mongoose* off the shores of Iceland, *Operation Nanook-Nunalivut* in the North Atlantic above the Arctic Circle, and Marine exercises *Cold Response* and *Arctic Edge* (US Navy, 2021). In addition, the U.S. has restarted Northern Viking, a US-Iceland bilateral exercise.

62. Canada has also been investing in upgraded capabilities to operate its forces in the High North effectively and to contribute to the Alliance’s overall picture of the area. Perhaps the most significant steps have been taken by the Canadian Navy. The Canadian Government recently selected the ASW-optimised Type 26 frigate to replace its ageing Halifax-class frigate and has also committed to upgrading their Victoria-class submarines (Alison, 2018). The new Harry DeWolf-class Arctic and Offshore Patrol Ships (AOPS) is a cutting-edge offshore patrol ship capable of long duration operations in Arctic conditions, and is the anchor of Canada’s increasing presence in the Arctic – five in total have been ordered by the government in Ottawa, the first of which was delivered in July 2020 (Navy News, 2021).

63. The early warning radar system under joint US-Canada command for the atmospheric air defence of North American, the Northern Warning System (NWS) mentioned above, is reaching the end of its lifecycle in 2024. A discussion is underway about the new system that will replace the NWS. While proposals for the scale and scope of a new system are currently being debated, the U.S. and Canada will have to split 60/40 the upgrade costs, estimated to be between USD 11-15bn. (Brewster, 2021) Both the United States and Canadian governments are currently deciding upon the appropriate course of action to upgrade the system.

3. The Unique Cases of the United Kingdom and France

64. The United Kingdom, alongside the United States, has been working to increase its maritime and naval air capabilities to be fit for purpose for the Arctic of the 21st century. In recent years, the U.K. has paid significant attention to the renewal of its maritime forces. As a key task of the UK maritime forces is to surveil the GIUK Gap, among the key new capabilities acquired, have been the ASW-optimised Type 26 Global Combat Ship; the new Astute-class submarines will replace the Trafalgar-class submarines, and the U.K. will acquire nine P-8 Poseidon MPAs. The UK has also been increasing exercising and presence in the High North in recent years – for example, it was the second largest contributor to 2020 Cold Response exercise (behind only Norway), it participated in an Air Policing mission in Iceland for the first time in over a decade and has engaged in recent freedom of navigation operations alongside the United States (May 2020), and

⁶ The Second Fleet was deactivated in 2011 to preserve funding for new ship acquisition across the US Navy; its assets were then folded under the broader umbrella of the Fleet Forces Command.

⁷ Notable assets include 26 submarines (6 SSBN and 20 SSGN), 4 aircraft carriers (CVN), 18 destroyers (11 DDGHM and 7 DDGM), 2 amphibious assault ships (LHD), 3 amphibious transport docks (LPD), and 5 dock landing ships (LSD) (Lewis, 2018).

with a Danish aircraft, and a Norwegian frigate and US destroyer in the Barents Sea (September 2020) (Chuter, 2020).

65. With its powerful maritime and naval air capabilities, France deploys its armed forces in the area on a regular basis, particularly during joint exercises in the High North. It deployed 2,700 troops during TRJE18. The French Air Force also regularly participates in the Arctic Challenge exercise organised every two years by Finland, Norway, and Sweden. The Air Force is also present for air policing missions in Iceland and Finland. The *Rhône*, an offshore support and assistance ship, was the first non-Russian military vessel to sail through the Northern Sea Route autonomously in September 2018, enabling the French Navy to increase its knowledge of the Arctic environment as well as cooperation with the navies of countries in the area (Canada, Denmark, United States, Norway).

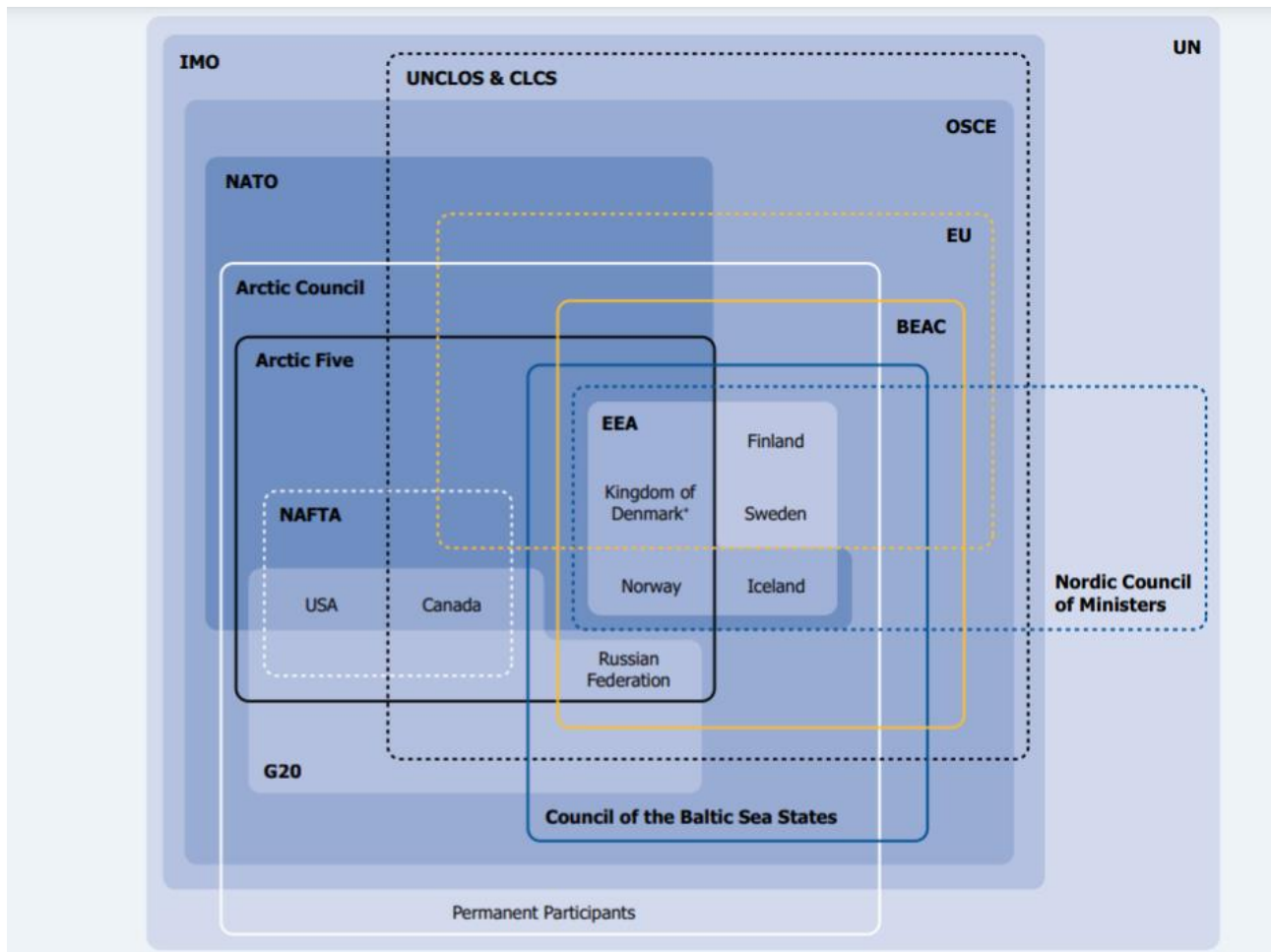
4. Other Allies

66. Allies have expressed, for a long time or more recently, an interest in the High North. "What happens in the Arctic now does not stay in the Arctic, the area being an amplifier of what happens elsewhere" as noted in early 2020 by Icelandic Ambassador Einar Gunnarsson, chair of the Arctic Council's Committee of Senior Officials (Berny, 2020). Poland is engaged in the Arctic, especially since it was granted observer status at the Arctic Council's founding in 1996. It deploys its scientific expertise in several working groups and task forces. Poland has not yet published an Arctic strategy, but one is reportedly in preparation according to the Polish representative to the Arctic Council (Taithe, Niquet, Strouk, 2020). In October 2013, the German Foreign Office presented "Guidelines for a German Arctic Policy: Taking responsibility, taking advantage of opportunities," in which it recognised the geopolitical, geo-economic, and geo-ecological importance of the region. Italy published the first document related to its Arctic Strategy in 2015, and three years later, the Foreign Affairs Committee of the Italian Chamber of Deputies published the Final Parliamentary Report on the Italian Arctic Strategy (Italy, 2021). On 14 November 2019, Estonia announced its application for observer state status in the Arctic Council; the Council is expected to decide in May 2021. The first Baltic country to express such a request, Estonia bases its application around three pillars: science, economy and security. "As the northernmost non-Arctic country and due to its location, Estonia is directly affected by the growing geopolitical issues in the Arctic, and that is why we need to be included in the discussions and problem solving," noted Foreign Minister Urmas Reinsalu (Observatoire de l'arctique, 2020). Such an argument around geopolitical issues is potentially groundbreaking for a bid for observer state status, as the Arctic Council is not intended to deal with issues other than the environment and regional cooperation. In joining the Arctic Council, Estonia would move closer to a certain group of NATO member countries, while expressing concern about the rise of Russia. The diversity of Allies with various forms of interest in this region today echoes Russia's vertical axis strategy, stretching from the Far North through the Baltic Sea to the Black Sea.

VI. EXISTING WAYS AND MEANS FOR COOPERATION: THE ESSENTIAL ROLE OF THE ARCTIC COUNCIL

67. As noted above, the Arctic Council's founding in 1996 served as an anchor for the post-Cold War effort to maintain the Arctic as a zone of 'peaceful cooperation'. The exclusion of military security from the Council's mandate is a distinctive feature, which has allowed for continued cooperation despite political tension between members (Charron, 2020). For example, Russia's aggressive foreign policy and use of force in Ukraine in 2014 did not prove to be an obstacle to the establishment of the Arctic Coast Guard Forum in 2015 (Exner-Pirot et al., 2019). The Council's chairmanship rotates every two years; Iceland will cede the chair to Russia in May 2021.

68. The anchoring role of the Arctic Council is reflected in the following diagram.



Source : Arctic Policies and Strategies — Analysis, Synthesis, and Trends Lassi Heininen, Karen Everett, Barbora Padrtova, Anni Reissell, February 2020

69. Arctic nations are strongly committed to the Council, which is reflected in each of their national Arctic strategies and their commitment to three key agreements; covering search and rescue, marine pollution preparedness, and scientific cooperation (Ulmer, 2019).⁸ While the Arctic Council has been praised as a model for regional governance, experts agree that the Arctic Council could be a victim of its own success, as there is a reluctance to reform from fear of disrupting the functioning structure (Bergquist, 2018). Growing economic prospects in the region have led experts to call for Council's priorities to shift to sustainable development (Smieszek and Koivurova, 2017). The Council has attempted to address some of these issues by establishing a permanent Secretariat in 2013 to provide a single administrative base easing the transition between chairmanships and creating the Arctic Economic Forum in 2014 (Murray, 2014; Molenaar, 2016).⁹

⁸ These agreements provide cooperation incentives, but do not provide legal obligations beyond existing international regulations and have no resource implications (Arctic Council SAO, 2015).

⁹ According to its critics, the Council's organisational structure is a hurdle to effective policy implementation and consistency of focus: it operates as a consensus-based organisation due to its lack of 'legal personality', depends on unreliable voluntary funding from member states and is subject to rapid leadership turnover due to the two-year cycle of chairmanship (Exner-Pirot et al., 2019). For example, while successive chairmanships have resulted in a wealth of projects, lack of funding and

70. Climate change has proven a divisive issue for member states whose inability to agree on the language has led to recent breakdowns in strategic planning and ministerial consensus. The establishment of a Strategic Plan, initially to be completed by 2019, was delayed and is to be reviewed in 2021. 2019 also marks the first time in the Council's history that ministers were unable to reach consensus on a Ministerial Declaration (Ulmer, 2019).

71. Shortcomings aside, the Arctic Council helps build a community among the actors in the region.

72. Just prior to Russia's illegal annexation of Crimea in 2014, the Arctic states reached their pinnacle of cooperative collective action on a range of issues. For example, in 2010, Russia and Norway settled a long-standing maritime boundary dispute; in 2011 all Arctic states came to an agreement on SAR cooperation, and, in the same year established the annual Arctic Security Forces Roundtable; in 2012, Arctic states established the Arctic Chiefs of Defence Conference; and, in 2013 reached an agreement on marine oil disaster response (NATO PA, 2015).

73. The Presidency of the Council rotates every two years. Iceland will hand over the presidency to Russia in May 2021. Russia's increased militarisation of the region in recent years has raised some concerns about Moscow's intentions for the presidency. However, the head of the Russian delegation to the Council, Nikolay Korshunov, was keen to reassure other member countries that Russia would not include military security issues on the agenda of Council meetings (Danilov, 2021). Korshunov's message of reassurance is part of the ongoing debate in Russia about the Arctic, which some see as an autonomous region to be protected from geopolitical competition, while others see it as just another region in the new global chessboard.

74. Despite the growing strategic competition between Russia and NATO Allies, the High North remains an area where it is important to maintain mutually beneficial cooperative efforts: This was a key takeaway of the last two Defence and Security Committee visits to Norway in recent years. For example, Norwegian defense officials are quick to note they maintain positive day-to-day cooperation with their Russian counterparts in areas such as SAR along their shared maritime border in the Barents Sea, as well as along their long border. As officials noted at the time: this level of practical cooperation has fostered a degree of mutual trust and maintained relative regional stability; built over years of coordinated activities at sea and on land both during and after the Cold War (NATO PA, 2017). Maintaining mutually beneficial cooperation between Russia and its Arctic European neighbours is increasingly important as the region continues to see increased economic, social and military activity largely as a result of external interests in the new Arctic.

VII. CONCLUSIONS FOR NATO PARLIAMENTARIANS

75. NATO has long played a significant role in the Arctic. Allies have always maintained a presence and sought as clear a picture as possible of developments in the High North, lest they be exposed to potential vulnerabilities to which the Alliance's northern flank presented them. These were principally the avenue the Arctic Ocean offered to Soviet subs seeking to shoot the GIUK

political attention has resulted in relatively limited follow-through on many (Ulmer, 2019). In addition to this, the work of the Council is carried out by six working groups, which operate with no formal reporting structure and focus almost entirely on environmental protection, with only one explicitly dealing with sustainable development (Exner-Pirot et al., 2019; Stephan, 2018). Four of the working groups were in fact absorbed from the Arctic Environmental Protection Strategy, an agreement that preceded the Arctic Council, and therefore reflect post-Soviet Union environmental challenges, particularly nuclear waste and other pollutants in the Barents region (Ulmer, 2019).

Gap and disrupt Allies' transatlantic lanes of communication, or for the overflight path the North Pole provided for Soviet ICBMs.

76. The area that served as a key arena for Cold War Superpower strategic competition, however, has changed. Accelerated climate change is impacting the Arctic faster than any other region in the world. Allies are now very much faced with a 21st Century Arctic that is different in climate, geography, as well as geopolitical realities.

77. After a long period of relative strategic isolation, the Arctic is slowly finding its way back to the center of some strategic discussions. This is driven by two key factors: The first is the spill over of the strategic competition between NATO Allies and Russia into the region. The second is the growing efforts by non-Arctic states, including China, to not be left out of the potential future benefits of the 21st-century Arctic.

78. These new variables are changing the Alliance's calculus when considering the region. A key strategic concern for Allies is the maintenance of freedom of navigation in an increasingly busy Arctic. The ability to defend Allied interests in the region is also essential.

79. NATO Parliamentarians can have a role in advocating for several critical next steps for the High North. In recent years, the Assembly has made several important recommendations for additional Allied action with regard to High North challenges. They were consolidated into the Assembly's 2020 Resolution, [*A More United and Stronger Alliance on the Global Stage*](#), in which it urged the governments and parliaments of the North Atlantic Alliance to: "bolster NATO's situational awareness in the Arctic region, including through greater information sharing, the creation of a working group on the Arctic, and training and exercises, and to maintain a good dialogue with Allies about search and rescue capabilities in the region" (NATO PA, 2020(b)).

80. The independent group of experts appointed as part of the forward-looking process on NATO's future (#NATO2030) addressed the region in their 2020 report, outlining strategic policy recommendations for managing Allied interests in the region over the next decade. First, it couches the reference to the High North far from the sections on the growing complex challenges posed to the Alliance by Russia and China, and, instead, notes it as a burgeoning climate change-related issue. Second, it advocates situational awareness as a first step, rather than a rush to ill-informed increased presence. It also notes the legitimacy of Arctic Allies' concerns about too large a role for NATO in the High North. As such, this underscores a kind of new, better-informed status quo with Arctic Allies in the lead, but leaves the door open for a continual reassessment of strategic developments in the region.

81. This preliminary draft report underscores the necessity of the following through on these proposals by more specifically advocating for the following:

- **Continued and increased Allied investment in the modern ISR assets necessary for the clearest picture possible of the region.** To get this level of understanding of regional developments, the Alliance needs a defence surveillance system weaving together space, air and land-based surveillance in real time. In light of a rapidly evolving Arctic, due to an increased number of actors seeking access, but also in terms of climate and geography, this is the most important first step for Allies.

Allies have picked up the pace of their ISR related investments in the region in recent years, but much remains to be done. This is made clear by recent remarks by US Coast Guard Commandant Paul Zukunft during the 2020 Defense News Conference from 9-10 September, who noted that a US national security cutter sent on a recent patrol of an ice-free region of the Arctic, "stumbled upon a joint exercise between Russia and China." In a bleak assessment of Allied Arctic ISR capabilities, Zukunft said, "things start to get pretty dark once you get higher than 72 degrees north." (Larter, 2020)

- **Sufficient capabilities for Allies to project power effectively into the High North in defence of Allies and Allied interests, when and if necessary** - this includes economic interests in place, but also in transit, as access to the Arctic grows to allow for increased transarctic commercial shipping. To be able to do this, Allies must continue to increase investments in High North-related equipment and the training necessary to make their soldiers expert cold weather warriors in the adverse climate of the High North.
- **The ability to maintain a capable presence in the High North. Allied presence must be flexible enough to be calibrated to the ebb and flow of the security dynamics facing Allies in the High North.** An increasingly congested and rapidly evolving climate and, as a result, changing geography in the 21st Century Arctic necessitate this level of smart, calibrated, and flexible presence. Such a presence must be led by NATO's Arctic Allies given their vital interests in the region and unique understanding of how to shepherd its future.

82. A principal challenge facing Allies is sufficient data acquisition; the ability to rely on a variety of systems; and networking and pooling of resources among Allies, but also with their partners, in particular Finland and Sweden. As such, the space domain is a promising area of effort that should be developed. Because of new activities and the rapid evolution of the region due to global warming, polar satellite systems or space programmes are bound to become essential tools in the following areas: telecommunications; maritime safety and navigation aids (vessel identification and tracking, topography, high sea manoeuvre coordination sea and land ice drift prediction); environmental monitoring (detection and monitoring of ice evolution, pollution detection...); and, the sustainable management of marine resources. Russia launched its first Arctic monitoring satellite this past February.

83. Finally, while not a principal focus of this report, it is increasingly clear the long-term effects of accelerated climate change will undoubtedly have adverse security effects for all Allies. These may come in many forms, from rising seas and changing coast lines, to climate-related disasters at home, and more. The rapid temperature rises in the Arctic, which is happening at a rate three times the global mean, have the ability to disrupt the region's biology and geology permanently. The disruption of Arctic Ocean currents, as a result of these changes, can have a seriously detrimental knock-on effect of disrupting climate stability across the globe. Attention to these issues should focus the minds of all Parliamentarians across the Alliance, as what we may witness changing in the Arctic today, could be the harbinger of changes to come far beyond the region over the horizon.

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