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Threats IN, TO, and THROUGH the East of Greenland.

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The Greenland-Iceland-United Kingdom (GIUK) Gap marks the strategic transit route for maritime and aerospace forces from the Greenland Sea, and Norwegian Seas to break into the North Atlantic and threaten the sea lines of communication (SLOCs) between North America and Europe. While the geographic constraints imposed by the islands of Greenland, Iceland, the Faroe Islands, and Scotland tend to favour the defence of the North Atlantic, "it is not a one-way street: forces heading north from the Atlantic must also funnel through these waters."[1] Across the Norwegian Sea lies the *Bear Gap*, running from Svalbard to the North Cape of Norway. If the GIUK Gap marks the entrance to the North Atlantic, then the Bear Gap marks the strategic transit route of ships and aircraft breaking into the marginal seas of the Russian Arctic, the Bastion for its strategic

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[1] "The GIUK Gap's strategic significance," *International Institute for Strategic Studies* at https://www.iiss.org/publications/strategic-comments/2019/the-giuk-gaps-strategic-significance.

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forces.[2] This conduit between the GIUK and Bear Gaps is often referred to as the "Northern Flank" by NATO, the High North by Nordic states, or the Bastion Defence from a Russian perspective. A Bastion is a naval strategy that calls for heavily defending an area of water to keep unfriendly naval and air forces at arm's length or at least controlled and contained.[3] The control or denial of these waters and airspaces is becoming an increasingly essential element of strategic competition.[4]

This contested space is of growing importance for two reasons. First, the Russian army has performed poorly in Ukraine, lessening its credibility to threaten Europe in the short run.[5] Second, Russia has continued to heavily invest in its strategic, naval, and air forces in and around its Bastion, often at the expense of its conventional military elsewhere.[6] This includes building new weapon systems with long-range strike capabilities that push the anti-access/area denial (A2/AD) that is traditionally associated with the Bastion concept out to the point of being able to strike directly at North America below the nuclear threshold.[7] This has arguably accelerated the shifting of the centre of

[2] Anna Knack, James Black, Ruth Harris, "Standing Together on NATO's North Flank: UK-Norwegian Defence Cooperation," *The RAND Blog*, 9 December 2020 at https://www.rand.org/blog/2020/12/standing-together-on-natos-north-flank-uk-norwegian.html and Ernie Regehr, "Combat "Spillover" – into and out of the Arctic," *Simons Foundation ARCTIC SECURITY BRIEFING PAPERS*, 10 March 2021 at https://www.thesimonsfoundation.ca/sites/default/files/Combat%20Spillover%20%E2%80%93%20into%20and%20out%20of%20the%20Arctic%20-%20Arctic%20Security%20Briefing%20Paper%2C%20March%2010%202021_0.pdf.

[3] Bastions are based around the defence-in-depth concept and utilize the geography of the water and sensor systems to monitor it, reinforced by the heavy patrolling of air, surface, and subsurface forces. Kristian Atlaand, "The Introduction, Adoption and Implementation of Russia's "Northern Strategic Bastion" Concept, 1992–1999," *Journal of Slavic Military Studies* 20, no. 4 (2007): pp. 499.

[4] James Black, Stephen Flanagan, Gene Germanovich, Ruth Harris, David Ochmanek, Marina Favaro, Katerina Galai, Emily Ryen Gloinson, "Enhancing deterrence and defence on NATO's northern flank: Allied perspectives on strategic options for Norway," *RAND Europe* (2020) at https://www.regjeringen.no/contentassets/b6f5ea0d2d6248b4ae4131c554365e93/rand-rr-4381-enhancing-deterrence-and-defence-on-natos-northern-flank.pdf.

[5] Robert Dalsjö, Michael Jonsson, and Johan Norberg, "A brutal examination: Russian military capability in light of the Ukraine War," *Survival* 64, no. 3 (2022): pp. 7-28 and *Focus 2023,* Norwegian Intelligence Service (2023), 8. The Norwegian Intelligence Service (NIS) projects that the Russian army will become much larger but less technologically advanced in the coming years.

[6] Maren Garberg Bredesen and Karsten Friis, "Missiles, Vessels and Active Defence," *RUSI Journal* 165, no. 5/6 (2020): pp. 68-78.

[7] James Lacey, "Battle of the Bastions," *War on the Rocks*, 9 January 2020 at https://warontherocks.com/2020/01/battle-of-the-Bastions/; Bredesen and Friis, "Missiles, Vessels and Active

deterrence north from the plains of central Europe to the waters between the Gaps and the shores of Norway.[8]

Russian control or denial of the waters and airspace between the Gaps represents a nexus of Canadian defence concerns. The two general threats are to the SLOC with our European allies and long-range fire into Canada. This second developing capability compresses Canadian conceptions of national, continental, and international security, as traditionally outlined in defence White Papers. These Gaps physically separate Europe (Norway) and North America (Greenland) but conceptually connect NORAD modernization efforts with Canadian contributions to NATO and how those two alliances can better fit together for the protection of both the country and its allies. Identifying the threats in, to, or passing through these Gaps east of Greenland is a step towards maximizing Canadian efforts to contribute to the deterrence of and defence against threats to the Arctic, North America, NATO, and global stability, as outlined in *Our North, Strong and Free*.[9]

Defence"; and Keir Giles and Mathieu Boulegue, "Russia's A2/AD Capabilities: Real and Imagined," *The US Army War College Quarterly: Parameters* 49, no. 1 (2019): pp. 21-36. For more on the argument of holding North America hostage, see General Terrence J. O'Shaughnessy & Brigadier General Peter Fesler, "Hardening the Shield: A Credible Deterrent & Capable Defense for North America," *Wilson Center – The Canada Institute* (September 2020) at https://www.wilsoncenter.org/sites/default/files/media/uploads/documents/Hardening%20the%20Shield_A%20Credible%20Deterrent%20%26%20Capable%20Defense%20for%20North%20America_EN.pdf.

[8] See Rebecca Pincus, "Towards a New Arctic: Changing Strategic Geography in the GIUK Gap," *RUSI Journal* 165, no. 3 (2020): pp. 50-8 and Colin Wall and Njord Wegge, "The Russian Arctic Threat: Consequences of the Ukraine War," *CSIS Briefs* (January 2023).

[9] Department of National Defence, "Our North, Strong and Free: A Renewed Vision for Canada's Defence" (2024) at https://www.canada.ca/content/dam/dnd-mdn/documents/corporate/reports-publications/2024/north-strong-free-2024-v2.pdf.

Figure 1: GIUK and Bear Gaps in relation to the Russian Arctic Bastion and Atlantic SLOC

Source: Adapted from Harri Mikkola, "The Geostrategic Arctic: Hard Security in the High North," *FIIA Briefing Paper* 259 (November 2019): p. 5.

The strategic importance of both the GIUK and Bear Gaps was demonstrated during the Second World War. With the fall of Norway, Britain moved to occupy Iceland to better contain the German surface fleet from raiding the SLOC of the North Atlantic.[10] Similarly, the German invasion of the Soviet Union resulted in that country unsuccessfully pressuring Britain to liberate Norway and arm the Soviet citizens residing in Svalbard to close the Bear Gap.[11] The Battle of the Atlantic showed the costs that a

[10] For Canadian involvement, see Donald F. Bittner, "Canadian Militia Mobilization and Deployment for War: The Iceland Experience of 1940," *Armed Forces & Society* 18, no. 3 (1992): pp. 343-61. An example of this was the Battle of the Denmark Strait and the eventual sinking of the German battleship *Bismarck*.

[11] See Ryan Dean and P. Whitney Lackenbauer, "Conceiving and Executing Operation GAUNTLET: The Canadian-Led Raid on Spitzbergen, 1941," *Canadian Military History* 26:2 (December 2017) and "'A Particularly Spectacular Piece of Demolition': The Canadian-Led Raid on Spitzbergen, 1941," in P. Whitney Lackenbauer and Adam Lajeunesse (eds) *Arctic Operations, 1945-2015: Historical and Contemporary Lessons Learned* (Fredericton, NB: The Gregg Centre for the Study of War & Society, 2017), pp. 1-46.

threat primarily limited to U-boats could impose upon the SLOC.[12] The struggle of Allied Arctic convoys through the Bear Gap was an early demonstration of the costs that a broader A2/AD strategy could impose along this strategic waterway.[13] The Gaps east of Greenland would only increase in importance during the Cold War.

As naval scholar Rebecca Pincus notes, "advances in submarine and missile technology shifted strategic considerations in the GIUK region."[14] The traditional concern of surface raiders and submarines passing through the GIUK Gap to threaten the Atlantic SLOC was complicated by the development of Soviet ballistic missile submarines (SSBNs) that could directly attack North America. The creation of guided missile submarines, the growth of the Soviet Navy, and the development of the Soviets' long-range aviation armed with increasingly sophisticated cruise missiles further underscored the importance and vulnerability of the GIUK Gap.

The strategic importance of the Bear Gap also grew during the Cold War with the increasing capabilities of Soviet SSBNs.[15] As the ballistic missile ranges of those submarines increased, the Soviet Navy increasingly kept its SSBNs closer to its ports along the Kola Peninsula.[16] Making these submarines ice-capable also opened up the Arctic Ocean to their operations, providing a larger area in which to hide and from which they could potentially fire their missiles.[17] Ensconced within this Bastion, American naval planners chose to pursue these SSBNs with an aggressive Maritime Strategy during the

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[12] Samuel Eliot Morison, *The Battle of the Atlantic, September 1939-May 1943*, Vol. 1. (Chicago: University of Illinois Press, 2001) and Marc Milner, *North Atlantic Run: The Royal Canadian Navy and the Battle for the Convoys* (Toronto: University of Toronto Press, 1985).

[13] Richard Woodman, *Arctic Convoys, 1941–1945* (Yorkshire: Pen and Sword, 2018).

[14] Pincus, "Towards a New Arctic," pp. 52.

[15] See, for example, Clive Archer (ed) *The Soviet Union and Northern Waters* (London: Routledge, 1988), particularly the chapters by Tomas Ries, "Soviet Military Strategy and Northern Waters," pp. 90-133 and Robert van Tol, "A Naval Force Comparison in Northern and Atlantic Waters," pp. 134-63.

[16] The Kola Peninsula was one of the largest basing areas in the world at that time, home to the Soviet Union's premier strategic forces. The geography of the Kola made it ideal for threatening both Europe and North America. Suzanne M. Holroyd, "U.S. and Canadian Cooperative Approaches to Arctic Security," *A RAND Note* (June 1990): pp. iv-v, 6-10; Ronald G. Purver, "Arms Control Options in the Arctic," *Issue Brief No. 7* (May 1987): pp. 5.

[17] See, for example, Willy Østreng, "The strategic balance and the Arctic Ocean: Soviet options," *Cooperation and Conflict* 12, no. 1 (1977): pp. 41-62; Ries, "Soviet Military Strategy and Northern Waters"; and Lawson W. Brigham, *The Soviet Maritime Arctic* (Annapolis: Naval Institute Press, 1991).

1980s. In the event of war, the United States Navy (USN) would charge through the Bear Gap, with its surface fleet attacking the Kola directly, while its attack submarines (SSNs) would hunt Soviet SSBNs in the Arctic Ocean and its marginal seas. Not only would this give the USN a real counterforce capability in the Arctic Ocean, but it would also pose a dilemma for the Soviet Navy: it could use its own SSNs to try to protect its deterrent or sacrifice those SSBNs and attack the SLOC.[18]

While Canada's role in this Maritime Strategy would have been limited, it has a history of defence involvement in the GIUK and Bear Gaps stretching back to the early phases of the Second World War. This included provoking the American occupation of Greenland in response to the German conquest of Denmark and the desire for cryolite used in the production of aluminum.[19] Canada was also involved in the occupation of Iceland in response to Germany's occupation of Norway – effectively plugging the GIUK Gap.[20] Canada would go on to view Greenland as a strategic base during the Cold War,[21] due to the eastern extension of the Distant Early Warning (DEW) Line and resupply of Canadian Forces Station (CFS) Alert out of Thule, thus contributing to continental defence and aiding the American nuclear deterrent.[22] During the Second World War, the Royal Canadian Navy (RCN) escorted the Atlantic convoys threatened by surface raiders and U-boats passing through the GIUK Gap, fighting the Battle of the Atlantic from start to victory.[23] Canada renewed this commitment against Soviet maritime and air forces threatening to break through and threaten the SLOC during the Cold War.[24]

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[18] John B. Hattendorf, *The Evolution of the US Navy's Maritime Strategy, 1977-1986* (Newport, RI: Naval War College, 2003).

[19] Dawn Alexandrea Berry, "Cryolite, the Canadian aluminum industry and the American occupation of Greenland during the Second World War," *The Polar Journal* 2, no. 2 (2012): pp. 219-235.

[20] Bittner, "Canadian Militia Mobilization and Deployment for War," pp. 343-361.

[21] Nancy Fogelson, "Greenland: Strategic Base on a Northern Defense Line," *The Journal of Military History* 53, no. 1 (1989): pp. 51.

[22] See Daniel Heidt and Richard Goette, "This is no 'Milk Run'": Operation Boxtop, 1956-2015," *in Canadian Armed Forces Arctic Operations, 1941-2015: Lessons Learned, Lost, and Relearned*, (eds) Adam Lajeunesse and P. Whitney Lackenbauer (Fredericton, NB: Gregg Centre, 2017), pp. 270-306.

[23] Milner, *North Atlantic Run*.

[24] Nicholas Tract, *Two-Edged Sword: The Navy as an Instrument of Canadian Foreign Policy* (Montreal & Kingston: McGill-Queen's Press-MQUP, 2012).

In the summer of 1941, Soviet pressure to occupy Svalbard to contest the nascent Bear Gap against Germany resulted in Canada evacuating the Norwegian and Russian inhabitants of that archipelago to prevent a humanitarian disaster from unfolding and halting the flow of coal to German-occupied Norway.[25] Canadians would also serve in the Arctic convoys running through the Bear Gap, encountering Germany's A2/AD strategy along the way.[26] Canadian staff would regularly, throughout the war, plan and update Churchill's proposed Operation *JUPITER* to invade Norway.[27] During the later Cold War, the Canadian Army was tasked in the 1960s with deploying the Canadian Air-Sea Transportable Brigade Group (CAST) to protect Norway in the event of a Soviet attack, an additional contribution to NATO beyond its base in Lahr, Germany.[28]

The end of the Cold War and the collapse of the Soviet Union shifted much of the popular attention on the Arctic regions east of Greenland to the radioactive legacy of the Northern Fleet. Concern was placed on cleaning up the rusting hulks of Soviet nuclear-powered and armed submarines and accounting for their radioactive materials,[29] as well as attempting to pull the fledgling Russian Federation into the liberal democratic world.[30] Despite this shift in focus, the military concern for the waters and airspace east of Greenland never completely disappeared during this period.[31] Regardless of the

[25] Dean and Lackenbauer, "Conceiving and Executing Operation GAUNTLET."
[26] See Michael G. Walling, *Forgotten Sacrifice: The Arctic Convoys of World War II* (Oxford: Bloomsbury Publishing, 2012).
[27] See John Nelson Rickard, *The Politics of Command: Lieutenant-General AGL McNaughton and the Canadian Army, 1939-1943* (Toronto: University of Toronto Press, 2010).
[28] See Sean Maloney, "Purple Haze: Joint Planning in the Canadian Forces from Mobile Command to J-Staff, 1975-1991," *The Army Doctrine and Training Bulletin* 5, no. 4 (Winter 2002–2003): pp. 57-72.
[29] For concise histories of these efforts, see James Clay Moltz and Tamara C. Robinson, "Dismantling Russia's Nuclear Subs: New Challenges to Non-Proliferation," *Arms Control Today* at https://www.armscontrol.org/act/1999-07/dismantling-russias-nuclear-subs and Cristina Chuen, "Submarine Dismantlement Assistance," *Nuclear Threat Initiative*, 31 March 2004, at https://www.nti.org/analysis/articles/submarine-dismantlement-assistance/.
[30] Thomas S. Axworthy and Ryan Dean, "Changing the Arctic Paradigm from Cold War to Cooperation: How Canada's Indigenous Leaders Shaped the Arctic Council," *The Yearbook of Polar Law* 5 (2013): pp. 7-43.
[31] Rob Huebert, "Canadian Arctic security issues: Transformation in the post-Cold War era," *International Journal* 54, no. 2 (1999): pp. 203-229.

intentions or capabilities of the various powers along it, geography continued to make the east of Greenland an area of strategic concern.[32]

This concern came to the fore with the return of great power competition, clearly demonstrated by Russia renewing its brutal and unprovoked invasion of Ukraine in February 2022. This renewed strategic attention is reflected in the academic literature, with recent articles examining the importance of the GIUK Gap,[33] NATO's Northern Flank,[34] and the Russian Arctic Bastion.[35] Russia's previous national security strategy[36] clearly messaged its displeasure with the existing international system, while its Arctic policy (recently amended on 21 February 2023) emphasizes its national interest in the Arctic, including the protection of the Arctic Zone of the Russian Federation (AZRF) and the ability to project power out from it.[37] The policies of the United States have reflected a renewed commitment to Atlanticism[38] and an effort to reintroduce its security presence into the European Arctic.[39] NATO statements amplify this.[40]

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[32] See, for example, Caitlyn L. Antrim, "The next geographical pivot: The Russian Arctic in the twenty-first century," *Naval War College Review* 63, no. 3 (2010): pp. 4-38 and "The New Maritime Arctic," *Russia in Global Affairs* 8, no. 3 (2010): pp. 87-100.

[33] Pincus, "Towards a New Arctic"; Magnus Nordenman, "Back to the Gap: The Re-emerging Maritime Contest in the North Atlantic," *The RUSI Journal* 162, no. 1 (2017): pp. 24-30; and Gareth Jennings, "NATO Looks to Poseidon to plug GIUK Gap Against Russian Submarines," *IHS Jane's Defence Weekly* 11 (2016).

[34] Black, Flanagan, Germanovich, Harris, Ochmanek, Favaro, Galai, Gloinson, "Enhancing deterrence and defence on NATO's northern flank," and Knack, Black, Harris, "Standing Together on NATO's North Flank."

[35] Michael Paul and Göran Swistek, "Russia in the Arctic: development plans, military potential, and conflict prevention," *SWP Research Paper*, 3 (2022); Lacey, "Battle of the Bastions"; Bredesen and Friis, "Missiles, Vessels and Active Defence"; Giles and Boulegue, "Russia's A2/AD Capabilities: Real and Imagined"; Wall and Wegge, "The Russian Arctic Threat"; and Harri Mikkola, "The Geostrategic Arctic: Hard Security in the High North," *FIIA Briefing Paper* 259 (November 2019).

[36] "Strategiya natsionalnoi bezopasnosti Rossiiskoi Federatsii," The Russian Security Council, 2 July 2021, at http://scrf.gov.ru/security/docs/document133/.

[37] "Plan razvitiya infrastruktury Severnogo morskogo puti na period do 2035 goda," The Russian Government, 21 December 2019, at http://government.ru/docs/38714/.

[38] "National Security Strategy," *The White House* (October 2022) at https://www.whitehouse.gov/wp-content/uploads/2022/10/Biden-Harris-Administrations-National-Security-Strategy-10.2022.pdf.

[39] "National Security Strategy for the Arctic Region," *The White House* (October 2022) at https://www.whitehouse.gov/wp-content/uploads/2022/10/National-Strategy-for-the-Arctic-Region.pdf.

[40] See, for example, NATO Secretary General Jens Stoltenberg, "NATO is stepping up in the High North to keep our people safe," *NATO Speeches and Transcripts*, 25 August 2022, at https://www.nato.int/cps/en/natohq/opinions_206894.htm.

Both Russia and the United States have altered their military commands to better project force into this contested region. This includes the 2018 reactivation of the USN's 2nd Fleet, tasked to defend the SLOC of the North Atlantic and Arctic Oceans, and the establishment of Joint Force Command Norfolk.[41] In 2014, Russia established its Arctic Joint Strategic Command, and in early 2021, the Northern Fleet based in the Kola was given the status of being one of the main military-administrative entities. Both military formations lie within Russia's Arctic Bastion.[42]

Similarly, the increasing frequency and the scale of exercises conducted by both NATO and Russia in the waters and airspace east of Greenland demonstrate the strategic value of those waters and that airspace, the complexity of A2/AD measures there, and the efforts to overcome these measures. Exercise *Trident Juncture* was held in October 2018, comprising 65 ships, 250 aircraft, 10,000 vehicles, and 50,000 personnel from across NATO, prompting Secretary General Jens Stoltenberg to declare that "Trident Juncture is NATO's biggest exercise since the end of the Cold War."[43] NATO used the exercise to test its tactics, interoperability, and the logistics of getting soldiers, sailors, and air crew together, through the Bastion defence, and into the mountains and valleys of northern Norway.[44] In August 2019, Russia staged its own exercise there, dubbed *Ocean Shield*. This saw the deployment of 49 warships, 20 supply ships, and 58 aircraft (totalling about 10,000 personnel). The purpose was to test its sea-denial capabilities to prevent NATO from entering the Bear Gap and passing into the Bastion. The following month, Russia held its largest submarine exercise since the Cold War, sending 8–10 attack submarines

[41] Ryan Brown, "US Navy re-establishes Second Fleet amid Russia tensions," *CNN*, 4 May 2018 at https://www.cnn.com/2018/05/04/politics/us-navy-second-fleet-russia-tensions/index.html and "Changes in the Arctic: Background and Issues for Congress," *Congressional Research Service* (24 March 2022), pp. 34. See "Mission Statement," *Commander, 2nd Fleet* at https://www.c2f.usff.navy.mil/About-Us/Mission/. See also Jim Garamone, "DOD Establishes Arctic Strategy and Global Resilience Office," *DOD News*, 27 September 2022, at https://www.defense.gov/News/News-Stories/Article/Article/3171173/dod-establishes-arctic-strategy-and-global-resilience-office/.

[42] For more, see Jonas Kjellén, "The Russian Northern Fleet and the (Re)militarisation of the Arctic," *Arctic Review on Law and Politics* 13 (2022): pp. 34-52.

[43] Rikard Jozwiak, "NATO Launches 'Biggest Military Exercise Since The End Of The Cold War'," *Radio Free Europe*, 25 October 2018, at https://www.rferl.org/a/nato-set-to-start-biggest-military-exercise-since-the-end-of-the-cold-war-/29561371.html.

[44] Matthew Fisher, "Trident Juncture 18: NATO's Norwegian Exercise," *CGAI*, November 2018 at https://www.cgai.ca/trident_juncture_18_natos_norwegian_exercise.

into the Norwegian Sea, two of which went on to sail through the GIUK Gap into the Atlantic.[45] These rehearsals of Cold War strategies were updated with 21st-century tactics and technologies and scaled to the political realities of a larger NATO and a weaker authoritarian Russia in place of the Soviet Union.

Canada contributed a sizeable force to *Trident Juncture*, despite having stood up a battle group in Latvia in June 2017 as part of Operation *ASSURANCE*.[46] This included two frigates (HMCS *Halifax* and *Ville de Québec*) and two Maritime Coastal Defence Vessels (HMCS *Summerside* and *Glace Bay*), 1,000 personnel from 5 Canadian Mechanized Brigade Group consisting of a light infantry battalion (3rd Battalion, the Royal 22nd Regiment) and a brigade headquarters, eight fighter aircraft (CF-188 *Hornets*), two maritime patrol aircraft (CP-140 *Auroras*), and one airborne refuelling aircraft (a CC-150 Multi-Role Tanker Transport *Polaris*). With 2,000 troops forward deployed, it has been by far the biggest, most complex military operation for the Canadian Forces since Afghanistan. It was supported by roughly 170 sea containers and 80 vehicles brought over by ship, many flights by CC-177 *Globemaster III* cargo aircraft, and 10 chartered commercial flights to move personnel. At a cost of $28 million, Canada had sent the fourth-largest national contingent to Norway.[47]

Brigadier-General Dave Anderson explained why contributing this large Canadian force mattered. "What we have here from Canada is a likely first response to an Article 5 situation … against a near-peer enemy," he explained, with Canadians proving in Norway that "we have retained the ability to project power at the speed of relevance." He elaborated that "there are multiple audiences here, but the most important one is NATO itself," suggesting that the primary message was demonstrating Canadian military credibility to allies rather than deterrence to Russia.[48]

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[45] Bredesen and Friis, "Missiles, Vessels and Active Defence," pp. 68.

[46] For more on Canada's persistent mission to Europe, see GoC, "Operation REASSURANCE," *DND* at https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/operation-reassurance.html.

[47] GoC, "Canadian troops participating in NATO's largest exercise in recent years," *DND News Release*, 25 October 2018 at https://www.canada.ca/en/department-national-defence/news/2018/10/canadian-troops-participating-in-natos-largest-exercise-in-recent-years.html and Fisher, "Trident Juncture 18."

[48] Quoted in Fisher, "Trident Juncture 18."

Since 2018's *Trident Juncture*, commentators have suggested that several developments undermine the perception of Canada as a credible military ally. The chronic issue of Canada struggling to recapitalize its military continues, with key allies becoming increasingly frustrated with Canada's backsliding on the NATO members' 2006 political commitment to increase their military spending to 2 percent of GDP.[49] Canada's sluggish response to NORAD modernization has also become a diplomatic issue,[50] while placing additional demands on the defence budget.[51] Furthermore, at home, the Canadian Armed Forces (CAF) has been plagued by a series of high-profile sexual misconduct scandals and the narrative that it is a "toxic" environment.[52] Developments beyond Canadian control, such as the country's omission from AUKUS,[53] have served as a catalyst for fears that Canada is once again facing a "commitment capability gap"[54] and risks losing its political "seat at the table"[55] due to a lack of military credibility. This, in turn, raises questions of irrelevance and the perceived need to "defend against help."[56]

Where can Canada maximize the value of its defence contribution in the waters and airspace east of Greenland? This article discerns military threats *in, to, and through*

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[49] Alexander Panetta, "'I hope the Canadians are watching': U.S. senator tees off on Canada's military spending," *CBC News*, 27 July 2023 at https://www.cbc.ca/news/world/norad-confirmation-hearing-spending-1.6918975; Murray Brewster, "NATO is getting ready to twist Canada's arm on defence spending," *CBC News*, 7 April 2023 at https://www.cbc.ca/news/politics/nato-canada-defence-spending-1.6804733; and "Former Ministers, Generals and Senior Public Servant's Call for Action: CANADA'S NATIONAL SECURITY AND DEFENCE IN PERIL," *CDAI Open Letter*, 16 April 2023 at https://cdainstitute.ca/a-call-for-action-canadas-national-security-and-defence-in-peril/. For background, see "Funding NATO," *NATO: What we do* (April 2023) at https://www.nato.int/cps/en/natohq/topics_67655.htm.

[50] See Nancy Teeple and Ryan Dean (eds.) *Shielding North America: Canada's Role in NORAD Modernization* (Peterborough: NAADSN Engage Series, 2021).

[51] See, for example, "Biden visit puts Canadian defence spending, NORAD modernization back under microscope," *Canadian Press*, 22 March 2023.

[52] See Charlotte Duval-Lantoine, *The Ones We Let Down: Toxic Leadership Culture and Gender Integration in the Canadian Forces* (Montreal & Kingston: McGill-Queen's Press-MQUP, 2022).

[53] Lee Berthiaume, "Canada on sidelines as U.S., Britain, Australia move ahead on new security deal," *CBC News,* 13 March 2023 at https://www.cbc.ca/news/politics/aukus-national-defence-britain-australia-1.6777498.

[54] R.B. Byers, "Canada's Challenges," *The Adelphi Papers* 26, no. 214 (1986): pp. 5-12.

[55] Joel J. Sokolsky, "A Seat at the Table: Canada and its Alliances," *Armed Forces & Society* 16:1 (1989): pp. 11-35.

[56] Nils Ørvik, "Defence against help - a strategy for small states?" *Survival* 15, no. 5 (1973): pp. 228-231 and P. Whitney Lackenbauer, "'Defence Against Help': Revisiting a Primary Justification for Canadian Participation in Continental Defence with the United States," *Journal of Military and Strategic Studies* 20, no. 2 (2021): pp. 62-89.

the Arctic and North Atlantic east of Greenland as an alternative method for mapping threats to Canada and its allies. Ultimately, this report represents a first step towards delineating opportunities for Canada to contribute to the defence of its allies and, by extension, protecting North America and Canada's national security.

Historian P. Whitney Lackenbauer's "threats through, to, and in the Arctic" framework of analysis [57] was originally designed to address the levels-of-analysis problem that plagues studies of Arctic security. The framework breaks the "Arctic" into a series of geostrategic theatres or "sub-arctics."[58] The framework helps to explain why extreme notions of "Arctic exceptionalism" or regional conflict persist.[59] It also suggests that the Arctic is far more susceptible to crisis spilling *into* the region than it is to the eruption of conflict owing to dynamics *within* the region.[60] The framework is adapted here to delineate threats in, to or passing through the region into the North Atlantic east of Greenland.

Former NORAD commander General Terrence O'Shaughnessy argued in early 2020 that the "geographic barriers that kept our homeland beyond the reach of most conventional threats" no longer guarantee North America as a *sanctuary*, and that "the Arctic is no longer a fortress wall … [but a conduit] of approach for advanced conventional weapons and the platforms that carry them."[61] This motivated Lackenbauer to ask what that "mean[s] for a country [Canada] with Arctic policies predicated on the

[57] P. Whitney Lackenbauer, "Threats Through, To, and In the Arctic: A Framework for Analysis," *Policy Brief*, 23 March 2021 at https://www.naadsn.ca/wp-content/uploads/2021/03/Lackenbauer_Threats-Through-To-and-In-the-Arctic.pdf.

[58] Ryan Dean, "Mythbuster," *NAADSN Activity Report*, 11 June 2020 at https://www.naadsn.ca/wp-content/uploads/2020/08/MythBuster-Final.pdf.

[59] Andreas Østhagen and P. Whitney Lackenbauer, "Security Dynamics In, Through, and Over the Arctic "Region"," in Michael Goodsite and Niklas Swanström (eds.) *Towards a Sustainable Arctic: International Security, Climate Change and Green Shipping* (Singapore: World Scientific, 2023), pp. 1-24.

[60] For more on horizontal escalation, see Black, Flanagan, Germanovich, Harris, Ochmanek, Favaro, Galai, Gloinson, "Enhancing deterrence and defence on NATO's northern flank," pp. 7.

[61] "Statement of General Terrence J. O'Shaughnessy, United States Air Force Commander, United States Northern Command and North American Aerospace Defense Command," before the Senate Armed Services Committee, 13 February 2020 at https://www.armed-services.senate.gov/imo/media/doc/OShaughnessy_02-13-20.pdf.

idea of the region as a place (and particularly an Indigenous homeland) rather than a threat vector."[62]

Lackenbauer posits that "threats *in* the Arctic originate within the region and have primary implications for the region." Most – but not all – of these threats are non-military in nature. An example of a threat *in* the Arctic is permafrost degradation threatening critical infrastructure. Perhaps the best example of a military threat *in* the Arctic is submarines. "Threats *to* the Arctic are those that emanate from outside of the region and affect the region itself." Examples include a below-the-threshold attack on critical Arctic infrastructure or the acquisition of a port or airfield at a strategic location by a company owned and controlled by a non-like-minded state. Military threats *to* the Arctic are less rare than those in the Arctic – for example, NATO poses a threat to the Russian Arctic Bastion. "Threats passing *through* the Arctic emanate from outside of the region and pass through or over it to strike targets also outside of the region." Given the geography of the northern hemisphere, most of the military threats examined are *through* threats. For example, a ballistic missile launched from Russia would likely pass over the Russian and Canadian Arctics before striking a target in the northern continental United States.[63]

Lackenbauer acknowledges that there are some threats that can fall between the in, to, and through framework. For example, "climate change (which is caused by activities outside the region and thus represents a threat to it, while regional and local climate dynamics in the Arctic such as extreme weather threaten local residents), will straddle these categories." However, he notes that "this conceptual exercise around threats can help to determine appropriate scales for preparedness and response, and by which primary stakeholders, to different threats rather than bundling them all together as a generic laundry list of "Arctic threats.""[64] The following cases represent a chance to determine appropriate Canadian contributions to Russian military threats in, to, or passing through the waters and airspace east of Greenland.

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[62] Lackenbauer, "Threats Through, To, and In the Arctic," pp. 1-2. For more on the Arctic as a conduit, see Ken Eyre, "Forty Years of Military Activity in the Canadian North, 1947-87," *Arctic* 40, no. 4 (1987): pp. 292-99.
[63] Lackenbauer, "Threats Through, To, and In the Arctic," pp. 1-2.
[64] Lackenbauer, "Threats Through, To, and In the Arctic," pp. 2.

The Norwegian High North

Norwegian Arctic strategy declares that the Arctic – which the Norwegians refer to as their *High North* – "remains Norway's most important area of strategic responsibility." The country shares a direct land and maritime border with the Russian Arctic Bastion, where "Russia's nuclear deterrence and retaliation capabilities are based on the Kola Peninsula." Norwegian policy documents note that:

> These strategic weapons have been significantly upgraded as part of the modernisation of Russia's armed forces, which began in 2008. The region has great military and strategic significance. In the event of a security crisis, Russia could increase the readiness of these forces. This would reduce Norway's freedom of action and movement on its own territory and limit Allied access to the North Sea and the North Atlantic.[65]

Norwegian policy subsequently frames NATO as "the cornerstone of Norway's security and our defence and deterrence"[66] to balance against this asymmetry of force.

Norwegian policy ultimately concludes that "Russia's desire to be the dominant power in what Moscow regards as its sphere of influence conflicts with international principles relating to the right of countries to determine their own foreign policy and choose their own alliances."[67] Norwegian/Russian relations have declined over the past decade, with Russia's framing of Norway as a *good neighbour* associated with bilateral (such as the 2010 maritime delimitation agreement[68]) and multilateral cooperation (through the Arctic Council, for example) becoming increasingly subsumed by the

[65] Norwegian Ministry of Foreign Affairs (NMFA), "Setting the course for Norwegian foreign and security policy," Meld. St. 36 (2016–2017) Report to the Storting (white paper), 15 at https://www.regjeringen.no/contentassets/0688496c2b764f029955cc6e2f27799c/en-gb/pdfs/stm201620170036000engpdfs.pdf.

[66] Norwegian Ministries, "The Norwegian Government's Arctic Policy: People, opportunities and Norwegian interests in the Arctic," (2021), pp. 3 at https://www.regjeringen.no/globalassets/departementene/ud/vedlegg/nord/arctic_strategy.pdf.

[67] NMFA, "Setting the course for Norwegian foreign and security policy," pp. 15.

[68] See "Treaty between the Kingdom of Norway and the Russian Federation concerning Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean," Norwegian Ministry of Foreign Affairs (2010) at https://www.regjeringen.no/globalassets/upload/ud/vedlegg/folkerett/avtale_engelsk.pdf.

narrative of Norway as a "NATO flunky."[69] Public-facing Norwegian documentation assesses Russia as increasingly authoritarian and *less predictable*, marked by "unrest and instability."[70] As Norwegian Prime Minister Jonas Gahr Støre recounted to the media when he was foreign minister 10 years earlier, there was "leeway to do things together with Russia. We thought about the High North and had many common interests, such as coastal states in the North." Much of that leeway is now gone.[71]

The suspension of multilateral and bilateral forums involving Russia and its Arctic neighbours in the wake of its renewed invasion of Ukraine in February 2022 compounds this challenge.[72] While there are few remaining diplomatic forums where Norway and Russia can meet bilaterally and multilaterally,[73] both countries have a mutual self-interest in maintaining a stable Arctic. Norway has assessed Russia as generally acting in line with international law, bilateral agreements, and accepted practice in the Arctic.[74] Indeed, Norwegian officials have stated that "Russia acts more carefully, [with] self-restraint here [in the North] compared with what they do in the Baltic Sea and especially in contrast to the Black Sea…. It is our understanding that Russia wants low tensions and stability in the north."[75] Norway assesses that future bilateral relations between these countries will be increasingly dependent upon the overarching security policy climate.[76]

Recent Norwegian messaging notes that the Arctic is becoming a stage for strategic competition between NATO and Russia. Russia is cognizant that its conventional capabilities have been weakened in Ukraine and believes that the Arctic cannot be separated from a confrontation with NATO. Weaker conventional forces mean that

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[69] Julie Wilhelmsen and Anni Roth Hjermann, "Russian certainty of NATO hostility: Repercussions in the arctic," *Arctic Review on Law and Politics* 13 (2022): pp. 130.

[70] See *Focus 2023*.

[71] Hilde-Gunn Bye, "Norwegian Prime Minister: "No signs of an increased security threat in the North"," *High North News*, 18 October 2022 at https://www.highnorthnews.com/en/norwegian-prime-minister-no-signs-increased-security-threat-north.

[72] See, for example, Andrew Bresnahan, Ryan Dean, P. Whitney Lackenbauer, and Bridget Larocque, "International Arctic Responses to the Further Russian Invasion of Ukraine: Key Sources," *Strategic Perspectives*, 30 June 2022 at https://www.naadsn.ca/wp-content/uploads/2022/06/220630-International-Arctic-responses-to-Russian-invasion.pdf.

[73] *Focus 2023*, pp. 19, 33.

[74] NMFA, "Setting the course for Norwegian foreign and security policy," pp. 14.

[75] "Changes in the Arctic," pp. 28.

[76] *Focus 2023*, pp. 19, 33.

Russia's "nuclear weapons have become significantly more important." The Northern Fleet's submarines are a crucial part of Russia's nuclear capability, leading the country to consolidate its security interests in the Arctic. While its army has been weakened, Russia's air and naval forces are mainly intact, and the country will move to replenish its long-range precision-strike weapons, as they are a key element of deterrence and warfare against NATO. To help secure its Arctic, Norway projects that Russia will continue to prioritize its strategic forces there.[77]

Furthermore, Norway notes that its geopolitical value is rising due to these developments, including Finland and Sweden joining NATO. With Swedish and Finnish NATO membership, Norwegian analysts believe that Russia will attach greater importance to Norway's coasts, territory, and infrastructure. Norway anticipates that Russia will counter NATO enlargement by changing its force deployment along its northern and northwestern borders. In the event of conflict, these analysts assess that Russian military doctrine will continue to be based on surprise and to rely on its nuclear weapons and asymmetric capabilities.[78]

In response to this security climate, Norway has invested heavily in purchasing defence capabilities relevant to checking Russian A2/AD efforts. This includes surveillance, early warning, and ballistic missile defence. The country is acquiring 52 F-35 *Lightning II*s equipped with long-range Joint Strike Missiles, as well as four German Type 212CD submarines. It is also stationing more land forces in Finnmark county (the North Cape) and purchasing P-8A *Poseidon* maritime patrol aircraft for surveillance missions in the High North to monitor Russian submarine activity.[79]

Furthermore, Norway has been heavily involved in adapting NATO's command structure to operate in its High North, with particular emphasis on NATO's new Atlantic Command – which is tasked to defend the SLOC – and Joint Force Command Norfolk (JFCNF), which "is closely integrated with the US Second Fleet and shares the same command and staff structure." NATO's Graduated Response Plans for the reinforcement of Iceland, Norway, and the northern sea areas (Svalbard) also help to protect the High

[77] *Focus 2023*, pp. 21.
[78] *Focus 2023*, pp. 34.
[79] Mikkola, "The Geostrategic Arctic,"pp. 7 and Norwegian Ministries, "The Norwegian Government's Arctic Policy," pp. 17.

North.[80] This includes Norway softening its policy of forbidding NATO bases and/or nuclear weapons on Norwegian soil by reaching a 2021 supplementary defence cooperation agreement with the United States. The agreement supports NATO collective defence by increasing cooperation at the four key points of Evenes Air Station, Ramsund Naval Station, Rygge Air Station, and Sola Air Station.[81] Norway also hosts a series of NATO exercises beyond *Trident Juncture*, most notably the biannual *Cold Response*.[82] *Cold Response 2022* involved more than 30,000 personnel from 27 countries (including Canada). [83] Norwegian policy, force structure, NATO reforms, and exercises all demonstrate that the country has taken significant steps to create a credible defence capability.

Threats IN the Norwegian Arctic

Unlike most other NATO countries, Norway faces a significant military threat *in* its Arctic. Northern Norway faces the threat of invasion by Russian forces stationed in the adjacent Russian Arctic. The North accounts for 35 percent of Norway's mainland territory, including 80 percent of its maritime zones (Svalbard), and 9 percent of Norway's population lives north of the Arctic Circle.[84] Subsequently, the "High North is central to Norway's security considerations, the primary concern being its shared land and sea border with Russia."[85] This invasion threat includes the seizure of Finnmark county – the area around the North Cape of Norway – along with the possibility of an

[80] Norwegian Ministries, "The Norwegian Government's Arctic Policy," pp. 18.
[81] "Changes in the Arctic," pp. 49. See Department of State, "U.S.-Norway Supplementary Defense Cooperation Agreement (SDCA)," Fact Sheet, Bureau of Political-Military Affairs, 16 April 2021; Government of Norway, "Norway signs Supplementary Defense Cooperation Agreement with the United States," 16 April 2021; and Astri Edvardsen, "New Norway - USA Defense Agreement Allows Extensive US Authority in the North," *High North News*, 8 June 2022 at https://www.highnorthnews.com/en/new-norway-usa-defense-agreement-allows-extensive-us-authority-north.
[82] "Exercise Cold Response 2022 – NATO and partner forces face the freeze in Norway," *NATO Newsroom*, 7 March 2022 at https://www.nato.int/cps/en/natohq/news_192351.htm?selectedLocale=en.
[83] "Changes in the Arctic," pp. 46.
[84] Norwegian Ministries, "The Norwegian Government's Arctic Policy," pp. 2.
[85] Andreas Østhagen, "The Arctic security region: misconceptions and contradictions," *Polar Geography* 44, no. 1 (2021): pp. 77.

ambitious assault on Svalbard to the north, effectively occupying the hinges of the Bear Gap.[86]

Figure 2: Ambition of Russian control and denial of the Bastion

Source: Njord Wegge, "Arctic Security Strategies and the North Atlantic States," *Arctic Review on Law and Politics* 11 (2020): p. 363.

Northern Norway, Bear Island, and Svalbard fall under Russia's "ambition of control" within the Bastion itself, posing threats to Norway's territorial integrity in the event of military conflict with NATO. While it is more likely that Russia would seek to neutralize "high-value assets like Norwegian or Finnish F-35s, C2 [command and control], radar and anti-submarine warfare platforms like the P-8 Poseidon maritime patrol aircraft" with *long-range precision fires*, the possibility of invasion remains. Seizing

[86] Njord Wegge, "Arctic Security Strategies and the North Atlantic States," *Arctic Review on Law and Politics* 11 (2020): pp. 363.

Finnmark, Bear Island, and Svalbard would help to enhance the Russian Arctic Bastion.[87] It would do this through the forward deployment of air defence (like the S-400) and anti-ship (like the Bastion-P) missile systems to this area, pushing the A2/AD capability further out into the Bastion defence east of Greenland.[88] These and additional systems could further reach out to threaten the SLOC.[89]

Defending Svalbard presents a particular challenge. Norway exercises sovereignty over the archipelago but cannot station any military force there – the 1920 Spitsbergen Treaty effectively demilitarizes Svalbard (which includes Bear Island). This lack of defence, coupled with the value that controlling the "Gotland of the Arctic" would grant over the surrounding waters and airspace, makes Svalbard a tempting target. For example, Norwegian analysts viewed Russia's *Zapad 2017* as simulating an amphibious landing on the archipelago.[90]

These perceived Russian intentions are matched by demonstrated capability. Russia has stationed significant land forces, such as a marine regiment and a motor-rifle brigade, near the Norwegian border.[91] Recent Russian military exercises like *Ocean Shield* have shown the use of these troops in amphibious operations. In the longer run, Finnish and Swedish membership in NATO will have significant "ramifications for [Russia's] Western Military District and the defence of the strategic base complexes on the Kola Peninsula," likely leading Russia to increase the number of troops stationed in and around there, as well as frustrating any Russian invasion plans of Norway.[92]

Beyond the invasion of and missile strikes against the Norwegian High North by forces stationed in the Russian Arctic, the Kremlin has demonstrated capabilities granting it a wide "range of options" in the event of conflict or crisis.[93] This includes asymmetrical capabilities such as naval mines and hybrid tactics like sabotage and information

[87] Wall and Wegge, "The Russian Arctic Threat," pp. 2.
[88] Mikkola, "The Geostrategic Arctic," pp. 5.
[89] Bredesen and Friis, "Missiles, Vessels and Active Defence," pp. 76.
[90] Pavel K. Baev, "Russian Strategic Guidelines and Threat Assessments for the Arctic," *George C. Marshall Security Insights* no. 26 (April 2019): pp. 7 and Mikkola, "The Geostrategic Arctic," pp. 6.
[91] Baev, "Russian Strategic Guidelines and Threat Assessments for the Arctic," pp. 5.
[92] *Focus 2023*, pp. 11.
[93] NMFA, "Setting the course for Norwegian foreign and security policy," pp. 15.

warfare.[94] In particular, "Norway stands out as a country where multiple hybrid threats seem to have been observed recently."[95]

Norway has experienced GPS jamming in Northern Norway and the cutting of a fibre-optic cable to Svalbard.[96] Drone activity has been sighted over communications infrastructure, airports, and military facilities. Drones have also been observed photographing Svalbard, and suspicious activity by *fishing vessels* has been noted in the littoral waters of the High North around ports and cables.[97] Norwegian authorities are concerned with sabotage,[98] and there have been allegations of *Havana Syndrome* attacks against political leaders near the Russian border.[99] There is also concern that Russia's scientific foothold in Svalbard, allowed under the 1920 treaty, could be used to both challenge Norwegian sovereignty and disrupt the coordination of NATO forces.[100]

Hybrid tactics might turn out to be Russia's preferred tool to target Arctic communities to create uncertainty and signal Russian dissatisfaction below the threshold of conflict.[101] This is especially so in the short term, given that most of Russia's conventional land forces have been deployed to Ukraine. This leaves asymmetric capabilities and their use through hybrid tactics as an important tool of cohesion remaining for Russia in the High North.[102]

Threats TO the Norwegian Arctic

Most of the threats *to* the High North involve the amplification of the military threats that Norway suffers *in* its Arctic. This includes Russian electronic warfare capacity, long-range aviation, and the surge of troops to the Arctic to assist in seizing key

[94] Black, Flanagan, Germanovich, Harris, Ochmanek, Favaro, Galai, Gloinson, "Enhancing deterrence and defence on NATO's northern flank," 12 and *Focus 2023*, pp. 34.
[95] Wall and Wegge, "The Russian Arctic Threat," pp. 8.
[96] Paul and Swistek, "Russia in the Arctic," pp. 6.
[97] Wall and Wegge, "The Russian Arctic Threat," pp. 8-9.
[98] Wall and Wegge, "The Russian Arctic Threat," pp. 1.
[99] Paul and Swistek, "Russia in the Arctic," pp. 6.
[100] Giles and Boulegue, "Russia's A2/AD Capabilities," pp. 30.
[101] Wall and Wegge, "The Russian Arctic Threat," pp. 9.
[102] *Focus 2023*, pp. 18, 34.

areas of the Norwegian High North. These forces represent a deeper control capability that Russia aims to cast across the Norwegian Arctic in the event of crisis or conflict.

Russia can project additional information, cyber, and electronic warfare capacity to the Norwegian Arctic. Offensive cyber capabilities and the integration of cyber, information, and influence operations below the threshold could isolate communities in the Norwegian Arctic and erode their confidence in institutions. Such capability can also be deployed in non-kinetic operations during conflict in support of Russia's conventional military, damaging NATO communications, domain awareness, and navigation.[103]

Russia also continues to work to extend the range of its aircraft and cruise missiles, allowing for longer-range fires from deep inside the country into the Norwegian Arctic to attack high-value targets stationed there. This includes a focus on improving its aerial refuelling, extending the range of existing aircraft into the Arctic,[104] as well as developing missile systems like the *Kalibr*-series land-attack cruise missiles and deploying *Iskander* missiles from outside the Arctic.[105] Beyond assisting in striking targets in the High North, these systems could limit Norwegian freedom of action and the ability of NATO to reinforce Arctic Norway.[106]

Lastly, troops stationed "in" the Russian Arctic can also quickly be supplemented by troops moved "to" there. Past Russian exercises have demonstrated an ability to quickly surge additional troops to the Arctic from elsewhere in the country. This represents a short-run threat to Norway until Russia can reorient its forces in response to Finland and Sweden joining NATO, which has more than double its border with the Alliance.[107]

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[103] Black, Flanagan, Germanovich, Harris, Ochmanek, Favaro, Galai, Gloinson, "Enhancing deterrence and defence on NATO's northern flank," pp. 12, 14 and *Focus 2023*, pp. 31.
[104] Robin M. Allers, András Rácz, and Stian Sæther, "Dealing with Russia in the Arctic," Finnish Institute of International Affairs (2021), p. 12.
[105] Wegge, "Arctic Security Strategies and the North Atlantic States," pp. 363 and Wall and Wegge, "The Russian Arctic Threat," pp. 5.
[106] Black, Flanagan, Germanovich, Harris, Ochmanek, Favaro, Galai, Gloinson, "Enhancing deterrence and defence on NATO's northern flank," 12 and Wegge, "Arctic Security Strategies and the North Atlantic States," pp. 375.
[107] Black, Flanagan, Germanovich, Harris, Ochmanek, Favaro, Galai, Gloinson, "Enhancing deterrence and defence on NATO's northern flank," pp. 12.

Threats THROUGH the Norwegian Arctic

Threats *through* the Norwegian Arctic are linked with the level of Russian ambition from area control within the Bastion to A2/AD into its defence. Russia is increasingly aiming to project force out from under its A2/AD umbrella through the GIUK Gap and into the North Atlantic.[108] New submarines and missiles have major implications for NATO to keep the SLOC open to Europe[109] and renew the North Atlantic as an avenue of approach to North America. With the Norwegian Arctic central to the importance Russia attaches to its conventional long-range missiles, its nuclear weapons, and the SLOC, the full spectrum of threats that could be expected to pass through the region range from nuclear weapons to cyberattacks on infrastructure.[110]

The SSBNs of the Northern Fleet operate primarily in the Arctic Ocean and the Barents Sea. They are armed with strategic weapons that will, in the event of war, pass through the Norwegian Arctic on their way to targets further south and west. These submarines "are generally assumed to represent the most credible deterrence through their second-strike capability (given the difficulties to detect and neutralize such submarines for an opponent in a potential first strike)," and thus "these military platforms are of the highest strategic value for Russia." Indeed, the assumption that Russia will undertake extensive and far-reaching measures to protect these submarines is what animates the entire Bastion concept.[111] Russia is not expected to change this force structure but modernize and further develop its nuclear arsenal and the submarines that can deploy it. This modernization includes the building of new SSBNs like the *Dolgorukiy*-class that have been deployed into the Bastion, with additional units expected over the coming decade.[112]

SSBNs are not the only strategic nuclear weapons systems that could pass through the Norwegian Arctic. Russia has continued to develop new intercontinental ballistic missiles (ICBMs), such as the *Sarmat* being tested near Arkhangelsk. The *Skyfall* nuclear-

[108] Wall and Wegge, "The Russian Arctic Threat," pp. 1-2.
[109] Norwegian Ministries, "The Norwegian Government's Arctic Policy: People, opportunities and Norwegian interests in the Arctic."
[110] Mikkola, "The Geostrategic Arctic," pp. 3.
[111] Wegge, "Arctic Security Strategies and the North Atlantic States," pp. 363.
[112] *Focus 2023*, pp. 21, 27, 29.

powered long-range cruise missile is also in development in the Russian Arctic. Similarly, the nuclear-powered and nuclear-armed *Poseidon* intercontinental torpedo is being developed and tested in the Russian Arctic. Both these weapon systems are expected to be deployed through the Norwegian Arctic.[113]

These strategic systems are also supplemented with tactical nuclear weapons. Norwegian policy makes it clear that, as Russia attaches more importance to nuclear weapons due to the relative decline of its conventional forces in the shorter term, it is more likely that it will use these weapons in the Baltic and Barents Seas. These systems can strike through the Norwegian Arctic to the south of that country or elsewhere if war erupts.[114]

Russian A2/AD capabilities represent the next level of threat passing through the Norwegian Arctic, which "would reduce Norway's freedom of action and movement on its own territory and limit Allied access to the North Sea." The primary aim of Russian A2/AD is to hold NATO forces at bay and their bases at risk, essentially cutting off Norway from allied resupply.[115] These A2/AD forces include ships, submarines, and aircraft, along with missiles like the P-800 *Oniks* (anti-ship), the *Kalibr* (land attack), and other long-range fires that these platforms can carry, as well as mines and integrated air defence systems like the S-400. These platforms and weapons are all projected to pass through the Norwegian Arctic. This capability is forecasted to be joined by hypersonic glide vehicles, uncrewed underwater or surface vehicles (UUVs/USVs), and enhanced electronic warfare capabilities. While there is risk in overstating the maturity of Russia's current A2/AD systems,[116] they are capable enough to be credible.[117] The 2019 collapse of the Intermediate-Range Nuclear Forces (INF) Treaty, which had constrained the development and deployment of ground-launched ballistic and cruise missiles with ranges of between 500 and 5,500 kilometres, has compounded the risk that these weapons would pose passing through the Norwegian Arctic. Key Norwegian bases for conducting

[113] *Focus 2023*, pp. 27.
[114] *Focus 2023*, pp. 21.
[115] Wegge, "Arctic Security Strategies and the North Atlantic States," pp. 375.
[116] Black, Flanagan, Germanovich, Harris, Ochmanek, Favaro, Galai, Gloinson, "Enhancing deterrence and defence on NATO's northern flank," pp. 12, 14.
[117] Wegge, "Arctic Security Strategies and the North Atlantic States," pp. 363.

air defence and maritime surveillance and for receiving allied reinforcements now fall within the range of Russian land-based missiles.[118]

Growing out of the A2/AD Bastion defence, Russia seeks to hold the SLOC at risk with long-range naval, air, and missile systems deployed through the Norwegian Arctic and the GIUK Gap to the west. Russia is investing heavily in new missile systems and ships, as well as submarines to carry them.[119] This includes the development of the new *Yasen*-class submarine and *Admiral Gorshkov*–class frigate, which can carry the *Kalibr* cruise missile and similar munitions. Many experts consider quiet, multi-role submarines like the *Yasen* to pose a particular threat to naval group formations and shipping in the Norwegian Sea and Atlantic Ocean.[120] These weapons and platforms are expected to be supplemented by the same hypersonics, UUVs/USVs, and other advanced missile systems like the *Tsirkon* that I discussed earlier, continuing to push Russian capability further through the Norwegian Arctic and out into the Atlantic and beyond.[121]

Infrastructure in the south of Norway is also at risk of threats passing through its Arctic. Russian doctrine calls for the striking of critical targets deep in enemy territory with long-range fires, and the country's failed assault on Ukraine demonstrated the need for such strikes. Unlike in Ukraine, where Russia attempted to capture the country intact, it would immediately target Norwegian infrastructure with large salvos of high-end missiles mixed with high-volume but low-cost weapons. Doing so would degrade Norwegian and NATO's freedom of action and demoralize the country's population.[122]

Norwegian energy infrastructure that supplies Europe represents a particularly high-value target for threats passing through the High Arctic. As the Norwegian government notes, the "geopolitical value of Norway is not just about geography," as "Europe will [increasingly] depend on Norwegian energy supplies. As sanctions have cut off Europe as an export market for Russian oil and gas, Norwegian energy production

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[118] Black, Flanagan, Germanovich, Harris, Ochmanek, Favaro, Galai, Gloinson, "Enhancing deterrence and defence on NATO's northern flank," pp. 12.

[119] Black, Flanagan, Germanovich, Harris, Ochmanek, Favaro, Galai, Gloinson, "Enhancing deterrence and defence on NATO's northern flank," pp. 12.

[120] Bredesen and Friis, "Missiles, Vessels and Active Defence," pp. 77 and *Focus 2023*, pp. 21.

[121] Black, Flanagan, Germanovich, Harris, Ochmanek, Favaro, Galai, Gloinson, "Enhancing deterrence and defence on NATO's northern flank," pp. 14 and *Focus 2023*, pp. 27.

[122] *Focus 2023*, pp. 34.

has become an increasingly inviting target to punish or compel continental politics."[123] Norwegian politicians express particular concern about the Nord Stream pipeline in the Baltic, suspicious drones, and the threats to the petroleum industry's infrastructure.[124]

Conclusions

Norway is the gateway to the Russian Arctic. Its territory forms the Bear Gap, demarking the border between Russian control efforts their Bastion and their denial efforts over the Bastion defence and beyond into the SLOC. Due to this geography, regardless of the level of ambition in any potential future conflict, the territory of Norway will be involved.

Norway is unique amongst the countries east of Greenland in that it faces a full spectrum of acute threats "in," "to," and "through" its Arctic, including a potential partial invasion of its North. This is reflected in Norwegian academic and government literature that points out specific Russian threats in detail and to a degree not seen in other open-source literature. Ultimately, Norway is very much the nexus of Russian threats east of Greenland and defending its Arctic Bastion.

The spectrum of threats ranges from asymmetric threats like uncrewed aerial vehicles (UAVs) and cyberattacks below the threshold to the use of tactical nuclear weapons. These weapons, as well as conventional warheads, could be delivered from aircraft, submarines, ships, and ground-based launchers originating within and beyond the Russian Arctic. Ultimately, Russia aims, in the event of war, to cut off Norway from resupply and reinforcement from its NATO allies, smash its infrastructure, and neutralize its forces, using Norway as a staging ground for its own A2/AD Bastion defence and strikes against the SLOC and beyond.

The United Kingdom: "The Arctic's Nearest Neighbour"

Despite not possessing Arctic territory, the region has come to play an increasing role in the UK's defence plans. UK policies frame the Arctic as the "High North," essentially the European Arctic and the surrounding waters of the North Atlantic

[123] *Focus 2023*, pp. 16, 32.

[124] Bye, "Norwegian Prime Minister: "No signs of an increased security threat in the North.""

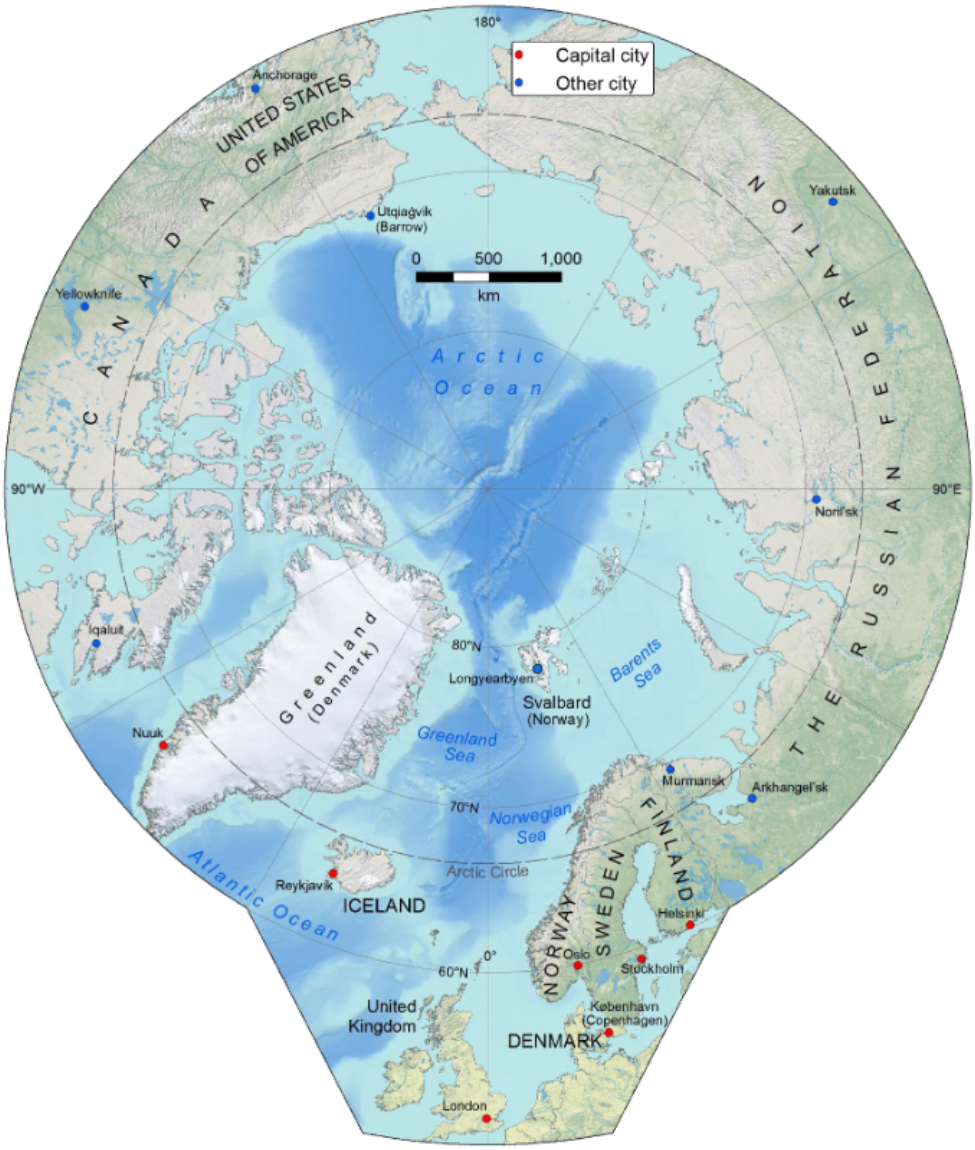
towards the GIUK Gap.[125] Scholars have observed that a "considerable Cold War legacy continues to influence British thinking regarding the security of its northern maritime area," with an emphasis on Russian submarine activity near the GIUK Gap.[126] UK policy frames the High North as a centre of strategic competition, orienting its Arctic defence policy to contributions there. Specifically, UK policy is shaped around the role of NATO in this High North and how it can best assist the Alliance with protecting both Norway and the SLOC from North America to Europe from potential conflict with Russia.[127]

[125] Ministry of Defence, *The UK's Defence Contribution in the High North* (London, Ministry of Defence, 2022), pp. 2.

[126] Marc Lanteigne, "Inside, Outside, Upside Down? Non-Arctic States in Emerging Arctic Security Discourses," in Kristina Spohr, Daniel S. Hamilton, and Jason C. Moyer (eds.) *The Arctic and World Order* (Washington, DC: Paul H. Nitze School of Advanced International Studies, 2020), pp. 390.

[127] Ministry of Defence, *The UK's Defence Contribution in the High North*, pp. 4, 10.

Figure 3: The UK's conception of the High North



Source: Ministry of Defence, *The UK's Defence Contribution in the High North* (London: Ministry of Defence, 2022), p. 2.

In 2013, the UK became the first non-Arctic state to publish an Arctic White Paper.[128] *Adapting to Change: UK Policy Towards the Arctic* was premised on climate change

[128] Lanteigne, "Inside, Outside, Upside Down?," pp. 391.

and the threat it poses to the human security of the Arctic.[129] This white paper also began the process of socializing the UK as the "Arctic's nearest neighbour."[130] Despite not having territory in the Arctic, the region and this notion of neighbourliness would go on to be increasingly mentioned in subsequent UK Arctic and defence documents.

2014's *National Strategy for Maritime Security* built on *Adapting to Change*, stating that climate change could open new shipping routes through the Arctic. With these routes came new maritime security threats.[131] The spectre of new maritime threats was teased out the following year in *Responding to a Changing Arctic*, a House of Lords report. This report stated that the "MoD [Ministry of Defence] is aware of the importance of anti-submarine operations in this area and will need to keep this issue under constant review." The report recommended to the government that the military build its cold-weather capabilities and renew its maritime patrol capability.[132] In 2016, the Commons' Defence Committee, in its *Russia: Implications for UK Defence and Security* report, expanded on this threat. In the wake of the initial 2014 invasion of Ukraine, the Committee was comfortable naming Russia as a threat and pointing out its military expansion into the Arctic and the waters and airspace east of Greenland, threatening both the stability of the region and the SLOC.[133]

This policy development was influenced not only by Russia's 2014 invasion of Ukraine but also by the substantial and increasing UK defence contact with Norway and the United States, focusing on maritime patrol, anti-submarine warfare, and joint Arctic warfare training and exercises.[134] *On Thin Ice: UK Defence in the Arctic*, a 2017 report by the UK Defence Committee, argued that the UK "sustains a range of capabilities which could play decisive roles"[135] in the Arctic. The Royal Navy's nuclear-powered submarines and twin aircraft carriers are, the report noted, rare and powerful contributions to

[129] Duncan Depledge, Klaus Dodds & Caroline Kennedy-Pipe, "The UK's Defence Arctic Strategy: Negotiating the Slippery Geopolitics of the UK and the Arctic," *The RUSI Journal* 164, no.1 (2019): pp. 33-4.
[130] Alyson Bailes, "The Arctic's Nearest Neighbour?" *Arctic Yearbook* (2014): pp. 5.
[131] Secretary of State for Defence, *National Strategy for Maritime Security* (London: HM Government, 2014), pp. 25.
[132] Committee on the Arctic, *Responding to a changing Arctic* (Westminster: House of Lords, 2015), pp. 108-9.
[133] Defence Committee, *Russia: Implications for UK defence and security* (Westminster: House of Commons, 2016).
[134] Depledge, Dodds & Kennedy-Pipe, "The UK's Defence Arctic Strategy," pp. 36.
[135] Defence Committee, *On Thin Ice: UK Defence in the Arctic* (Westminster: House of Commons, 2017), pp. 51.

NATO's anti-submarine warfare capabilities. This capability in the High North is further augmented with the addition of British maritime patrol aircraft.[136]

A theme running through the UK academic literature during this time was the policy disconnect between the defence concerns of the MoD and the climate change and soft security concerns of the Foreign Office.[137] This was reflected in the UK's second Arctic policy, *Beyond the Ice: UK Policy Towards the Arctic*, released in 2018. The policy neither named Russia nor specified the threats articulated in the MoD policy. The "defence" section of the policy simply noted that the Arctic Council was an important forum for promoting cooperation across the region, building confidence between the Arctic states and the larger international community. The policy did note that NATO remains a central plank for cooperation among its Arctic members, supplemented by the Arctic Coast Guard Forum and the Arctic Security Forces Roundtable.[138] Subsequent British policy towards the Arctic has favoured the MoD's concerns.[139]

Threats TO the UK's High North

As Britain lacks an Arctic, *in* threats are not applicable for this analysis. However, UK policy is increasingly oriented towards intercepting military threats *to* its conceptualization of the High North. Current British policy regarding the security and defence of the High North is presented in the country's third Arctic policy framework, 2023's *Looking North: The UK and the Arctic*, as well as the MoD's 2022 *The UK's Defence Contribution in the High North*.

Looking North advances the UK's whole-of-government approach to the region. This approach includes drawing on the UK's diplomatic excellence, its defence capabilities, and the "world-class scientific expertise of the UK Arctic research community," to work with international partners to help keep the Arctic "safe, secure, peaceful, and well governed."[140] The third of the four priority areas is "preserving

[136] Defence Committee, *On Thin Ice*, pp. 51-6.
[137] Depledge, Dodds & Kennedy-Pipe, "The UK's Defence Arctic Strategy," pp. 33-4.
[138] Polar Regions Department, *Beyond The Ice: UK Policy Towards the Arctic* (London: UK Government, 2018), pp. 21.
[139] Depledge, Dodds & Kennedy-Pipe, "The UK's Defence Arctic Strategy," pp. 33-4.
[140] Polar Regions Department, *Looking North: The UK and the Arctic* (London: UK Government, 2023), p. 8.

security and stability," with the strategy calling for upholding the "international order and freedom of navigation … [and] protect[ing] its critical infrastructure in the High North and other national interests, and that of its Allies."[141] This priority area is further unpacked in *The UK's Defence Contribution in the High North*.

Citing the Russian militarization of and Chinese interests in the Arctic, the MoD paper posits that the region could suffer from *spill-over* conflict with these countries originating from disputes erupting elsewhere. On the possibility that the Arctic could become a region of high tension, 2022's *The UK's Defence Contribution in the High North* paper seeks to enable the UK to respond appropriately. The paper examples that the UK has an excellent relationship with all the Arctic states (except Russia) and will work with these allies to preserve the political stability and military security of the region. The paper elaborates that "as a leading European NATO Ally, the UK is prepared to defend our Arctic Allies and respond to aggression. We will contest malign and destabilising behaviours and activity in the region which threaten our interests, the safety of the inhabitants of the Arctic, and the stability of the region." This includes protecting "Critical National Infrastructure and our other national interests, and those of our Allies."[142]

The UK aims to do this by developing a sustainable, modern, and proportionate defence capability in the region, including through investment in research and development, working with allies and partners to align policy, activity, and capability where possible across all domains, and maintaining a coherent defence posture in the region. This proportionate defence capability includes the UK-led Joint Expeditionary Force (including Denmark, Finland, Iceland, Norway, and Sweden), as well as the Northern Group (including Denmark, Estonia, Finland, Germany, Iceland, Latvia, Lithuania, the Netherlands, Norway, Poland, and Sweden). Plans include establishing a standing response force built around the existing Littoral Response Group (North) of the Royal Navy.[143]

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[141] Polar Regions Department, *Looking North*, pp. 10.

[142] MoD, *The UK's Defence Contribution in the High North*, pp. 1, 7-8.

[143] Polar Regions Department, *Looking North*, pp. 15, 35-6 and MoD, *The UK's Defence Contribution in the High North*, pp. 8-11.

UK documentation – and past NATO exercises like *Trident Juncture* – point towards the UK contributing to Alliance forces designed to withstand and contest the Russian A2/AD threats *to* the High North. This includes countering Russian efforts to cut off Norway's coasts from NATO resupply and landing troops there to defend that country from a possible partial invasion of its northern region. UK forces, and their allies, could expect to face the full range of Russian weapons across all domains, from undersea to aerospace threats and everything in between. British references to defence infrastructure go beyond scenarios such as protecting Norwegian radar installations or undersea sonar systems in the event of a conflict, to deterring below-threshold threats. An excellent example of this is deterring possible tampering around undersea cables, a behaviour Russia has repeatedly demonstrated in the past.[144]

Threats THROUGH the UK's High North

Two of the MoD's other current objectives for the High North include ensuring British freedom to navigate and operate across the wider region and to reinforce the rules-based international order (RBIO), particularly the United Nations Convention on the Law of the Sea (UNCLOS).[145] Much of the language surrounding these objectives deals with developing an anti-submarine warfare (ASW) capability across the North Atlantic and High North, from the GIUK Gap to the shores of Norway, to protect the SLOC. Platforms such as Britain's nuclear-powered submarines and new aircraft carriers are mentioned as spearheading these ASW duties, with references to supplementing them with P-8A maritime patrol aircraft.[146] While focused on Russian submarines potentially *breaking out* into the Atlantic, government and academic literature increasingly references the threats of long-range aviation and cruise missiles projecting out to the SLOC, threatening shipping to Europe.[147]

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[144] See, for example, Guy Faulconbridge, "Russia now has free hand to destroy undersea communications cables, Putin ally says," *Reuters*, 14 June 2023, at https://www.reuters.com/world/europe/russias-medvedev-says-moscow-now-has-free-hand-destroy-enemies-undersea-2023-06-14/.

[145] MoD, *The UK's Defence Contribution in the High North*, pp. 8.

[146] MoD, *The UK's Defence Contribution in the High North*, pp. 2.

[147] See, for example, Committee on the Arctic, *Responding to a changing Arctic*, and Bradford Dismukes, "The return of great-power competition—Cold war lessons about strategic antisubmarine warfare and defense of sea lines of communication," *Naval War College Review* 73, no. 3 (2020): pp. 6.

Conclusions

Despite not being an Arctic state, the UK has taken an increasing interest in the region over the last decade. This interest has shifted from a concern with climate change and scientific research to one based around protecting shipping across the High North and rising geostrategic tensions with Russia. These efforts are based on contributions to NATO.

Much of the British defence effort to counter Russian military threats *to* its notion of the High North revolves around Norway and preventing its isolation from NATO in the event of conflict. This is largely a littoral effort. British efforts to counter Russian threats *through* the Arctic are centred on ASW from the SLOC to the coast of Norway. This is largely a maritime-focused effort. However, both British defence contributions "to" and "through" the High North must contend with the A2/AD efforts of the Russian Bastion defence in the event of conflict. British policy intends to continue to develop these defence capabilities to check Russian threats "to" and "through" the High North and as a means of deterrence.

Along the Gap: The Faroe Islands

Despite lying between Iceland and the UK, the Faroe Islands are missing from the GIUK acronym. Still, they are a valuable part of its monitoring and defence. Separating the southern edge of the Russian Bastion defence from the waters of the North Atlantic, the Faroe Islands are a part of the Kingdom of Denmark. While their relationship with Denmark is often overshadowed in Arctic political science circles by Greenland and its agitation for independence, the Faroe Islands are present throughout Danish defence policy and are part of NATO's redeveloping concerns for the region.

Figure 4: The Faroe Islands along the GIUK Gap

Source: Adapted from The Greenland Card report, reproduced at Trine Jonassen, "Denmark and Faroe Islands Close Surveillance Gap With New Radar," *The High North News*, 14 June 2022 at https://www.highnorthnews.com/en/denmark-and-faroe-islands-close-surveillance-gap-new-radar.

Responsibility for the defence and security of the Faroe Islands lies with the Kingdom of Denmark. Denmark considers itself an important actor in the Arctic and the North Atlantic and has paid increasing attention to these closely related regions over the past decade. Danish literature refers to this as the Arctic/North Atlantic security policy complex, "which has a key role in the mutual nuclear deterrence between the USA and Russia," lying halfway along the path of intercontinental missiles between Russia and the US. Furthermore, the Faroe Islands lie along the GIUK Gap, "which Russian submarines

and warships must pass to enter the North Atlantic." These two considerations form this security complex.[148]

Denmark's *Strategy for the Arctic 2011–2020* points to its desire to strengthen its "status as [a] global player in the Arctic,"[149] while its 2022 *Foreign and Security Policy* places emphasis on the Arctic/North Atlantic security policy complex. The threat that Russian military activity in the Arctic poses has been a growing consideration for years, and the February 2022 invasion of Ukraine has highlighted the importance of security in Danish Arctic policy. This was emphasized the following year with the release of the *Foreign and Security Policy Strategy*, the previous policy having been rendered obsolete by Russia's renewed invasion of Ukraine on 24 February 2022.[150]

Danish policy ultimately views the world as one characterized by increasing strategic competition, with both China and Russia revising the RBIO. Russia's renewed invasion of Ukraine "has reinforced existing dynamics and challenges," and Denmark "must deal with the subsidiary consequences of Russia's war of aggression," particularly the heightening relevance of the Arctic/North Atlantic security complex.[151] This is demonstrated by the increased NATO attention to the High North and to the GIUK Gap over the past decade.[152]

Danish/Faroe Islands policy is currently in a learning phase, both with each other and with NATO. The presence of Danish defence ensures improved surveillance and enforcement of sovereignty, as well as safeguarding the interests of the allies and NATO in cooperation with the Faroese government.[153] However, Danish security analysts recognize that "there are major differences between the conditions for wider societal security and the official organisation in Denmark, the Faroe Islands and Greenland," as recently demonstrated by the procurement of telecommunications infrastructure and the

[148] The security policy analysis group, *Danish Security and Defence towards 2035* (Copenhagen, Danish Government, 2022), pp. 5.
[149] Ministry of Foreign Affairs of Denmark, *Kingdom of Denmark Strategy for the Arctic 2011–2020* (2016), pp. 38, http://library.arcticportal.org/1890/1/DENMARK.pdf.
[150] *Foreign and Security Policy Strategy* (Copenhagen: Ministry of Foreign Affairs, 2023), pp. 5.
[151] *Foreign and Security Policy Strategy*, pp. 8.
[152] The security policy analysis group, *Danish Security and Defence towards 2035*, pp. 25.
[153] *Foreign and Security Policy Strategy*, pp. 12.

division of labour between these three governments. As a special committee arising from this matter notes, "it will not benefit the security of the Kingdom if dealing with the increasingly frequent occurrence of new threats outside the conventional security policy space regularly leads to friction in the internal relations of the Kingdom."[154]

Second, as NATO improves its understanding of the Atlantic and North Atlantic through a Faroese perspective, the Faroese are improving their knowledge about NATO. As a Danish study notes, "the development of actual NATO positions and policies for significant parts of the Faroe Islands and Greenland territories can be expected." Potential new obligations for the Faroe Islands within NATO are compounded by its relationship with Denmark, with new alliance obligations being "demanding to fulfil, not least because of the harsh climate and vast distances in the region."[155]

While these relationships are being worked out, Denmark has made new investments to improve the defence and security of the Faroes. This includes new spending on the Danish Emergency Management Agency for an enhanced crisis management capacity that the Faroes can request as required. The Centre for Cyber Security advises both public and private actors in the Faroe Islands, recognizing that critical telecommunications infrastructure will come under increasing threat.[156] Denmark has also increased its military footprint on the islands through an operational coordination arrangement with a liaison unit in Tórshavn. In August 2020, Copenhagen announced that it would re-establish the Royal Danish Air Force's military radar station on the Faroe Islands as part of a 1.5-billion-kroner Arctic capacity-building package. The US Navy also resumed port visits to the Faroes in 2019 after a 33-year absence.[157]

This movement in the defence of the Faroe Islands is complicated by a push for independence from the Kingdom of Denmark and historically close economic ties with Russia. Nearly half of the Faroese support independence from Denmark. This issue is driven by practical considerations revolving around trade rights and functional jurisdiction rather than the nationalistic drivers seen in other separatist regions in

[154] The security policy analysis group, *Danish Security and Defence towards 2035*, pp. 72.
[155] The security policy analysis group, *Danish Security and Defence towards 2035*, pp. 26.
[156] The security policy analysis group, *Danish Security and Defence towards 2035*, pp. 76.
[157] Hilde-Gunn Bye, "Denmark Steps Up in Greenland, Sends Political Advisor to Nuuk," *High North News,* 19 August 2020, at https://www.highnorthnews.com/en/denmark-steps-greenland-sends-political-advisor-nuuk.

Europe.[158] Danish authorities have worked to mitigate these practical considerations, such as through the February 2021 amendment to the 2018 *Danish Defence Agreement*, adding 1.5 billion DKK to the country's Arctic spending, which is specifically being done in *close dialogue* with and with "political support from the Faroe Islands and Greenland."[159] During the 2021 Arctic Circle Assembly, Danish Foreign Minister Jeppe Kofod told the audience that security issues would be "dealt with together, on an equal footing." Danish policy is also committed to sharing intelligence and analysis on security issues through a "respectful, inclusive approach."[160]

The Faroese economy is dependent upon its fisheries, with Russia historically being a major customer.[161] This trade connection is an important consideration in the Faroese relationship with Russia and a crucial consideration in Faroese public opinion. This trade relationship led the Faroese government to distance itself from the Danish and EU position on Russia in the wake of its initial 2014 invasion of Ukraine. The Faroe Islands did not join the Danish and EU sanctions imposed after the invasion of Crimea. After the imposition of EU sanctions in 2014, the head of the Faroese government, Kaj Leo Holm Johannesen, travelled to Moscow to make it clear that his government did not support the EU sanctions.[162] In the wake of the renewed 2022 invasion, the Faroese did begin imposing sanctions on Russia despite the economic costs associated with doing so.[163]

Despite this, the US is the Faroes' second-largest trading partner by value after Russia and followed by Denmark, and a concerted effort is underway to expand these trade links. In November 2020, Washington and Tórshavn signed a Partnership Declaration highlighting US-Faroese cooperation in marine resource management and

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[158] US Department of State, "Arctic Attitudes Toward Great Power Competition" (2019), pp. 11.
[159] Forsvarsministeriet, "New Political Agreement on Arctic Capabilities for 1.5 billion DKK," 11 February 2021, https://www.fmn.dk/en/news/2021/new-political-agreement-on-arctic-capabilities-for-1.5-billion-dkk
[160] Jeppe Kofod, "Q&A Session," *Arctic Circle Assembly*, 21 October 2021, https://www.youtube.com/watch?v=5HC01BDkUuQ&list=PLI0a77tmNMvSz9UV6iIPzMfAnu8qiY7vj&index=15.
[161] Martin Breum, "Protecting its booming fish exports, the Faroe Islands refuse to support EU and US sanctions against Russia," *Arctic Today*, 11 September 2018, https://www.arctictoday.com/protecting-booming-fish-exports-faroe-islands-refuse-support-eu-us-sanctions-russia/.
[162] Breum, "Protecting its booming fish exports."
[163] The Government of the Faroe Islands, "Faroese Government introduces sanctions in response to Russia's illegal attack on Ukraine," 22 July 2022 at https://www.government.fo/en/news/news/faroese-government-introduces-sanctions-in-response-to-russia-s-illegal-attack-on-ukraine/.

environmental protection, cultural cooperation, sustainable economic development, entrepreneurship, innovation, tourism, and trade. While there have been tensions in this bilateral relationship, such as American efforts to block the islands from using Huawei equipment in their 5G networks, overall bilateral relations are good.[164]

Threats TO the Faroe Islands

As with the UK, the Faroe Islands do not possess any Arctic territory, precluding any "in" threats. However, defence installations on the islands represent a target for threats "to" the Faroese. Primary amongst these is the new air surveillance radar to be erected on the islands to help close domain awareness gaps between Iceland and the UK. The radar has a range of between 300 and 400 kilometres, and accompanying spending includes long-range drones or UAVs to supplement its detection capabilities. Originally announced in February 2021, the construction of the radar on a summit near Sornfelli has taken on new urgency in the last 18 months, with agreement to build it reached in June 2022, a day after Denmark reached an agreement to access Icelandic radar data. This data will close a surveillance hole in the GIUK Gap that was created when the previous radar station on the Faroe Islands was removed in 2007.[165]

Defence infrastructure supporting other possible surveillance systems, such as subsurface listening devices or telecommunication centres routing data elsewhere, is also a likely target for adversaries. The Danish military's Liaison Unit based at Tórshavn is similarly a likely target. While this infrastructure could be targeted by cruise missiles or other long-range systems, they are likely to come under cyberattack as well.

Threats THROUGH the Faroe Islands

Russia's long-term political goal is to separate or at least weaken the Faroe Islands' connections to Denmark. The dissolution of the Danish Kingdom would open a hole for

[164] Zazithorn Ruengchinda, "Faroe Islands telecom company and PM did not feel any pressure from China regarding Huawei," *ScandAsia*, 9 January 2020, at https://scandasia.com/faroe-islands-telecom-and-pm-havent-received-any-pressure-from-china-and-huawei/.

[165] Trine Jonassen, "Denmark and Faroe Islands Close Surveillance Gap With New Radar," *The High North News*, 14 June 2022 at https://www.highnorthnews.com/en/denmark-and-faroe-islands-close-surveillance-gap-new-radar.

NATO in the GIUK Gap and potentially sever vital submarine communication cables ferrying sensitive information back and forth between the Alliance. Breaking this link in the GIUK Gap would also improve Russia's access to the Atlantic Ocean and threaten the SLOC and beyond.

Military threats through the Faroes would likely target undersea cables. Along with damaging NATO communications, disrupting undersea listening devices around the Islands could also inhibit allied domain awareness. Such attacks would help open the way to the SLOC and potentially divert NATO forces from engaging further into the Bastion off the coast of Norway or in the Baltic Sea.

Conclusions

The strategic value of the Faroe Islands comes from their location along the GIUK Gap. Denmark and NATO, for example, are addressing holes in NATO domain awareness due to a current lack of radar on the Islands. This ironically makes the Islands increasingly liable to *to* threats targeting this infrastructure. These threats to the Faroes are intrinsically tied to the *through* threats passing over or around them: breaking up the awareness and lines of communication along the GIUK Gap to better enable Russian access to the North Atlantic and beyond.

Iceland: Stuck in the Middle

Iceland's location in the middle of the GIUK Gap has imbued it with great strategic importance for Russia, the United States, and NATO. Accordingly, Iceland was invited to join NATO as a founding member of the Alliance in 1949, serving as a lynchpin in the Alliance defence of the SLOC across the North Atlantic.[166] Nevertheless, Iceland's small population and history of pacifism resulted in it being "unarmed for centuries," with no military forces beyond the Icelandic Coast Guard. On 5 May 1951, the US and Iceland reached a defence agreement that allows the US, on behalf of NATO, to defend Iceland.

[166] NATO, "Iceland and NATO," *NATO Declassified* at https://www.nato.int/cps/en/natohq/declassified_162083.htm. Iceland's strategic value to North Atlantic security was demonstrated when Britain invaded Iceland in 1940 in response to Germany seizing Norway, with Canada occupying the country from 1940–41. Steven J. Bright, "Z Force on the Ground: The Canadian Deployment to Iceland, 1940-41," *Canadian Military History* 31, no. 1 (2022): pp. 1-31 and Donald F. Bittner, *The Lion and the White Falcon* (Hamden, CT: Archon Books, 1983).

The agreement stipulates that Iceland will provide the facilities – primarily Naval Air Station Keflavik – and the US the forces to defend not only the island but the surrounding SLOC. American forces must, however, prioritize the "maximum safety of the Icelandic people," and their force levels are subject to Icelandic approval.[167] Generally good relations between Iceland and the US and NATO have been maintained since.

Naval Air Station Keflavik was built in the early 1950s, largely from Second World War infrastructure designed to help the Allies patrol the SLOC against German forces and as a way station for aircraft flying to the European Theatre. Two of the radar complexes constructed in the late 1950s to assist NATO were closed soon after due to high costs. Four other radar stations were eventually built and consolidated in 1987 under the Icelandic Air Defence System, which also includes the NATO Control and Reporting Centre at Keflavik. These four massive radar systems have a coverage of 250 nautical miles. Together, they feed a recognized air picture into the NATO Integrated Air and Missile Defence System overseen by the Allied Air Command at Ramstein, Germany. NATO forces also used Keflavik to launch fighter air patrols over the Norwegian Sea and anti-submarine warfare aircraft into the transit routes that Soviet submarine and surface forces would need to take to reach the SLOC of the Atlantic Ocean.[168]

US forces operated in Iceland until 2006, when they unilaterally withdrew from the island,[169] but the absence of NATO forces in Iceland was short-lived. The North Atlantic Council decided in July 2007 to carry out air surveillance missions from Iceland of two to three weeks' duration, an average of three times per year.[170] This practice of NATO forces cycling into Iceland continues. Although the US military has yet to re-establish a permanent presence in Iceland, it has awarded contracts to upgrade Keflavik

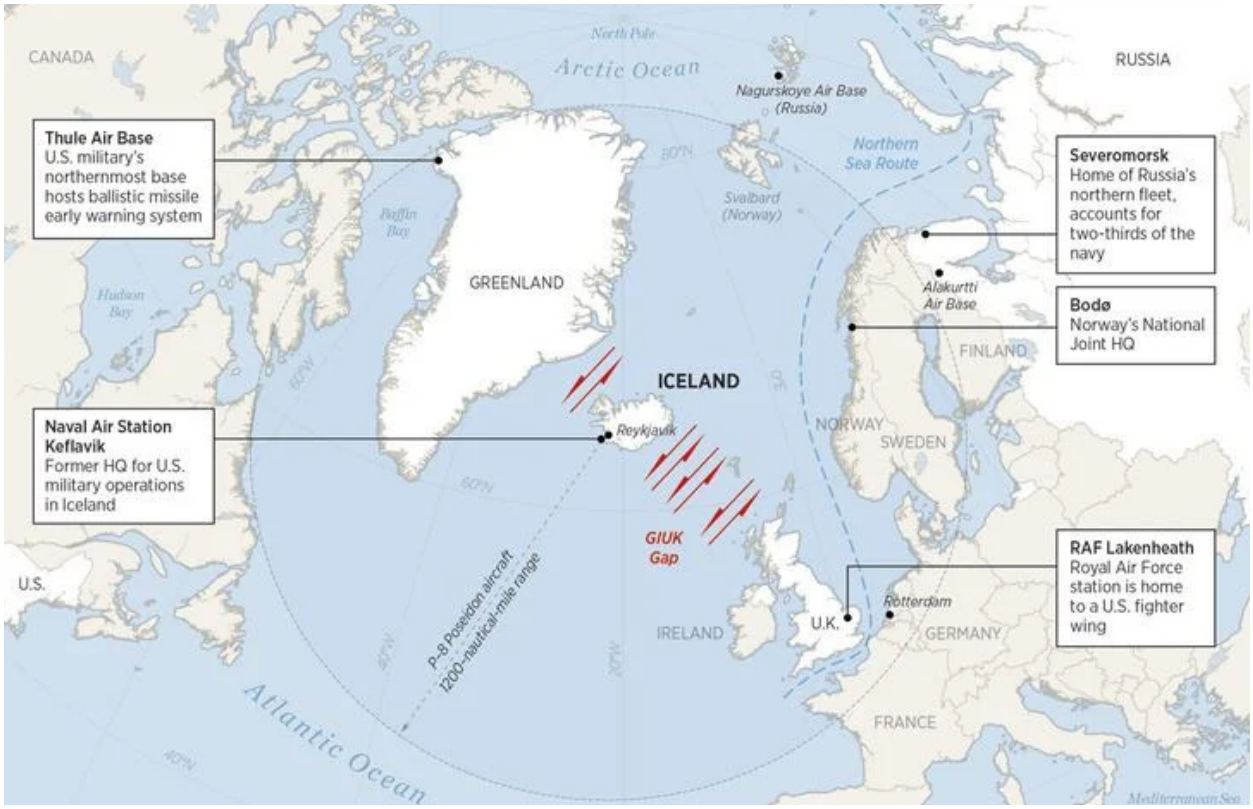
[167] "Defense of Iceland: Agreement Between the United States and the Republic of Iceland, 5 May 1951," in *American Foreign Policy 1950-1955*, Basic Documents Volumes I and II, Department of State Publication 6446, General Foreign Policy Series 117 (Washington, DC: US Government Printing Office, 1957).
[168] NATO, "Iceland's Role in NATO Integrated Air and Missile Defence System" (2016) at https://ac.nato.int/archive/2016/icelands-role-in-nato-integrated-air-and-missile-defence-system.
[169] See Valur Ingimundarson, "Iceland as an Arctic State," in Ken S. Coates and Carin Holroyd (eds.) *The Palgrave Handbook of Arctic Policy and Politics* (Cham: Palgrave Macmillan, 2020), pp. 254.
[170] Government of Iceland, "National security policy for Iceland," *Ministry of Foreign Affairs* at https://www.government.is/topics/foreign-affairs/national-security/.

"to provide a high level of readiness for U.S. Air Forces in Europe." The facilities were expected to be ready by April 2023.[171]

The Arctic has traditionally occupied only a peripheral role in Icelandic foreign policy, as the island has historically oriented itself south to the North Atlantic. *Iceland's Policy of Matters Concerning the Arctic Region* is Iceland's second Arctic policy, updating its 2011 *A Parliamentary Resolution on Iceland's Arctic Policy*.[172] With "the Arctic region in international affairs hav[ing] increased considerably in recent years on account of debate about climate change, natural resources, continental shelf claims, social changes and new shipping routes," [173] the Icelandic parliament (the Alþingi) adopted Parliamentary Resolution No. 20/139 in March 2011, establishing an Arctic policy to guide the country's interests in the region. Like its successor, the 2011 Arctic policy was focused on human and environmental security. There is a substantial consistency across the two documents, with Iceland's Ministry of Foreign Affairs attributing this to a "consensus on Iceland's Arctic policy across the political spectrum."[174] The major difference between the two Arctic strategies is that the 2021 document specifically names Russia and China as additional drivers for the policy update.[175]

[171] Mila Cisneros, "Air Force awards multiple contracts for airfield construction at NAS Keflavik," *Air Force*, 24 September 2020, at https://www.af.mil/News/Article-Display/Article/2359356/air-force-awards-multiple-contracts-for-airfield-construction-at-nas-keflavik/.
[172] "A Parliamentary Resolution on Iceland's Arctic Policy," Parliamentary document, 2011.
[173] "A Parliamentary Resolution on Iceland's Arctic Policy," Parliamentary document, 2011, pp. 3.
[174] Ministry of Foreign Affairs, "Iceland's Policy on Matters Concerning the Arctic Region," Parliamentary Resolution 25/151, October 2021, pp. 1.
[175] Ministry of Foreign Affairs, "Iceland's Policy on Matters Concerning the Arctic Region," pp. 20-2.

Figure 5: Iceland along the GIUK Gap



Source: Adapted from Daniel Kochis and Brian Slattery, "Iceland: Outsized Importance for Transatlantic Security," *The Heritage Foundation*, 21 June 2016.

Iceland and Norway issued a joint declaration on defence cooperation on 22 March 2017. The Declaration highlights the importance of Iceland's position along the SLOC and "increasing challenges in the maritime domain across NATO's area of responsibility," as well as the significant role that Iceland and Norway, "as North-Atlantic maritime Allies, … play in monitoring and responding to increasing military activities that have implications for Euro-Atlantic security." The goal of the Declaration is "to strengthen NATO's ability to maintain the transatlantic sea lines of communications," with Norway providing forces and Iceland providing support to host those forces.[176]

The defence agreement with the US and the Declaration with Norway focused on the SLOC but were complemented in 2020 by a commitment to seek a bilateral agreement with Greenland. A Greenland Committee appointed by the Icelandic Minister for Foreign

[176] Joint Declaration between Iceland and Norway on defence cooperation, Oslo, 22 March 2017.

Affairs published *Greenland and Iceland in the New Arctic*, which came up with 99 recommendations for bilateral cooperation "as a template for future co-operation between the countries and to provide consultation for the Minister."[177] The security aspects of the document are oriented around the needs of the individual and community, such as providing enhanced search and rescue (SAR) services.

Threats IN and TO the Icelandic Arctic

While Iceland rests below the Arctic Circle, the northern waters of its exclusive economic zone (EEZ) stretch north and northwest into the rich fishing grounds of the Greenland and Norwegian Seas. Iceland's main connection to the Arctic is as one of the eight members of the Arctic Council. Historically, Iceland has used the Arctic Council to dilute the influence of the Arctic coastal states and ensure a full-fledged decision-making role in Arctic affairs.[178] An excellent example of this was Icelandic resistance to the meetings of the *Arctic 5* Coastal States of Canada, Denmark, Norway, Russia, and the US, in 2008 and 2010, which excluded Finland, Iceland, and Sweden. Following the 2010 meeting of the Coastal States in Canada, Iceland mounted a diplomatic protest.[179] The Icelandic government rejected the legal reading of the term *coastal state* based on the delimitation of the Arctic continental shelf according to UNCLOS and on being restricted to the Arctic Ocean proper. Since Iceland's EEZ extends into the Arctic, it claims status as an Arctic Coastal State.[180] The five littoral states have not been willing to accept Iceland's argument, but some of them recognize that Iceland's location makes it difficult to exclude it from deliberations on key Arctic Ocean issues.[181]

Iceland has a long history of trade in fish with the Russian Federation. Accordingly, Reykjavík's decision to sanction Russia following its initial 2014 invasion of Ukraine meant economic losses for Iceland that year, compounded in 2015 by Russia

[177] Greenland Committee, *Greenland and Iceland in the New Arctic* (Reykjavík: Ministry for Foreign Affairs, Iceland, 2020), pp. 11.
[178] Ingimundarson, "Iceland as an Arctic State," pp. 251-2.
[179] Iona Allan, "Arctic Narratives and Political Values: Arctic States, China and NATO," NATO Strategic Communications Centre of Excellence (May 2020), pp. 37.
[180] Ingimundarson, "Iceland as an Arctic State," pp. 257.
[181] Ingimundarson, "Iceland as an Arctic State," pp. 257.

imposing its own retaliatory economic measures.[182] These measures hit Iceland's fisheries hard, leading industry groups to protest the sanctions against Russia. This added a point of friction between Iceland and its Western allies, with the then-prime minister and leader of the Progressive Party proclaiming that Iceland could not simply follow the European Union blindly in adopting sanctions against Russia.[183] The Foreign Minister of Iceland at the time, Gunnar Bragi Sveinsson, admitted that this was the hardest political decision that he had had to make: "our allies, the USA and the EU, requested that we take part and align ourselves with the sanctions… The main thrust came from the United States."[184] In applying the sanctions, the two largest governing coalition political parties (the conservative Independence Party and the centrist agrarian Progressive Party) were torn between the idea of maintaining a foreign policy that best served their direct economic interests and maintaining good relations with the liberal democracies.[185]

Public protests about Iceland's NATO membership were not uncommon, with Prime Minister Katrín Jakobsdóttir having opposed her country's membership multiple times. In discussions with reporters during NATO's *Trident Juncture* in 2018, the prime minister stated that "my party's position is that we are against Iceland's membership of NATO.… My personal position is that we should leave NATO."[186]

Although Russia's renewed invasion of Ukraine in 2022 has largely muted both the economic and political protests,[187] all of this sets up an interesting situation for both Iceland and Russia. While not *in* the Arctic, Iceland's northern waters are. Russian submarines, and even surface vessels and aircraft, could operate in these waters – thus

[182] Reykjavik Economics, "The economic impact of the Russian counter-sanctions on trade between Iceland and the Russian Federation" (2015), at https://www.forsaetisraduneyti.is/media/Skyrslur/TheEconomicImpactoftheRussianSanctionsonTradebetweenIcelandandRussia.pdf.

[183] Baldur Thorhallsson and Pétur Gunnarsson, "Iceland's alignment with the EU–US sanctions on Russia: autonomy versus dependence," *Global Affairs* (2017), pp. 1, 5, 7.

[184] Thorhallsson and Gunnarsson, "Iceland's alignment with the EU–US sanctions on Russia," pp. 5.

[185] Thorhallsson and Gunnarsson, "Iceland's alignment with the EU–US sanctions on Russia," pp. 1.

[186] Martin Breum, "Iceland is key to NATO — but Iceland's prime minister worries about militarization in the North Atlantic," *Arctic Today* (2 November 2018), https://www.arctictoday.com/iceland-key-nato-icelands-prime-minister-worries-militarization-north-atlantic/.

[187] See, for example, Bresnahan, Dean, Lackenbauer, and Larocque, "International Arctic Responses to the Further Russian Invasion of Ukraine."

representing threats *in* Iceland's Arctic. Russian forces patrolling here could threaten Iceland's fishing trawlers or even its Coast Guard's offshore patrol vessels operating there – a threat *to* Iceland's Arctic. This also sets up a scenario in which Russian forces operating outside the Icelandic Arctic could fire into it.

Fortunately, both scenarios are unlikely. Russian belligerence could disrupt Moscow's larger political goal of encouraging the withdrawal of NATO forces from Iceland and the island from the Alliance itself. The economic and military damage that would be done would be negligible and not worth the political costs. Without Iceland, NATO would have a limited ability to patrol the GIUK Gap, particularly weakening its ASW abilities there.

Threats THROUGH the Icelandic Arctic

Threats *through* the Arctic to Icelandic defence infrastructure in support of NATO and the Alliance forces potentially stationed there represent a far more likely scenario. Politically, this could be framed as a strike at NATO rather than Iceland. The epicentre of a Russian strike at Iceland would be Naval Air Station Keflavik. As well as supporting NATO ASW and air patrols, Keflavik routes NATO Integrated Air Defense System (IADS) data from Iceland's radars to Germany for processing. Striking this base with long-range fires would diminish NATO's domain awareness around Iceland. The destruction of NATO fighter jets and ASW aircraft, such as the P-8A *Poseidon*, would also degrade NATO's ability to control the air and maritime spaces at the centre of the GIUK Gap.[188] The destruction of the H-1 radar station Miðnesheiði, the H-2 station at Gunnólfsvíkurfjall, the H-3 station at Stokksnes, and the H-4 station at Bolafjall, covering the four corners of Iceland, would also affect Allied domain awareness.[189]

Beyond Russia striking NATO facilities and forces stationed on Iceland directly, the island also must contend with the larger strategic threat of weapons passing through or over it, targeting ships passing along the North Atlantic SLOC and North American mobilization directly.[190] This includes submarines like the *Yasen* and bombers like the

[188] NATO, "Iceland's Role in NATO Integrated Air and Missile Defence System."
[189] Icelandic Coast Guard, "Íslenska loftvarnakerfið" (2022) at https://www.lhg.is/varnarmal/loftrymisleit-og-islenska-loftvarnarkerfid.
[190] O'Shaughnessy and Fesler, "Hardening the Shield."

Bear carrying various cruise missiles, hypersonic weapons, UAVs, and UUVs/USVs. This also includes more exotic weapons like the *Skyfall* and *Poseidon*. Such weapons passing "through" or "over" Iceland would, at a minimum, help Russia defend its Bastion and, at a maximum, disrupt and delay NATO reinforcement to Europe.

Conclusions

As with the Faroe Islands, Iceland's strategic value lies in its position along the SLOC between Europe and North America, with "the control of [these] seas … one of the reasons why Iceland continues to be a vital member of the Alliance."[191] Threats through the Icelandic Arctic, including those striking at the island directly, are less about the country itself than they are about degrading NATO's domain awareness and control capabilities therein.

Given the quirk of geography that has Iceland's northern waters stretching into the Arctic region, *in* and *to* threats are effectively collapsed into one methodological category. Russian strikes at Icelandic targets within these waters – threats *to* the Icelandic Arctic – would have little military or economic utility and would bring high political costs. Except for NATO forces passing through Iceland's Arctic, there is little direct kinetic military threat to Iceland.

East of Greenland Conclusions

These cases demonstrate that the waters and airspace east of Greenland are of great strategic significance. This importance continues to rise with strategic competition and as China and Russia seek to revise the international system. East of Greenland is a doorway between the Bastion of the Russian Arctic and the SLOC of the North Atlantic that link Europe to its North American allies. As technology continues to advance, this area will remain a significant conduit for long-range fires from the Bastion defence into the North Atlantic and beyond, not unlike the *Great Circle Route* across the North Pole during the Cold War. Threats through this route will likely proliferate rather than diminish in the future.

This article broadly charts military threats originating mostly from the Russian Bastion off the Kola Peninsula, as they emanate out towards the SLOC and beyond to

[191] NATO, "Iceland and NATO."

Canada, Greenland, and the United States. Applying the *in*, *to*, and *through* methodology reveals that the Arctic region east of Greenland is becoming a conduit for attacking not only the SLOC but North America as well.

Norway is unique in that it faces a full spectrum of acute threats *in*, *to*, and *through* its Arctic, including the potential invasion of its North. The spectrum of threats ranges from asymmetric threats like UAVs and cyberattacks below the threshold to the use of tactical nuclear weapons. These weapons, as well as conventional warheads, could be delivered from aircraft, submarines, ships, and ground-based launchers originating within and beyond the Russian Arctic. In the event of war, Russia aims to isolate Norway from NATO. Ultimately, Norway is very much the nexus of Russian threats east of Greenland and their defence of the Russian Arctic Bastion.

Unlike Norway, destined by geography to defend itself in such a conflict, the UK is increasingly choosing to face the high-intensity environment of Russia's A2/AD in the Bastion defence. British policy continues to be oriented towards developing an ASW capability across the North Atlantic and High North from the GIUK Gap to the shores of Norway to protect the SLOC. Platforms such as Britain's nuclear-powered submarines and new aircraft carriers give it capabilities few other countries have to pursue these objectives.

The strategic value of the Faroe Islands and Iceland comes from their location along the GIUK Gap. Plugging holes in NATO domain awareness and communications along this Gap strengthens Alliance defences and, conversely, makes both the Faroe Islands and Iceland more vulnerable to *in* and *to* threats targeting this defence infrastructure. The military threats *in* and *to* these islands are less about the countries themselves than they are about degrading NATO's domain awareness, communications, and control capabilities stationed there.

Russian threats *in* or *to* Norway, the UK, the Faroe Islands, and Iceland are ultimately about closing the Bear Gap to NATO and opening the way *through* the GIUK Gap to the North Atlantic. As a result, identifying *in* and *to* threats east of Greenland will help thwart *through* threats from reaching Canadian shipping in the SLOC or targets within Canada. Contributing military capabilities to this vital region could be a barometer for Canadian defence credibility with its allies. The application of the framework is a first

step towards charting alternative methods of examining approaches to the Arctic, Canada, and North America.

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