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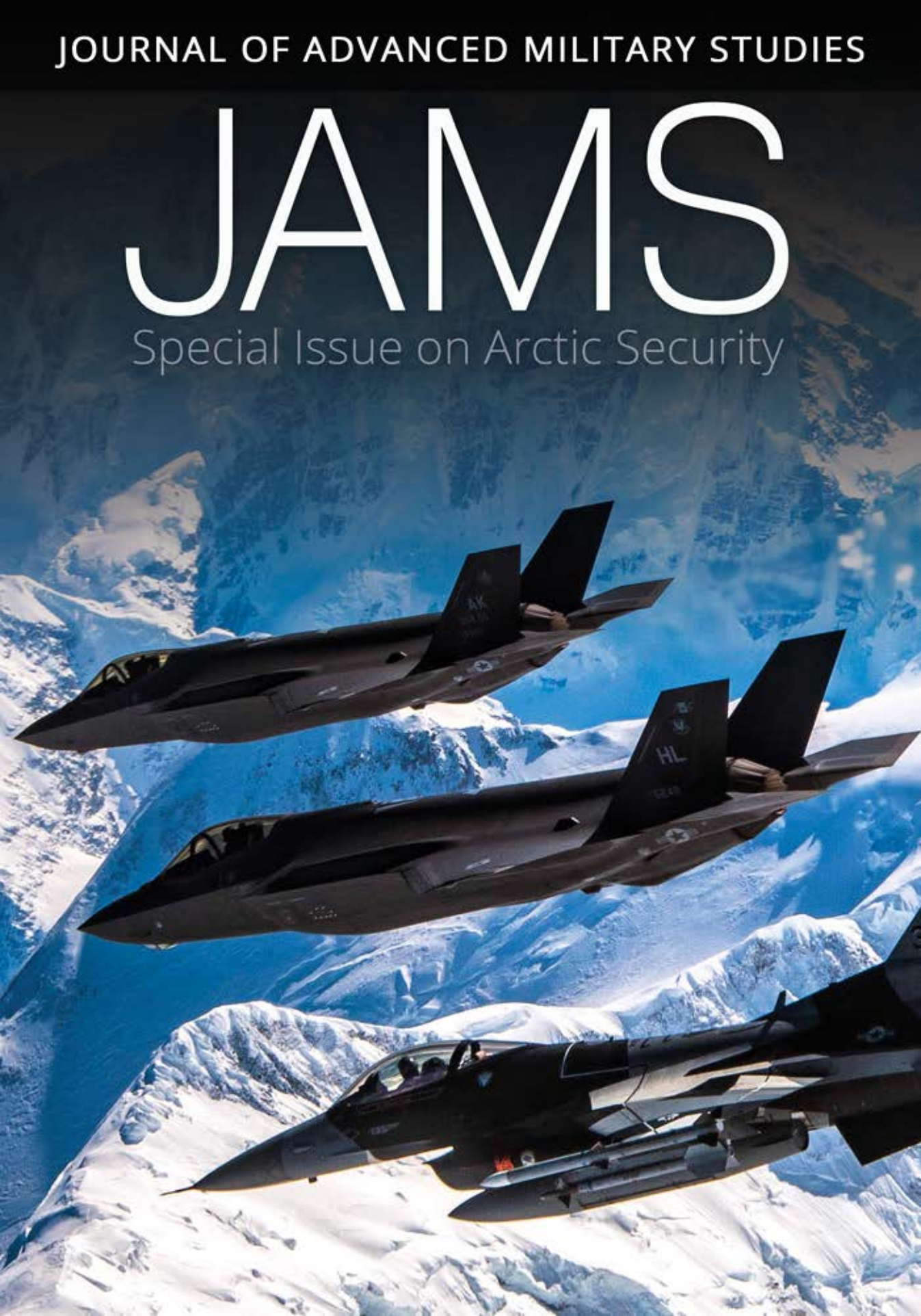
Special Issue on Arctic Security



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From the Editors

We are honored to serve as the editors of this special issue of the *Journal of Advanced Military Studies*. While the global focus and especially U.S. focus has shifted to Asia and the Indo-Pacific, we want to remind readers that the Arctic remains a vital security interest. For the U.S. Marine Corps especially, Europe's high north and the Arctic are significant. This is an area where the North Atlantic Treaty Organization (NATO) shares a maritime as well as terrestrial border with Russia, but where geographic features make this northern part of the alliance's area of responsibility a maritime flank.

The changing environment, both in the realm of climate, security, and diplomacy, coupled with the high north's proximity to Russia's most potent military force-complex on the Kola Peninsula—holding some of the world's largest concentration of nuclear weapons—makes NATO's northern flank a region of key strategic importance. As the Arctic region also functions as a key area for U.S. global power projection, in addition to its importance in holding vital sea lines of communication open, including control of the Greenland-Iceland-U.K. (GIUK) gap, the North Atlantic and Arctic region is, and will remain, a Marine Corps concern for the foreseeable future.

Russian activity during the last decade, and particularly the full-scale invasion of Ukraine in 2022, has cooled relations with the other Arctic nations. This has led to overturning the decades-long status of the Arctic as an exceptionally cooperative region to one of heightened tension, where diplomacy has been put on hold. In the immediate aftermath of the start of the full-scale war in Ukraine, the Arctic Council paused its activities. When the chairmanship was transferred from Russia to Norway in 2023, and then again to Denmark in 2025, most of the council's limited activities were without Russian participation. Diplomatic and senior level interactions between East and West have also remained in limbo. Additionally, China has gradually sought to strengthen its foothold in the Arctic, with Beijing and Moscow declaring an unlimited partnership. Nevertheless, how Chinese Arctic ambitions will materialize in the future and how it will affect the balance of power in the north remains unclear.

While cooperation between the East and West are at a record low in the

Arctic, NATO has expanded in the region with the ascension of Finland and Sweden to the alliance, strengthening European security, and the transatlantic ties the European Arctic. The expansion of NATO and the evolving Sino-Russian ties in the north illustrate the dynamic security situation experienced in the Arctic.

In this special issue of *JAMS*, we bring new research and scholarship on the Arctic to the attention of readers. Jonas Kjellén analyzes how changes in climate, technology, force posture, and assessments of nuclear deterrence influence the plans for the Russian Northern Fleet. He further discusses how potential changes in the Russian bastion defense should influence Western security thinking and defense planning. In Njord Wegge's article, he investigates how strategic competition play out in today's Arctic, linking the developments to international relations theory and the instruments on power given by the diplomatic, informational, military, and economic (DIME) spectrum.[1] Charlotte Hulme analyzes China's economic and security interests in the Arctic as peripheral to the global U.S.-China great power competition. Then Mark Vicik's article focuses on how China has benefited from Russian diplomatic isolation in the Arctic, the influence this has had on the region, as well as how this has affected Western states. Ryan Duffy, Jahara Matisek, Jeremy McKenzie, and Chad Pillai challenge NATO assumptions about security and defense in Europe's high north in the face of closer Chinese-Russian cooperation, arguing for the establishment of a dedicated NATO Arctic military force. Finally, Gonzalo Vázquez investigates the return of great power competition in the Arctic and what this means for NATO's defense planning in the region. The article concludes that NATO should establish a standing maritime group for the Arctic.

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Endnote

1. For reader transparency, the Marine Corps University Press managed the peer review process of this article.

The Russian Northern Fleet Bastion Revisited

Jonas Kjellén

Abstract: The Soviet bastion defense concept was likely among the most influential approximations of Soviet wartime strategy during the Cold War, and it has continued to shape Western perceptions of Russian naval strategy in the post–Cold War era. However, recent shifts in Russian military geography and technological advancements challenge the rationale for Moscow to pursue a bastion defense strategy during wartime. Climate change is altering the conditions for Russian military posturing in the Arctic, while new technologies are reshaping the Russian Navy's role in nuclear deterrence and the function of its naval general-purpose forces. This article contends that Western military planners must adapt their assessments of Russia's wartime strategies to reflect these evolving dynamics, ensuring sound and strategic responses in the high north.
Keywords: naval bastion, strategic ballistic missile submarines, SSBN, nuclear deterrence, Sergey G. Gorshkov, Arctic, Northern Fleet, Kola Peninsula, high north

During the Soviet era, Western thinking on Soviet naval strategy was dominated by the notion that the Soviet Union would prioritize protecting its strategic ballistic missile submarines (SSBN) in so-called "bastions." This meant that if war broke out, a considerable share of the Soviet Navy would have remained in proximity to home waters to safeguard the survival of the SSBNs, and thereby the capability of nuclear retaliation.

This bastion defense concept has remained central to the Western understanding of Russian naval strategy even after the dissolution of the Soviet Union. It persisted throughout the years of economic hardship during the 1990s and

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continues to be the prevailing explanation for Russian naval and nuclear posturing in the European high north.

The bastion dominance in Western threat perceptions today—50 years after its conception—necessitates a review of its continued viability. This article examines whether it is feasible to assume that SSBN bastions may indeed persist in contemporary Russian naval wartime planning, particularly in the context of a Russian naval bastion in northern Europe. To that end, the factors that were foundational to initial hypotheses inferring a Soviet bastion concept in the early 1970s are employed.

The analysis shows that while Russia's military posture on the Kola Peninsula is still strong and holds a majority of Russia's SSBNs, compelling reasons exist to question whether the bastion defense concept remains a valid approximation of Russia's wartime strategy in the high north. Altered military-geographical conditions in combination with military-technological development have lessened the rationale for Russia to pursue such a strategy in northern Europe.

The article's structure has five sections. Following this introduction, the second section discusses methodological challenges. The third section outlines the bastion defense concept and its origins, with the purpose of producing an analytical framework to structure the analysis. Based on the resulting analytical framework, the fourth section discusses three aspects of Russia's current naval posture and force design where shifts or continuities either support or weaken an assumption of a contemporary Russian bastion defense strategy in the European high north. The fifth and final section presents the study's overall conclusions.

Methodology

Studying wartime naval strategies based solely on open sources creates several challenges. In the study of the bastion defense concept, two challenges are particularly salient.

First, the bastion defense concept is a Western construct, merely inferred through the reading of a specific set of articles authored by the Soviet Navy commander in chief (CINC), Admiral Sergey G. Gorshkov, published during the first half of the 1970s. The concept's claim to reveal central tenets of Soviet wartime strategies merely from open-source material is part of its appeal but also a point of criticism, as its existence has not been confirmed in Soviet or Russian sources.[1] In addition, any attempt to replicate the analytical work done in the 1970s is likely an impractical undertaking, as no contemporary Russian naval leader can measure up to the prolific writings of Admiral Gorshkov.

Second, the bastion defense concept is an assumption of the Soviet Union's preferred operational approach to maintain a nuclear strategic reserve during war. While exercises generally aim at emulating wartime conditions, it is not

certain that the Russian Navy's peacetime naval posturing and activity in the high north reflect its wartime role. Further, obtaining current and reliable data on naval activity and operations is usually difficult to access outside intelligence services.

Considering the lack of certainty that the bastion defense concept has ever corresponded with actual Soviet strategy and the difficulty of obtaining evidence, it is remarkable how the bastion defense concept has influenced, and likely continues to influence, Western military planning. Therefore, examining whether it is a feasible approximation of Russia's wartime naval strategy in the high north is urgent and important.

For the purpose of this article, the author proposes a methodological approach based on the reasoning and justifications provided by Western, predominantly American, researchers that underpinned the assumption of a Soviet bastion defense concept in the 1970s. This article argues that the bastion defense concept rests on the following three assumptions:

- Russia's disadvantaged military geography makes SSBN operations close to home waters favorable.
- The role of the Russian SSBNs is to ensure the second or third nuclear-strike capability.[2]
- The main mission of the naval general-purpose forces is to ensure the survival of the SSBNs.

It is possible to examine these three assumptions due to their military-geographical and military-technological nature. For example, continuity or shifts in geography, as well as ship and submarine design, either weaken or strengthen the notion that the bastion defense concept is a valid estimate of Russia's current wartime strategy. The fourth section of this article discusses these three assumptions sequentially.

The literature on Soviet bastions sometimes uses different terminology. For example, while some writers use the term *SSBN bastions*, others use *SSBN sanctuaries*, but for the purposes of this discussion, they are essentially regarded as the same. Characterizing the Soviet bastion as a "strategy" is valid, but to underscore that it is a presumed strategy, *bastion defense concept* is the preferred term here. When contextually feasible, the terms *defense* and *concept* are omitted.

Regarding sources, it should be noted that ever since the Western, primarily U.S., debate on Soviet naval strategy intensified during the 1960s, the body of literature on the subject has grown correspondingly. Consequently, works that provide an overview of this long and eventful period, such as Jessica Huckabey's master's thesis "Sea Power Rivalry: The Influence of Admiral Gorshkov on American naval thought, 1963–1985," have been highly valuable. Nonetheless, original texts by participants in the early analyses of the Soviet Admiral Sergey

Gorshkov's articles (the Gorshkov series), such as Robert W. Herrick, Robert G. Weinland, and Bradford Dismukes, as well as the perhaps most vocal critic of a Soviet bastion defense concept, Jan S. Breemer, have been crucial for this analysis. Particularly foundational to this study is the 45-page analysis on this theme by James M. McConnell from September 1974.

The Soviet Bastion Defense Concept

During the course of the 1960s, the Soviet fleet was strengthened both in numbers and quality, soon becoming a major concern for Western navies.[3] Lessons learned from World War II dominated the thinking of Western military planners, and the Soviet naval buildup was assumed to be geared toward offensive operations in the event of war.[4] Sharing similar military-geographical restraints on its naval operations as Nazi Germany, the Soviet shipbuilding programs similarly prioritized building submarines, producing them in numbers far surpassing American shipyards.[5] Moreover, early Cold War Soviet submarines were directly derived from late-war German submarine designs.[6] By extension, it was not a far-fetched assumption that the Soviet High Command had adopted an offensive strategy similar to that of the *Wehrmacht*; namely, denying the U.S. Navy access to sea lines of communication (SLOC) between North America and Europe in preparation for another battle of the Atlantic.[7]

The view that the Soviet naval buildup was intended to challenge U.S. seapower aligned well with the dawn of the nuclear age, which introduced both nuclear weapons and propulsion to the maritime domain. During the 1960s, deploying submarines armed with nuclear-tipped submarine-launched ballistic missiles (SLBM) to linger along the American Eastern and Western seaboards was one of three methods to deliver nuclear warheads to targets on the North American continent.[8] Thus, the nuclear age reinforced the rationale for forward-deploying submarines into the Atlantic Ocean, initially to interdict adversary SLOCs but later extending to ensure nuclear deterrence.

The Gorshkov Series

The expansion of the Soviet fleet during the 1960s, nonetheless, sparked a debate on whether the increasingly powerful Soviet Navy had either offensive or defensive purposes.[9] By the early 1970s, the debate was nurtured by an unexpected influx of primary source data, including 11 articles authored by then Navy CINC, Admiral Gorshkov. Published in 1972–73 under the headline "Navies in War and Peace" in the Soviet Navy's main journal for naval doctrinal debate, the *Morskoi Sbornik*, this massive body of text contained the CINC's thoughts by drawing historical parallels on why the Union of Soviet Socialist Republics (USSR) needed a strong navy.[10] Thanks to the article's swift translation and publication by the U.S. Naval Institute's monthly magazine *Proceed-*

ings, the Gorshkov series became readily available for the participants in the Western debate on Soviet naval strategy.

Most initial efforts to interpret Gorshkov's texts focused on structure and the most obvious key concepts presented. One discussion centered on whether Gorshkov was speaking authoritatively when declaring new policy or merely airing his personal views in an attempt to gain popular support.[11] Other analyses stressed that Gorshkov's articles should be seen in the context of détente and the ongoing Strategic Arms Limitation Talks (SALT) negotiations, as limitations would likely hamper the development and employment of the Soviet Navy.[12] A topic that generated much interest was how Gorshkov advocated a strong navy to pursue peacetime Soviet state interests on a global level. This corresponded well with the expansion of the Soviet peacetime naval presence around the world from the mid-1960s and a simultaneous reduction of Western naval presence.[13] This in turn prompted a discussion about the evolution of Soviet naval diplomacy.[14]

While the translation of the Gorshkov series made the articles available to a large Western expert community, the greatest impact resulted from interpretations by specialists in Slavic studies and Soviet military affairs at the Center for Naval Analyses (CNA). Most notably, CNA researcher James M. McConnell paved the way for an alternative view on Soviet wartime naval strategy. By considering nuances in the Russian language and particular terminology used in Soviet doctrinal texts, he suggested that the Soviet Navy would pursue a defensive approach based on near-shore deployment. This view contrasted sharply to the prevailing image of an offensive Soviet naval disposition and was therefore met with skepticism and resistance.[15]

The Assumptions Underpinning the Bastion Defense Concept

In an article from 1974, McConnell thoroughly explains his supposition that the Soviet Navy's wartime strategy rests on what has become known as a bastion defense concept.[16] While McConnell does not use the term *bastion*, three points emerge that this article argues constitute the essence of the bastion defense concept. The first concerns Gorshkov's notion of how the Soviet Union's disadvantaged military geography restricts wartime employment of its naval forces. The other two points pertain to the role and mission of the Soviet fleet in terms of deterrence and warfighting, based on how Gorshkov valued the utility of certain naval platforms and technological achievements.

According to McConnell, Gorshkov saw the geography of the Soviet Union as one of the primary dimensioning influences of its naval force structure and operations.[17] It shaped the Soviet naval force composition in such a way that its primary strike force relied on submarines and naval aviation instead of surface

combatants.[18] However, Gorshkov did not dismiss the utility of a surface fleet and acknowledged its role in peacetime diplomatic missions. He believed that it was necessary that surface ships continue to be the fleet's most numerous forces but advocated specialized warships over multirole vessels.[19] McConnell nevertheless believed that Gorshkov suggested a defensive wartime role for the Soviet Navy because, disadvantaged by its geography, its forces had to "run the gauntlet of forward-based Western [antisubmarine warfare] ASW forces" before reaching the open sea.[20]

During the early 1960s, the short range of ballistic missiles was an obstacle to carrying out a nuclear exchange between the two superpowers. One way for Moscow to sustain deterrence was to forward deploy its ballistic-missile submarines close to the North American continent. Despite the risks involved, these submarines were the most suitable platform for such missions, offering a reasonable chance of staying hidden and surviving until a nuclear exchange became inevitable.[21] In addition, Gorshkov did not consider that deploying ASW against them was cost-effective, as their ability to remain submerged for long periods provided them with significant survivability.[22] According to McConnell, this role changed with the introduction of SLBMs with intercontinental range.

When the *Delta*-class SSBNs equipped with SS-N-8 Sawfly SLBMs entered service in 1972, virtually coinciding with the publication of the Gorshkov series, Soviet strategic submarines no longer had to venture far from base to reach patrol areas and launch zones. This practically nullified the Soviet Union's military-geographical disadvantage for the naval branch of nuclear deterrence.[23] However, the increase in missile range not only affected the SLBMs of the navy. It also allowed silo-based intercontinental ballistic missiles (ICBMs) to reach their targets from Soviet territory, and with onshore ICBMs cheaper to produce, they soon made up for missile quantity.[24] At the same time, Gorshkov maintained the view that SLBMs were superior to ICBMs as "a more effective means of deterrence."[25] Given the exceptional survivability of SSBNs, the more costly and exclusive SLBMs were withheld for later use, unlike ICBMs. Thus, according to McConnell, the role of Soviet SSBNs was no longer to participate in an initial nuclear exchange but to conserve their SLBMs for second- or third-strike tasks. Because of this specific role, McConnell argued that Gorshkov drew a stark distinction between naval capabilities intended for deterrence and those intended for warfighting.[26]

With the shift in mission for the Soviet SSBNs toward maintaining intrawar deterrence, ensuring their survival during war became more important. By patrolling in waters adjoining their naval bases where the Soviet Navy enjoyed a higher degree of sea control, the Soviet SSBNs were less exposed to North Atlantic Treaty Organization (NATO) ASW capabilities, and it was

easier to dispatch general-purpose forces to safeguard SSBNs out on patrol.[27] From Gorshkov's perspective, this was important, as he believed that submarines could only first reach their full potential when supported by surface ships and aircraft.[28] As noted earlier, Gorshkov did not believe that ASW operations against enemy SSBNs were effective.[29] However, scattering the ASW capabilities did not appeal to Gorshkov either, so he recommended that the total ASW capability of the general-purpose fleet be allocated for a pro-SSBN mission.[30]

While McConnell pioneered the interpretation of Admiral Gorshkov's work on Soviet wartime naval strategy, others followed who also made valuable contributions to the same line of thought. Although divergent views over the interpretation of the Gorshkov series continued to circulate, the overall tendency was nonetheless toward a convergence of opinion.[31] For example, Robert W. Herrick's warnings since the 1960s against overselling the threat of the Soviet Navy fit well with McConnell's analysis. He pointed at how the Soviet force structure, with its emphasis on submarines but lacking in aircraft carriers, indicated a defensive emphasis on sea denial rather than a sea-control strategy.[32] Another analyst who took part in the interpretation of the Gorshkov series was Michael MccGwire, a British professor and former Royal Navy officer. Although his conclusions on the Gorshkov series differed substantially from those of McConnell's, he also warned against inflating the Soviet threat and, according to Jessica Huckabey, saw the Soviet naval expansion as "a move forward in strategic defence."[33] Lastly, Bradford Dismukes, a colleague of McConnell's at CNA, explored the question of a pro-SSBN mission for the Soviet general-purpose forces and concluded that a pro-SSBN was likely more achievable for the Soviet ASW forces than pursuing enemy SSBNs in an anti-SSBN role.[34]

Soviet Naval Bastions

While McConnell's view quickly gained traction among other researchers, its progress in the wider ranks of the U.S. naval and intelligence communities was slower. Perhaps the most important step in its path toward general acceptance was an alleged intelligence breakthrough in 1980, but both U.S. and NATO military planners had likely considered Soviet bastion scenarios long before this.[35] It is probable, for example, that naval planners had been considering why the U.S. Navy had not observed any passes south of the Greenland-Iceland-United Kingdom (GIUK) gap by the new Soviet *Delta*-class SSBN after 1975.[36]

There were still a few critics, however; during the 1980s, the most vocal among them was Jan S. Breemer.[37] His main objection was the uncritical general acceptance of the notion, despite the fact that it "depends heavily on logic,

inference, and circumstantial evidence."[38] Other critics, such as James J. Tritten, accepted the assumption of Soviet SSBN bastions, but were skeptical of Moscow relying solely on the navy for its strategic nuclear-weapons reserve.[39]

Rather than debating their existence, discussions on Soviet bastions shifted toward detailing their implementation, geographical extent, and tactics in practice. The assumption that Moscow maintained two naval bastions, with the Kola and Kamchatka Peninsulas as bases, became consensus.[40] Initially, the bastions envisioned were rather extensive, with the western bastion encompassing the Greenland and Barents Seas and the eastern in the Sea of Okhotsk with occasional deployment to the Bering Strait.[41] From the mid-1980s and the introduction of *Delta IV*- and *Typhoon*-class SSBNs into the Northern Fleet inventory, the area of operations contracted to encompass merely the Barents Sea.[42] Toward the end of the Cold War, the notion of geographically concentrated and smaller bastions grew stronger. In his thesis from 1988, Walter M. Kreitler argues that the Soviet Union would gain from operating in even more confined areas; such "close aboard bastions" would merely encompass Soviet territorial water.[43]

Tracking a Contemporary Northern Fleet Naval Bastion

With the end of the Cold War, the threat of a nuclear war between the superpowers receded. Rather than rendering the concept of naval bastions obsolete, the opposite happened. In fact, the term bastion emerged in Russian military discussions in the late 1990s with the proposal to establish a northern strategic bastion (NSB) based on the Northern Fleet.[44] Ironically, while it is almost certain that this was inspired by Western discourse on the bastion defense concept, the underlying motive was somewhat different. The idea of an NSB was instead likely prompted by Russia's economic hardships, which severely limited defense spending, leading to a concentration of resources in one location, specifically the Kola Peninsula.[45] This in turn lowered the priority of the SSBN naval base on Kamchatka. However, these ideas never fully materialized, and the SSBN base on Kamchatka remained.

Because of the Russian NSB project in the 1990s, the notion of the bastion defense concept has remained strong in Nordic security considerations, and practically no text concerning, or even briefly touching on, geopolitics in the Western Arctic can avoid referencing the concept. In 2024, the Norwegian Intelligence Service's annual open threat and risk assessment highlighted the centrality of the bastion strategy in Russian security perceptions, a view later reaffirmed in the publication of the *Norwegian Defence Pledge* later that same year.[46] Similar wording appears in the Swedish Defence Commission's 2023 report on security policy, which refers to the significance of a Russian

bastion threat for Norway's military planning.[47] The report also independently states that naval bastions are crucial for Russia's preservation of its nuclear second-strike regime.[48]

This section examines whether it is feasible to assume that contemporary Russia is pursuing a bastion defense concept in the European high north. The analysis is structured around the three assumptions that form the essence of McConnell's interpretation of Admiral Gorskhov and thereby the basis of the bastion defense concept. The first of the three assumptions is that Russia's disadvantaged military geography makes SSBN operations close to home waters favorable. The second is the role of the Russian SSBNs in ensuring the second or third nuclear-strike capability. The third is that the main mission of the naval general-purpose forces is to ensure the survival of the SSBNs. Any evidence that either supports or contradicts these claims is the focus, as it either reinforces or refutes the hypothesis that contemporary Russia is pursuing a bastion defense strategy in northern Europe.

A Disadvantaged Russian Military Geography

The dissolution of the Soviet Union changed Moscow's geography. From a naval perspective, significant geostrategic changes occurred exclusively in the Baltic and Black Seas. Similarly, recent Russian territorial expansion has primarily affected the Black Sea region, including control over Abkhazia since 2008, the annexation of Crimea in 2014, and, since 2022, control over the Azov Sea. Hence, with practically no geographical changes in either northwest Russia or the Russian Far East, it is reasonable to assume the continuity of a Russian bastion strategy in the European high north and Russia's Far East.

However, beyond the redrawing of borders, this author argues that there are other military-geographical shifts of wider significance that require a reassessment of what a disadvantaged Russian military geography in the European high north really means. Most importantly, a more navigable Arctic Ocean will have an enormous geopolitical significance for Russia, but there are also other changes to consider, including Finland and Sweden's accession to NATO and the bleaker outlook of repeating the West's successful Cold War barrier strategy against Soviet submarines in the GIUK gap.

The effects of global warming on the circumpolar regions are proceeding faster than in any other region of the world.[49] A growing body of literature suggests that a warmer climate could soon radically alter the conditions for Arctic navigation at a pace much faster than suggested by earlier projections.[50] From a naval security perspective, an Arctic with ice-free summers would drastically change the geopolitical significance of the Arctic region. On the one hand, stretching more than one-half of the total Arctic Ocean's coastline and controlling several geopolitically important archipelagos, Russia has a unique

opportunity to shape future geopolitics in the Arctic, particularly along the Northern Sea Route (NSR). On the other, with a warmer climate, the natural shielding "barrier" of ice will offer less protection as the sea ice coverage recedes.[51] Thus, to Russia, a more navigable Arctic Ocean and its marginal seas will present opportunities and liabilities and consequently will affect its naval second-strike capabilities and its general-purpose naval forces.

If it is not in control of the NSR, Russia fears that adversaries could use the Arctic marginal seas to conduct a massive and unanticipated precision-strike campaign, as NATO's superior capabilities could potentially cripple Russia, politically and militarily, without having to resort to nuclear weapons. The former Russian Navy CINC accentuated this concern during an interview in 2024.[52] This is also habitually touched on in Russian doctrinal and strategic planning documents.[53] In an article from May 2023, the former Russian Navy CINC described how Western naval forces operating in waters close to Russia can quadruple at short notice. According to his assessment, NATO can amass more than 130 surface combatants and submarines, collectively carrying nearly 3,000 high-precision missiles in sea regions close to Russia, of which approximately 50 naval vessels, carrying 1,000–1,100 missiles, would appear in the Norwegian and Barents Seas.[54]

Another military-geographical change that certainly affects Russian considerations of its wartime strategies in the high north is Finland and Sweden's accession to NATO in 2023 and 2024, respectively. Russia reacted to Sweden joining NATO in 2024 by threatening that Moscow would adopt "military-technical" measures in response.[55] Besides being a threat, it was also a way of showing disapproval, as it increased the exposure of Russia's military assets on the Kola Peninsula. While it surely complicates the protection and support that Russian SSBNs can get from assets ashore on the Kola Peninsula, it does not necessarily mean that it renders a bastion strategy impossible. Throughout the Cold War, Moscow had to deal with the Norwegian border, which was less than 60 kilometers away from the closest Soviet nuclear submarine base. However, the common Cold War scenario of early Soviet offensive actions against Norway seems more unlikely. Moscow now has to consider the permanent forces of not one but three NATO states and occupy a much larger portion of northern Scandinavia to create a buffer zone between the Kola Peninsula and NATO territory.

A third theme, which relates not only to military-technological development but also has clear military-geographical implications, is the bleaker outlook of repeating the West's successful Cold War barrier strategy against Soviet submarines in the GIUK gap. From the 1960s until the end of the Cold War, the submarines of the U.S. Navy enjoyed a continuous advantage over Soviet submarines in the North Atlantic due to generally louder Soviet submarines

and the establishment of a sound surveillance system (SOSUS) for detecting submarines in choke points.[56] Indeed, this successful Western barrier strategy against Soviet forces might even have contributed to compelling the Soviet Navy to pursue a bastion defense strategy. However, toward the end of the Cold War, the Soviet Union had largely managed to achieve "acoustic parity" with the introduction of truly silent nuclear submarines. Thus, the NATO effort to maintain an ASW barrier was saved at the last moment when the Soviet Union collapsed.[57] Hence, modern Russian submarines might have a considerably better chance at evading detection in the GIUK than their Soviet predecessors.

In summary, considering the changing geopolitical situation for Russia in the high north, it is no longer obvious that operating close to home port offers the greatest chance of survival for Russian SSBNs. With two additional NATO allies on the Scandinavian Peninsula, it may not be possible to support wartime SSBN operations in the Barents Sea from ashore in the same way as before. In comparison to the Cold War, the military-geographical conditions for Russian circumpolar naval operations now seem more beneficial, while the Kola Peninsula is likely more vulnerable. Hence, given Russia's current situation in the high north, ensuring the survival of Russian SSBNs seems to be better served by dispersing into the world's oceans, particularly the marginal seas of the Arctic Ocean, than lingering in the waters close to the Kola Peninsula.

Role of the Russian SSBN

A central assumption of the bastion defense concept is that during an initial nuclear exchange, the SLBMs of the SSBNs are withheld. This section examines the current standing of the SSBNs in Russian nuclear deterrence, with a particular emphasis on their role as a strategic nuclear reserve.

The number of SSBNs in Moscow's inventory has declined considerably since the Cold War. While the total has dropped from 48 in 1990 to 12 in 2024, SLBMs continue to constitute one-third of the strategic nuclear delivery vehicles in Russia's nuclear arsenal.[58] A smaller number of SSBNs could, indeed, influence tactical considerations, as it increases both the difficulty and the payoff of detection.[59] But the decline in the number of Russian SSBNs has stopped, and the rationale for pursuing the bastion defense concept likely does not ultimately depend on inventory size.

Russia began to modernize its inventory of SSBNs in the mid-1990s, but because of a lack of finances and problems with the development of the new RSM-56 Bulava SLBM, Russia finally commissioned the first hull of the *Borei*-class SSBNs in 2012—after 16 years of construction. Since then, the Sevmash shipyard has completed six more hulls, with another three in various stages of construction.[60] In November 2023, then-Defense Minister Sergei Shoigu presented a naval plan for the years 2019–25 in which he declared the moderniza-

tion of the SSBN inventory a priority.[61] Discussions about the fifth generation of Russian SSBNs have already begun. A concept called Arktur, presented at the Russian arms expo Armiia-2023, showcased a smaller platform with fewer ballistic missiles, instead allocating space for autonomous underwater vehicles.[62] Thus, SSBNs will most certainly continue to play a role in Russian nuclear deterrence into the 2040 and 2050s.

It should be noted, however, that it is the modernization of the Pacific Fleet SSBN inventory that has gone furthest, with five *Borei*-class SSBNs commissioned against the two that have so far been handed over to the Northern Fleet. It is nevertheless likely that the Northern Fleet SSBN inventory will reach parity in the coming five years, as the next three *Borei*-class hulls are destined to replace some of the older Northern Fleet *Delta IV*-class hulls.[63] This is unusual, as the Northern Fleet was habitually given priority during the Cold War and shows that the primacy of the Northern Fleet SSBNs should not be taken for granted.[64]

While Moscow's SSBN inventory has transformed substantially since the Cold War, technological advances have had the greatest impact on its role. The introduction of intercontinental delivery systems in the mid-1970s was a key technological enabler for the Soviet bastion, and since then there have been additional technological advances with the potential to reinforce, challenge, or modify the rationale for a strategy to withhold SSBNs. In their 1992 report, Tønne Huitfeldt, Tomas Ries, and Gunvald Øyna list 11 significant technological advancements affecting strategic nuclear-delivery vehicles, 2 of which directly concern SSBNs. These are the development of under-ice capabilities for submarines and the introduction in the late 1980s of mobile ICBMs.[65]

The commissioning of first the *Typhoon*- and then the *Delta IV*-class SSBNs, with substantial under-ice capabilities in the early 1980s, provided new opportunities for covert SSBN deployments in the Arctic. Consequently, Soviet SSBN operations shifted eastward, leaving the Greenland Sea where U.S. SOSUS arrays could easily detect and track them, and instead focused on Barents Sea deployments.[66] This shift both improved and reduced how general-purpose forces could support SSBN operations. While general-purpose forces could assist SSBNs in disappearing into the Barents Sea, SSBNs became unsupported during under-ice operations.

A technical innovation with the potential to challenge the bastion strategy was the introduction of mobile ICBMs—rail-based or wheeled—in the late 1980s.[67] This posed a challenge to the SSBN's withholding role. Even though their mobility does not provide the same level of survivability as SSBNs, mobile ICBMs are cheaper to build and operate while offering greater opportunity for dispersal over vast areas. By 2024, more than one-half of Russia's ICBMs were road-mobile systems.[68] As noted earlier, in terms of the number of stra-

tegic nuclear-delivery vehicles, the navy's SLBMs accounted for approximately one-third during the latter part of the Cold War (1975–90), which is roughly the same as in 2024.[69] Thus, the road-mobile ICBM systems have clearly not replaced SSBNs to this day, but rather serve as a complement. However, to mitigate risk, it is likely that a portion of Russia's road-mobile ICBMs are also considered part of the strategic reserve and withheld in an initial nuclear exchange.[70]

The rationality of Russia's adherence to the bastion defense concept does not solely rest on their technological developments but also on reactions to other events. Since the U.S. withdrawal from the Anti-Ballistic Missile (ABM) Treaty in 2002, Russia has loudly criticized the United States for potentially undermining the nuclear strategic balance.[71] The general view in the Kremlin seems to be that while Russia and the United States are currently on par in terms of nuclear arsenals, even the slightest doubt about Russia's capability to inflict unacceptable damage during a retaliatory strike could alter the balance. To counter this, Russia has striven to "increase its strike potential" by developing new strategic nuclear-capable weapons intended to overcome ABM defenses.[72] Hence, Russia's response to the U.S. missile-defense program has mainly been to develop new, asymmetrical capabilities for maintaining a credible deterrence regime, rather than pursuing a comprehensive ABM defense program of its own.

At the annual presidential address to the Federal Assembly in 2018, President Vladimir Putin displayed a range of new strategic weaponry developed for the sole purpose of countering American ABM capabilities.[73] The weapon systems included modern iterations of existing capabilities, such as the RS-28 Sarmat ICBM, and entirely new capabilities. Among them is the Poseidon, an intercontinental, nuclear-powered, nuclear-armed autonomous torpedo, launched from special-purpose nuclear submarines similar in size to SSBNs, one of which has been commissioned while another is in its final stage of construction.[74] This development of a new, strategic naval nuclear deterrent capability calls into question the feasibility of a contemporary bastion strategy. In comparison to SLBMs, which can be launched from practically any location, these torpedoes, despite their long range, are likely less versatile and require their carriers to reach launch areas situated closer to the target. With high-value naval groups or coastal infrastructure as their main targets, it is also likely that these nuclear-tipped torpedoes are intended for usage in the earlier stages of a nuclear conflict rather than being held in reserve. It should also be noted that the two submarines carrying the Poseidon torpedo are likely to be based in Kamchatka, which somewhat increases the peninsula's strategic importance relative to Kola in terms of nuclear deterrence.[75]

To sum up, while the SSBN remains an indispensable part of Russia's

nuclear deterrent, new military technology has been and continues to be reshaping the SLBM's standing among other nuclear weapons delivery systems. Under-ice capabilities had already expanded the patrol areas of SSBNs during the 1980s, but in a way that aligned reasonably well with the bastion concept. The shift in the Strategic Rocket Forces' inventory from predominantly silo-based to road-mobile ICBMs has also presented Russia with an alternative to SSBNs in its strategic nuclear reserve. Although road-mobile ICBMs lack the submarine's unique ability for covert deployment, they are at the same time cheaper to produce and operate and are more easily dispersed.[76] Particularly challenging to a bastion-centric role for Russian SSBNs is the introduction of strategic nuclear submarines with alternative means of delivering nuclear warheads for two reasons. First, positioning is likely more critical when firing a nuclear-tipped torpedo than when launching an SLBM. Thus, its tactics likely differ substantially from those of SSBNs and do not naturally align with the bastion defense concept. Second, and relatedly, more forward-leaning posturing and tactics likely makes these submarines more suitable for early participation during a nuclear exchange or for second-strike missions rather than for a third-strike role.

The Role of the General-Purpose Forces

Two recurring themes in the portrayal of Russia's ongoing naval modernization are, first, Russia's emphasis on building predominantly small warships and, second, equipping them with long-range missile systems. Liv Karin Parnemo concludes that Russia is essentially building a coastal defense navy—primarily submarines and small ships with standoff capabilities.[77] Ina Holst-Pederson Kvam makes a similar argument when she contends that what characterizes Russian naval development is the emergence of a "mosquito-fleet" with long-range precision-strike missiles for coastal-defense purposes.[78] Michael Kofman agrees with this image and describes it as the emergence of a Russian "green-water" navy and, similar to the reasoning of Holst-Pedersen Kvam, emphasizes that standoff capabilities provide the general-purpose forces a new role in non-nuclear deterrence.[79]

How this novel fleet composition fits with the bastion defense concept presents a mixed picture.[80] On the one hand, with a naval force limited in number and ship size, concentrating forces to achieve sea control in the littoral region around the Kola Peninsula is in line with the bastion tradition, as it offers a relatively safe area of operations for its SSBNs. In addition, from there, the Northern Fleet could employ its sea denial capabilities, using long-range missiles to deter approaches by NATO warships.[81] On the other hand, there are indications that the operations of the general-purpose forces have become increasingly disconnected from SSBN operations. Two examples illustrate this:

first, the introduction of non-nuclear deterrence in Russian operational thinking, and second, the Northern Fleet's increasing Arctic orientation.

Western development and dominance in conventional precision-strike capabilities have long been a recurring theme in the Russian military debate. However, in contrast to Russia's asymmetrical response to U.S. ambitions in missile defense, Russia has sought to develop a non-nuclear deterrence capability based on long-range precision-guided missiles of its own.[82] With the recent commissioning of predominantly small platforms equipped with Kalibr land-attack systems, the navy now holds a substantial share of Russia's overall precision-strike capability. During his opening speech at the Moscow Conference on International Security in 2021, the Russian chief of the General Staff underscored the significance of non-nuclear deterrence in Russian strategy and stressed that the rapid development of precision weapons is blurring the lines between nuclear and non-nuclear weapons.[83] Also notable is that the 2010 and 2014 iterations of Russian military doctrine equate non-nuclear deterrence with nuclear deterrence.[84] Hence, the sharp distinction that, according to McConnell, Admiral Gorshkov made between naval forces for deterrence and warfighting is less relevant today, as general-purpose forces now also carry a substantial deterrence mission. The increased emphasis on long-range precision missile strikes has come at the expense of capabilities relevant to a pro-SSBN mission.[85]

Since 2012, Russia began to increase its permanent military presence in the Arctic region, primarily through the construction of permanent Arctic military bases and modernization of military airfields. At approximately the same time, the Russian Ministry of Defence also ordered a relatively large number of ships adapted for Arctic conditions. This included icebreakers, Arctic patrol ships, and logistics-support ships with ice-strengthened hulls.[86] During 2021–25, four new *Severodvinsk*-class nuclear-powered guided-missile submarines (SSGN) were commissioned. As the first Russian non-SSBN class of nuclear-powered submarines with under-ice capabilities, this opens up new possibilities for Russian under-ice operations.[87] In a September 2024 article, the Russian Navy CINC established that the navy needed to construct basing facilities for its ships in the central parts of the Arctic, along the NSR.[88] Thus, although the Soviet Union occasionally also had a military presence in the Arctic, a major shift is that its purpose is unprecedented in its ambition to not only project military power *from* but also *in* the Arctic.[89] This development is slowly shifting the center of gravity of the Northern Fleet eastward by dispersing its infrastructure across Russia's Arctic territories and designing capabilities for Arctic operations.

In sum, although recent trends in the composition of the Russian naval general-purpose forces are seemingly in line with the tradition of the bastion defense concept, there are also tendencies pointing in other directions. Considering the current emphasis in the Russian Navy on the non-nuclear deterrence

mission and the fleet's overall smaller size, Russia's naval general-purpose forces are likely less capable of pursuing a pro-SSBN mission. While the eastward dispersion of Northern Fleet capabilities supposedly does improve the conditions for supporting SSBN operations in the Arctic marginal seas, the process may dilute the concentration of capabilities on the Kola Peninsula to safeguard SSBN operations, as prescribed by Admiral Gorshkov.

Conclusions

During the 1980s, there was near consensus that the bastion defense concept was an accurate approximation of the Soviet Union's wartime naval strategy. Although the Cold War ended in 1991, the need for military planners to anticipate adversaries' strategies has not diminished; rather, it has intensified. Given current geopolitical tensions, marked by nuclear sabre-rattling and Western-Russian relations at a historic low, the parallels to the Cold War are notable. Consequently, the bastion defense concept is once again being used to describe Russian naval strategy in the high north, but there is a risk that its continued reliance is driven more by analytical convenience than by analytical accuracy.

This article argues that it is becoming increasingly problematic to assume that the bastion defense concept remains a valid approximation of Moscow's wartime naval strategy in the high north. While the notion of a Russian bastion defense concept remains prominent in Western debates, Moscow is gradually adjusting its wartime naval strategies in response to evolving military-geographical and military-technological conditions. The gradual yet consistent nature of this shift becomes evident when examining how these changes contradict central assumptions underpinning the bastion defense concept.

A vital tenet of the bastion defense concept is that it represents a deliberate naval adaptation to Moscow's disadvantaged military-geographical situation. By concentrating forces in the proximity of the Kola Peninsula, Moscow's strategic nuclear reserve, in the form of Northern Fleet SSBNs, would benefit from dual protection from both land- and sea-based forces. While the outlook for safeguarding SSBN operations from the Kola Peninsula has worsened due to Finland and Sweden's accession to NATO, climate change is making Arctic waters increasingly accessible for navigation.

Indeed, a reasonable conclusion would be that a more accessible Arctic would merely shift the center of gravity of the bastion defense eastward. However, this overlooks the fact that the roles of the Russian Navy in strategic deterrence and warfighting are also evolving. While SSBNs still play a crucial role in Russia's nuclear deterrence, the naval leg of Russia's nuclear triad no longer constitutes the country's sole strategic nuclear reserve, and some new naval nuclear capabilities are likely designed for early participation in a nuclear conflict.

Similarly, emerging roles in non-nuclear deterrence are further disconnecting the wartime function of general-purpose forces from SSBN operations. Instead of concentrating forces to safeguard SSBN operations within a confined ocean region, the Russian Navy's increasing Arctic orientation is leading to a dispersion of forces across the Arctic marginal seas.

While naval bases on the northern side of the Kola Peninsula will remain the primary locations from which Russia projects peacetime naval power on a global scale, it is increasingly unlikely that the Kola Peninsula would serve as the hub of a wartime Russian bastion defense strategy. Military planners in Nordic countries should take this factor into account. Similarly, military planners in leading Western naval powers must increasingly consider wartime scenarios in which the Russia Navy enjoys wartime sea control across a substantial part of the Arctic Ocean.

Endnotes

1. Jan S. Breemer, "The Soviet Navy's SSBN Bastions: Evidence, Inference, and Alternative Scenarios," *RUSI Journal* 130, no. 1 (1985): 18, https://doi.org/10.1080/03071848508522717; and Walter M. Kreitler, "The Close Aboard Bastion: A Soviet Ballistic Missile Submarine Deployment Strategy" (master's thesis, Naval Postgraduate School, 1988), 16.
2. *Second strike* refers to the ability to conduct a retaliatory strike, while the *third strike* mission involves surviving both the initial nuclear exchange as well as a protracted period of war.
3. Jessica Montgomery Huckabey, "Sea Power Rivalry: The Influence of Admiral Gorshkov on American Naval Thought, 1963–1985" (PhD thesis, University of Leeds, 2018).
4. See, for example, N. Bradford Dismukes, *Hidden in Plain Sight: CNA and the Soviet Navy* (Arlington, VA: CNA, 2018), 11–16.
5. In 1948–50, the Soviet Union built more than 50 submarines per year. See Mark Carlson, "The Explosion that Built the Soviet Navy," *Naval History*, December 2023; in the 1960s, it annually built 15 nuclear submarines, whereas the United States built 8. Huckabey, "Sea Power Rivalry," 61.
6. Owen R. Cote, *The Third Battle: Innovation in the U.S. Navy's Silent Cold War Struggle with Soviet Submarines* (Newport, RI: Naval War College, 2003), 3.
7. Cote, *The Third Battle*, 1–12.
8. The other two were the deployment of land-based missiles within target range of the continental United States, exemplified by the 1962 Cuban Missile Crisis, and the forward deployment of long-range bombers to Arctic airbases from which they could reach their targets by flying over the North Pole. See Tønne Huitfeldt, Tomas Ries, Gunvald Øyna, *Strategic Interests in the Arctic* (Oslo: Institutt for forsvarsstudier, 1992), 80–82.
9. Huckabey, "Sea Power Rivalry," 19–45; and J. S. Breemer, "Rethinking the Soviet Navy," *Naval War College Review* 34, no. 1 (1981): 4.
10. "Navies in War and Peace" is also the headline under which the Soviet CINC published his article series.
11. Stephen M. Walt, *Analysts in War and Peace: MccGwire, McConnell, and Admiral Gorshkov*, Professional Paper 458 (Arlington, VA: CNA, 1987); and Robert G. Weinland et al., "Admiral Gorshkov's 'Navies in War and Peace'," *Survival* 17, no. 2 (1975): 54–63, https://doi.org/10.1080/00396337508441532; and Huckabey, "Sea Power Rivalry," 95.

12. James M. McConnell, "Gorshkov's Doctrine of Coercive Naval Diplomacy in both Peace and War," in Robert G. Weinland, Michael K. MccGwire, and James M. McConnell, *Admiral Gorshkov on "Navies in War and Peace"* (Arlington, VA: CNA, 1974), 108; Robert G. Weinland, " 'Navies in War and Peace': Content, Context, and Significance," in *Admiral Gorshkov on "Navies in War and Peace*," 15; and Weinland et al., "Admiral Gorshkov's 'Navies in War and Peace'," 62.
13. The United Kingdom, for example, sharply reduced its naval activity in 1967; see James M. McConnell, "Doctrine and Capabilities," in *Soviet Naval Diplomacy*, ed. Bradford Dismukes and James M. McConnell (New York: Pergamon Press, 1979), 1.
14. See, for example, McConnell, "Doctrine and Capabilities"; or Robert G. Weinland, *Soviet Strategy and the Objectives of Their Naval Presence in the Mediterranean*, Professional Paper 410 (Arlington, VA: CNA, 1982), 5.
15. In a light-hearted recollection, Bradford Dismukes, one of the active participants in the analysis of the Gorshkov series in the early 1970s, describes the skepticism and resistance that met CNA. See Dismukes, *Hidden in Plain Sight*, 20.
16. McConnell, "Gorshkov's Doctrine," 71–116.
17. McConnell uses military-geographical reasoning in numerous places to support his view. See McConnell, "Gorshkov's Doctrine," 72, 80, 83, 85, 89, 96, 106.
18. McConnell, "Gorshkov's Doctrine," 83.
19. McConnell, "Gorshkov's Doctrine," 105.
20. McConnell, "Gorshkov's Doctrine," 89.
21. McConnell, "Gorshkov's Doctrine," 82.
22. McConnell, "Gorshkov's Doctrine," 72–73.
23. See McConnell, "Gorshkov's Doctrine," 74; and Weinland et al., "Admiral Gorshkov's 'Navies in War and Peace'," 61.
24. The Soviet ICBM arsenal grew quickly during the 1960s, from nearly nonexistent in 1960 to encompassing 44 percent of its strategic nuclear delivery vehicles in 1965 and 74 percent in 1970. See Huitfeldt, Ries, and Oyna, *Strategic Interests in the Arctic*, 98–103.
25. McConnell, "Gorshkov's Doctrine," 81, 94.
26. McConnell, "Gorshkov's Doctrine," 94.
27. McConnell, "Gorshkov's Doctrine," 89.
28. McConnell, "Gorshkov's Doctrine," 73, 105.
29. McConnell, "Gorshkov's Doctrine," 80.
30. McConnell, "Gorshkov's Doctrine," 72, 86.
31. An essay by Stephen M. Walt thoroughly outlines the diverging opinions of James M. McConnell and Michael K. McGwire, both active participants in the debate on Soviet naval strategy in response to the Gorshkov series. See Walt, "Analysts in War and Peace," 1987.
32. Weinland et al., "Admiral Gorshkov's 'Navies in War and Peace'," 58.
33. Despite the fact that McConnell and MccGwire read the Gorshkov series two very different ways, they were in agreement on a Soviet withholding strategy; see Huckabey, "Sea Power Rivalry," 103.
34. Bradford Dismukes, *Roles and Missions of Soviet Naval General Purpose Forces in Wartime: Pro-SSBN Operations*, Professional Paper 130 (Arlington: CNA, 1974), 17. In later works, Dismukes is much less cautious in his conclusions on the existence of a Soviet pro-SSBN mission for its ASW forces; see Dismukes, *Hidden in Plain Sight*, 20, 25.
35. Dismukes, *Hidden in Plain Sight*, 25; Don Boroughs, *The Story of CNA: Civilian Scientists in War and Peace* (Arlington, VA: CNA, 2021), 38; and Kreitler, "The Close Aboard Bastion," 14.
36. Huitfeldt, Ries, and Oyna, *Strategic Interests in the Arctic*, 108.
37. See, for example, Breemer, "The Soviet Navy's SSBN Bastions: Evidence, Inference, and Alternative Scenarios"; and Jan S. Breemer, "The Soviet Navy's SSBN Bastions: New Questions Raised," *RUSI Journal* 132, no. 2 (1987): 39–44, https://doi.org/10.1080/03071848708523165.

38. Breemer, "The Soviet Navy's SSBN Bastions: Evidence, Inference, and Alternative Scenarios," 18.
39. James John Tritten, *Scenarios of Nuclear Escalation Dominance and Vulnerability* (Monterey: Naval Postgraduate School, 1988), 8–9.
40. Kristian Åtland, "The Introduction, Adoption, and Implementation of Russia's 'Northern Strategic Bastion' Concept, 1992–1999," *Journal of Slavic Military Studies* 20, no. 4 (2007): 499–528, https://doi.org/10.1080/13518040701703047.
41. Pavel Podvig et al., ed., *Russian Strategic Nuclear Weapons* [Strategicheskoe Iadernoe Vooruzhenie Rossii] (Moscow: IzdAT, 1998), 230–31.
42. Podvig et al., *Russian Strategic*, 231.
43. Kreitler, "The Close Aboard Bastion."
44. Aleksandr Golts, *Military Reform and Militarism in Russia* (Uppsala, Sweden: Acta Universitatis Upsaliensis, 2017), 57; and Atland, "The Introduction, Adoption, and Implementation," 505–9.
45. According to Aleksandr Golts, the "Northern Strategic Bastion" was primarily a way to direct budgetary cuts toward other parts of the navy, rather than an emphasis on the Northern Fleet. Golts, *Military Reform and Militarism*, 56–57.
46. *Fokus 2024—Etterretningstjenestens vurdering av aktuelle sikkerhetsutfordringar* (Oslo: Norwegian Intelligence Service, 2024), 10; and *Forsvarsløftet—for Norges trygghet* [The Norwegian Defence Pledge, 2025–2036] (Oslo: Norwegian Government, 2024), 14.
47. *Allvarstid:* Försvarsberedningens säkerhetspolitiska rapport 2023 (Stockholm: Swedish Government, 2023).
48. *Allvarstid*, 121, 128.
49. For a study that suggests that the Arctic has warmed nearly four times faster than the rest of the world since 1979, see Mika Rantanen et al., "The Arctic Has Warmed Nearly Four Times Faster than the Globe since 1979," *Communications Earth & Environment* 3, no. 168 (2022), https://doi.org/10.1038/s43247-022-00498-3.
50. Alexandra Jahn, Marika M. Holland, and Jennifer E. Kay, "Projections of an Ice-free Arctic Ocean," *Nature Reviews Earth & Environment* 5 (2024): 164–76, https://doi.org/10.1038/s43017-023-00515-9.
51. Mathieu Boulègue et al., *Up North: Confronting Arctic Insecurity* (Washington, DC: Center for European Policy Analysis, 2024), 5.
52. Yuliya Kozak, "Na zashchite natsionalnykh interesov strany v Mirovom okeane" [On the protection of national interests of the state in the world oceans], *Krasnaia Zvezda* 2 (January 2024): 1, 4.
53. See, for example, paragraph 12d in the 2014 Russian military doctrine (President of Russia, *Voennaia doktrina Rossiiskoi Federatsii* [Military Doctrine of the Russian Federation]), released on 26 December 2014; and paragraph 15 in the 2015 Russian Security Strategy (Presidential Decree, *O Strategii natsionalnoi bezopasnosti Rossiiskoi Federatsii* [About the National Security Strategy of the Russian Federation]), released on 31 December 2015; and paragraph 25b in the 2017 Russian Naval Doctrine (Presidential Decree, *Ob utverzhdenii Osnov gosudarstvennoi politiki Rossiiskoi Federatsii v oblasi voenno-morskoi deiatelnosti na period do 2030 goda* [On approval of the Fundamentals of the State Policy of the Russian Federation in the Field of Naval Activities for the period up to 2030], released on 20 July 2017.
54. Nikolay Yevmenov et al., "Osnovnye tendentsii izmeneniia kharaktera i soderzhaniia voennykh ugroz Rossiiskoi Federatsii s okeanskikh i morskikh napravlenii" [The main trends in the change in the nature and content of military threats to the Russian Federation from ocean and sea directions], *Voennaia Mysl* 5 (2023): 19–25.
55. "Russia Says It Will Take Military-Technical Steps in Response to Sweden's NATO Accession," Reuters, 28 February 2024.
56. In the report *The Third Battle*, Owen R. Cote Jr. tells the story of the cat-and-mouse game of submarines and antisubmarine warfare played throughout the Cold War. See Cote, *The Third Battle*, 41–42, on the SOSUS arrays in the GIUK gap.
57. Cote, *The Third Battle*, 78.

58. Huitfeldt, Ries, and Øyna, *Strategic Interests in the Arctic*, 127; and Hans M. Kristensen et al., "Russian Nuclear Weapons, 2024," *Bulletin of the Atomic Scientists* 80, no. 2 (2024): 119, https://doi.org/10.1080/00963402.2024.2314437.
59. Kreitler, "The Close Aboard Bastion," 77.
60. Roman Volkov and Andrew Brichevsky, "Project 955 Borey," RussianShips.info, 29 January 2025.
61. "V Moskve sostoialos zasedanie Kollegii Minoborony Rossii" [A meeting of the Russian Defense Ministry Board was held in Moscow], Ministry of Defence, 21 November 2023.
62. "V konstruktorskom byuro nazvali sroki poiavleniia v VMF novykh atomykh podlodok" [The design bureau has named the timeframe for the appearance of new nuclear submarines in the Navy], *RIA Novosti*, 21 June 2023.
63. Volkov and Brichevsky, "Project 955 Borey."
64. Huitfeldt, Ries, and Øyna, *Strategic Interests in the Arctic*, 118–19, 127.
65. Huitfeldt, Ries, and Øyna, *Strategic Interests in the Arctic*, 83–84.
66. Pavel Podvig, ed., *Russian Strategic Nuclear Forces* (Cambridge, MA: MIT Press, 2004), 231.
67. Huitfeldt, Ries, and Øyna, *Strategic Interests in the Arctic*, 83–84.
68. Kristensen et al., "Russian Nuclear Weapons, 2024," 119.
69. The data from the Cold War period, found in Huitfeldt, Ries, and Øyna, *Strategic Interests in the Arctic*, 86, includes not only intercontinental SLBMs but also SLBMs of shorter range that were phased out in the 1980s. The data from 2024 is from Kristensen et al., "Russian Nuclear Weapons, 2024," 119.
70. As early as 1988, Walter Kreitler had already described how road-mobile systems "might end the need of a bastion strategy" in Kreitler, "The Close Aboard Bastion," 21–22, 57; opinions vary on whether the introduction of mobile land-based systems have had this effect. Michael Kofman believes that Russia nonetheless pursues a bastion strategy, in "The Role of Nuclear Forces," 32–33, while Robert Dalsjö is more skeptical in "A Contrarian Perspective on the High North," in *Defence and Security: Festschrift in Honour of Tomas Ries*, ed. Magnus Christiansson (Stockholm: Swedish Defence University, 2022), 107–8.
71. Both Russian political and military leaders have expressed this on numerous occasions. For example, see statements by the chief of the General Staff and the commander of the Strategic Rocket Forces; see Yuriy Gavrilov, "Oboima Makarova," *Rossiiskaia Gazeta* 59 (2010); and "Minoborony RF uchityvaet vykhod SShA iz DRSMD pri planirovanii primineniia iadernykh sil" [Russian Defense Ministry takes into account U.S. withdrawal from INF Treaty when planning use of nuclear forces], Tass.com, 16 December 2018.
72. "V Moskve pod rukovodstvom Verkhovnogo Glavnokomandoiushchego Vooruzhennymi Silami Rossii Vladimir Putina proshlo rasshirennoe Kollegii Minoborony" [An expanded meeting of the Defense Ministry Board was held in Moscow under the leadership of the Supreme Commander-in-Chief of the Russian Armed Forces Vladimir Putin], Ministry of Defense, 18 December 2018.
73. "Poslanie Prezidenta Federalnomu Sobraniyu" [Message from the President to the Federal Assembly], President of Russia, 1 March 2018.
74. A. V. Yevsiukov, "Rol novykh sistem strategicheskikh vooruzhenii v obespechenii strategicheskogo sderzhivaniia" [The Role of New Strategic Weapons Systems in Ensuring Strategic Deterrence], *Voennaia Mysl* 12 (2020): 26–30.
75. Anton Lavrov and Aleksey Ramm, "Podrazdeleniia mogut nesti bespilotniki 'Poseidon' " [Units may carry Poseidon drones], *Izvestiia* (Moscow), 20 February 2023.
76. While 16 ballistic missiles are concentrated on one modern Russian SSBN, an equal number of road-mobile ICBMs can be dispersed to 16 different launch sites over a large territory.
77. Liv Karin Parnemo, "Russia's Naval Development—Grand Ambitions and Tactical Pragmatism," *Journal of Slavic Military Studies* 32, no. 1 (2019): 66, https://doi.org/10.1080/13518046.2019.1552678.

78. Ina Holst-Pedersen Kvam, "Nordflåtens evne til kystnær maktprojeksjon. Implikasjoner for Bastionforsvaret" [The Northern Fleet's ability for coastal power projection. Implications for the Bastion Defence], *Necesse* 5 (2020): 22–58.
79. Michael Kofman, "The Role of Nuclear Forces in Russian Maritime Strategy," in *The Future of the Undersea Deterrent: A Global Survey*, ed. Rory Medcalf et al. (Canberra: National Security College, Australian National University, 2020), 33–34; and Holst-Pedersen Kvam, "Nordflåtens evne," 28.
80. It should be noted that Holst-Pedersen Kvam takes a different stance from Parnemo and Kofman on the applicability of the bastion defense concept, though the difference is merely in their definition of *bastions*. While the former envisions a vast bastion with extensive sea-denial capabilities reaching far south into the Norwegian Sea and the GIUK gap, the latter two argue that a defensive posture within a confined littoral area remains consistent with the bastion defense concept.
81. In recent years, Russia's emphasis on equipping warships with long-range missiles has been perceived as a way to deny NATO access. This antiaccess/area-denial (A2/AD) strategy is often linked to the bastion defense concept. See Robert Dalsjö, Chistofer Berglund, and Michael Jonsson, *Bursting the Bubble: Russian A2/AD in the Baltic Sea Region: Capabilities, Countermeasures, and Implications* (Stockholm: Swedish Defence Research Agency, 2019), 15, 26.
82. See Valeriy Akimenko, *Russia and Strategic Non-nuclear Deterrence: Capabilities, Limitations and Challenges* (London: Chatham House, 2021).
83. Marina Shcherbakova, "Segodnia trebuiutsia politicheskaia volia, mudrost i dalnovidnost" [Today, political will, wisdom and foresight are required], *Krasnaia Zvezda*, 25 June 2021.
84. Holst-Pedersen Kvam, "Nordflåtens evne," 27.
85. One telling example is that one of Russia's few remaining ASW destroyers, the *Udaloy*-class *Marshal Shaposhnikov*, was recently modernized and transformed into a missile-carrying frigate. See "Modernizirovannyi fregat 'Marshal Shaposhnikov' vyshel v more dlia zaversheniia zavodskikh khodovykh ispytanii" [The modernized frigate *Marshal Shaposhnikov* went to sea to complete factory sea trials], Russian Ministry of Defence,
86. For a more detailed overview of measures taken to strengthen Russia's military posture in the Arctic, see Jonas Kjellén, "The Russian Northern Fleet and the (Re)militarisation of the Arctic," *Arctic Review on Law and Politics* 13 (2022): 34–52, https://doi.org/10.23865/arctic.v13.3338.
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The Arctic as an Arena for Strategic Competition

Rivalry with Traditional and Irregular Levers of Power on NATO's Northern Flank

Njord Wegge, PhD

Abstract: This article investigates to what degree and through which fields and mechanisms strategic competition today plays out in the Arctic as well as how these questions align with international relations (IR) theory. Using rationalist approaches to the study of IR and the DIME model (diplomatic, informational, military, and economic) to structure the empirical investigation, this article finds that the strategic competition matches perspectives found in realism as well as liberalism. The article points out how states develop strategies to maximize security, wealth, power, and prosperity at the cost of others, while at the same time also identifies empirical evidence supporting liberal perspectives that stresses how unintended consequences of competition can be harnessed through institutions and international law. The competitive environment experienced in today's Arctic increasingly reflects an international society characterized by zero-sum thinking and a dynamic where the constraining role of institutions has diminished.

Keywords: strategic competition; Arctic; international relations theory; diplomatic, informational, military and economic model; DIME

International relations are today characterized by what has been labelled strategic competition. While the great powers are the key players in this competition, it also affects the smaller states and other actors on the interna-

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tional stage. The competition can be viewed as taking place in an international environment where the United States has a less dominant position than it held during the first decades after the end of the Cold War. This is an international arena increasingly characterized by multipolarity, even though the United States and gradually also China stand out as the most powerful actors. In this international climate, the importance of relative gains between states—at the cost of absolute gains—appears to have increased. This more competitive international environment is also reflected in the Arctic, a region of increased strategic importance.

This article investigates how strategic competition between Russia, China, and the West plays out in this northernmost part of the world, a region that geographically binds the European, Asian, and North American landmasses together, but which nevertheless stands out as being more politically divided than has been the case in some time.

When seeking to improve our understanding of how interstate competition plays out in the Arctic—and the consequences this rivalry has for the democratic states in this polar region—this article investigates the following research questions:

1. To what degree and through which fields and mechanisms does strategic competition today play out in the Arctic?
2. Given enhanced strategic competition in the Arctic—also involving nonmilitary levers of power—how does this competition correspond with theories on security, conflict, and competition from existing research within the field of international relations?

To address these questions, this article starts out by connecting the notion of *strategic competition* to international relations (IR) theory. Based on some general assumptions found in IR theory, a conceptual discussion on strategic competition will be put forward. Building on this conceptual outline, an empirical assessment of today's interstate competitive environment in the Arctic will be conducted. The article then displays how IR theory can provide an analytical framework improving understanding of how strategic competition today plays out in the northernmost region of the world. In conclusion, the article makes some reflections on how the Arctic NATO states should respond to the new challenges in the gray zone between peace and war in the north.

With respect to the delimitations of the region under scrutiny, this article applies the most common political characterization of the Arctic, which is defined as the area to the north of the Arctic Circle. This is the region north of the 66° 33'parallel north, where the sun never sets during the longest day of the summer, and similarly, never rises during the shortest day during winter, when observed at sea level.

Analytical Framework

The Idea of Competition in International Relations

Viewing the international system as an arena where competition between states prevails has a long tradition in the study of international relations (IR). With the two main rationalist approaches to IR—realism and liberalism—competition is assumed to be a basic feature of interstate interaction. These are approaches that, with some individual differences, assume that states develop more or less rational strategies to maximize goods such as security, power, wealth, and prosperity. This dynamic plays out in an interstate environment often described as an international anarchy.[1] However, while no supreme international "world government" exists, this anarchy is not equal to chaos but is rather structured by the states' power capabilities and self-interests, as well as norms, international regimes, and laws.

Nevertheless, the two theoretical traditions that can be put under the umbrella of rationalist approaches—*realism* and *liberalism*—make quite different assumptions regarding the degree to which, and how, states can avoid or manage the risk of war. Differences are visible in issues such as in the view of the potential for states to learn to over time (e.g., to solve common problems) or the degree to which economic interdependence might lead utility-seeking state actors to solve conflicts by means other than war.[2]

The analytical roots of realism are often traced back to the Greek historian Thucydides and his assessment of the underlying causes of the Peloponnesian War (431–404 BCE).[3] As Thucydides in his account of the conflict tries to go beyond the apparent clashes of interest between Athens and Sparta, he points to the "real reasons" for the conflict, namely the fear of the opposite state's growing power relative to one's own.[4] During the twentieth century, realism gradually became the dominant theory of IR, reflecting the analytical fallout of the breakdown of the League of Nations, the lead-up to and devastation of World War II, as well as the tense security climate during the Cold War. Since becoming one of the key approaches to the study of international relations, the realist tradition's focus on military security has been paramount.

Liberal approaches, conversely, often trace their roots to the European Enlightenment and philosophers like Imanuel Kant or John Locke, displaying faith in human reason and potential for human progress.[5] With liberal approaches, the potential of learning to cooperate, for example, by creating institutions, norms, and laws, combined with creating systems where self-interested behavior can be harnessed, stands out as a key belief.[6] In this view, competition does not by default lead states to go to war, as features such as economic interdependence might be mechanisms tying states together, moderating the security risks following the international anarchy.

When viewing rationalism as diverse while still united in its ontology and epistemology, one can point out how realists see a world where states care most about their gains relative to other states. Conversely, liberal scholars see a dynamic in international relations where states care most about their absolute gains, tolerating outcomes where other states win more.[7]

This article uses a rationalist understanding of international relations, an understanding of the international system informed both by realism and liberalism. This approach allows for a nuanced picture when seeking to understand strategic competition, war, and peace.

Strategic Competition

Strategic competition is a term prominent in descriptions of the dynamics in today's international relations. However, the term is not always accurately defined in a precise fashion. When seeking to define the twin concept, *strategic competition*, a logical start is to address the first part of the term—*strategic*. This notion essentially refers to the level at which the competition takes place. In this respect, the strategic level can on the one side be characterized as an elevated, if not the highest, level of command, which also includes the political realm. This is the level where national planning and decision-making are done to reach what can be considered the most important combined national interest. The notion hence relates to the overall control of the course of military or political events within a state.[8]

The second part of the term—*competition*—refers to a race or rivalry for gain. This is a term that, when pertaining to relationships between states in the international system, most often relates to what can be characterized as a contesting relationship other than war, but where the characteristics and intentions of the race nevertheless can take different forms along a conflict continuum. In the *Competition Continuum* (Joint Doctrine Note 1-19), competition is described as "a fundamental aspect of international relations. As states and nonstate actors seek to protect and advance their own interests, they continually compete for diplomatic, economic, and strategic advantage."[9] Such a view of competition reflects a rationalist view of interstate relations as given by realist and liberal approaches to IR: "the competition continuum describes a world of enduring competition conducted through a mixture of cooperation, competition below armed conflict, and armed conflict."[10]

When fusing the two terms *strategic* and *competition*, the U.S. Joint Chiefs of Staff define the combined concept as follows: "Strategic competition is a persistent and long-term struggle that occurs between two or more adversaries seeking to pursue incompatible interests without necessarily engaging in armed conflict with each other."[11] The concept document, *Joint Concept for Competing*,

of 10 February 2023, also specifies that strategic competition, as defined above, should not include "normal and peaceful competition among allies, strategic partners and other international actors who are not potentially hostile."[12]

While the Joint Chiefs of Staff in their outline of the concepts are "adversary agnostic," specifically stating that adversaries competing with the United States do not need to be great powers, there is little doubt that primarily China, but also Russia, are put forward as the most prominent strategic competitors.[13] This is also an understanding found in the previous U.S. *National Security Strategy* (NSS), but with one key linguistic difference, in that the strategic competition was instead labelled a long-term rivalry between powers on the global stage.[14]

This article applies the Joint Chiefs of Staff's understanding of strategic competition when referring to this type of competition in the Arctic, where the phenomena implies the pursuit of incompatible interests among adversaries, hence not including "normal and peaceful competition among allies."[15]

As strategic competition can play out in the *military* as well as in the *non-military* domains, this article addresses the phenomena in a comprehensive way, including both capability development in the armed forces as well as competition within aspects of civil society.

Empirical Investigation: Strategic Competition in the Arctic

In President Joseph R. Biden's 2022 *National Security Strategy*, as well as the *National Defense Strategy* (NDS), Russia is stated to pose an "acute threat" to its European neighbors as well as to the U.S. homeland.[16] China, on the other hand, is characterized as a "pacing challenge":[17]

> Russia and the PRC pose different challenges. Russia poses an immediate threat to the free and open international system, recklessly flouting the basic laws of the international order today, as its brutal war of aggression against Ukraine has shown. The PRC, by contrast, is the only competitor with both the intent to reshape the international order and, increasingly, the economic, diplomatic, military, and technological power to advance that objective.[18]

The statement from the NSS pertains to the global security landscape characterizing international relations during the twenty-first century, reflecting Russia's full-scale war on Ukraine and China's increasingly global ambitions. This more competitive and grave security situation is today also found in the Arctic, a region that for a long period has been characterized by low tension.

When seeking to assess the fields in which the assumed strategic competition plays out today in the Arctic, the DIME model (diplomatic, informational,

military and economic) stands out as a relevant model structuring the investigation.[19] The DIME spectrum can hence help to identify different sides and facets of the ongoing competition, including irregular instruments of power, giving a holistic approach to the investigation.[20]

Diplomatic

The Arctic has, since the end of the Cold War, been known to security scholars and politicians as a region of rather low tension.[21] This situation has prevailed in spite of the region's strategic importance and the fact that it is home to some of the most capable military forces globally (e.g., Russia's military complex on the Kola Peninsula), which directly borders the NATO country Norway.[22]

The "high north—low tension" slogan has been a reflection of this diplomatic situation, where intergovernmental forums and cooperative bodies such as the Arctic Council, the Barents Euro-Arctic Council (BEAC), and the Arctic Coast Guard Forum (ACGF) have promoted contact, cooperation, and dialogue across borders.[23] This situation has made the Arctic a region where diplomacy and cross-border contact have progressed, a dynamic not unlike the liberalist interpretations of international relations, where the binding effects of institutionalized cooperation is emphasized.[24] In addition, as issues of military security have been specifically excluded in the funding document of the Arctic Council, this high-level intergovernmental forum has thrived as a body where East–West dialogue on issues such as science cooperation, work on sustainability in the Arctic, or initiatives ensuring the well-being of indigenous peoples have flourished.[25]

With Russia's annexation of Crimea in 2014, the diplomatic tone quickly shifted, reducing international cooperation in the region. With the change, rivalry and strategic competition quickly gained the upper hand.[26] Following the 2022 Ukraine invasion, the development continued with a near-full freeze of circumpolar Arctic diplomacy between Russia and the seven other Arctic states.[27] Neither the Arctic Council, BEAC, nor the ACGF currently function as a consequence of the full-scale war on Ukraine. As the notion of Arctic exceptionalism has been debunked, descriptions of the political order in the Arctic can be interpreted to have become more in line with the realist understanding of international relations.[28] This is a situation where relative gains are becoming more important, where the balance of power creates an international structure that put limits to state actions, and where most sectors of governmental, as well as commercial, activities are interpreted to have a competitive security element.

Following the breakdown in circumpolar diplomacy, we can now see strategic competition through two competitive blocs in the Arctic. These blocs are led by the United States on the one side, and by a weakened Russia—increasingly dependent on China—on the other side. The western Arctic states have

also deepened their security cooperation, not the least illustrated by Sweden and Finland joining NATO. With the two Nordic states joining the military defense alliance, institutionalized security and defense cooperation in the high north has been strengthened, representing a key diplomatic tool in the security competition playing out in the Arctic.[29] With the second Donald J. Trump administration taking office in early 2025, one can observe new tensions within the western bloc, particularly related to the diplomacy on how to end the Ukraine war and restated demands for Europe to increasingly be responsible for its own security.

While the western and eastern blocs stand out as clear competitors, it should be noted that the Trump administration's mixed messages on territorial ambitions, versus some of its old NATO allies—Denmark and Canada—have shaken the western bloc.[30] The Russian-Sino bloc should also be described as unbalanced in their Arctic cooperation. While Russia and China are united in an anti-Western, authoritarian vision of governance, its internal dynamic can be interpreted as stressed, reflecting geographic absolutes, where China is dependent on Russia with respect to reliable access to the Arctic and natural resources from the region, while Russia is increasingly dependent on China's monetary and industrial capacity and strength.[31]

There are also strong indications of Russia currently exploring how to develop new alliances in the Arctic, seeking to include new non-Western states, carrying the logistical burden in new partnerships in its northern diplomacy. Russia has as an example reached out to all the BRICS countries (Brazil, Russia, India, China, and South Africa, plus five new members) in its adjusted Arctic diplomacy.[32] These efforts suggest competitive attempts to dam up and challenge Western dominance over Arctic governance, political agenda setting, and research activities in the region.[33]

Russia's attempt to establish an Arctic science center at Svalbard, inviting states such as China, Brazil, India, Turkey, and Thailand is also illustrative.[34] Another example of the change in which Russia is redefining its role as a balancing, anti-Western Arctic power, is the newly agreed memorandum of understanding with China on coast guard cooperation in the Arctic.[35] Held together, the political order of the Arctic continues to be complex, displaying features relevant to both realism and liberalism, where a search for relative gains might characterize the competitive behavior between the two blocs, while the intra-bloc dynamic rather might reflect the search for absolute rewards.

Informational

The information domain has emerged as a key arena of competition between hostile actors during the twenty-first century. Research has documented that false news tends to spread faster than authentic news, making this tool of influ-

ence attractive.[36] The challenging situation experienced in the global information domain is reinforced by the low cost of making and distributing false or manipulative news, compared to most other instruments of power.[37] This situation has in many cases made false, misleading, and manipulative information the preferred tool for hostile actors seeking to reach relative gains over an opponent. Not surprisingly, the cost efficiency of using information has been identified as a key instrument of power in what has been labeled hybrid warfare.[38]

There are several areas where hostile influence activities in the Arctic have been identified. It is, particularly, Russian proxy actors that have been active in this regard, spreading directly false narratives, while other news reports or campaigns tend to exploit existing tension or potential conflicts, aiming to amplify distrust and division. Examples of the former include the following fictional story concerning the Svalbard archipelago, where the narrative of a "secret agreement allowing the United States to build a military facility with a biological laboratory at Bear Island" was spread through pro-Kremlin outlets and put forward by authoritative individuals in the Russian science community.[39] Examples of the latter includes more subtle approaches, for example, where various false claims related to issues such as the Norwegian governance of Svalbard and breach of the Svalbard Treaty, or the use of "memory policy," where the combined Norwegian–Russian fight against the Nazis during World War II has been used, as the basis for spreading pro-Kremlin agendas.[40,]

Other illustrative examples of influence campaigns in the Arctic include the situation in Greenland. As Denmark has ruled the indigenous population of the island for centuries, issues of racism, marginalization, and colonialism has sowed division between Nuuk and Copenhagen. So too have conflicts concerning what has been perceived as the lack of legitimate representation by the indigenous people in decision-making related to Greenland's foreign relations.[41] In this situation, foreign states have been identified as actors seeking to exploit and sow division between Copenhagen and Nuuk.[42]

> Owing to the increased great power rivalry in the Arctic and North Atlantic regions, the Faroe Islands and Greenland may become the targets of Russian or Chinese influence activities. Therefore, PET [Danish Security Police] assesses that Russia and China may be interested in information that could be used for influence activities such as potential internal disagreements within the Danish Realm and the positions of the Faroe Islands and Greenland as regards military matters and sanctions against Russia.[43]

Hostile influence can be a powerful tool in strategic competition and can represent a subtle lever of power, quite different from more direct military capa-

bility tools and economic strength, which are typically addressed in rationalist IR theory. Nevertheless, information and control of narratives can create the basis for public opinion, indirectly affecting the willingness to compete. When seeking common features characterizing hostile influence activities, the tendency to exploit potential existing internal divisions in Arctic states is a recurring pattern.

China has also been identified as seeking to influence narratives and promoting its interest in the Arctic at the cost of the other Arctic states.[44] The focus has often centered on establishing the idea that China is a crucial stakeholder in the Arctic as a "near-Arctic" state.[45] In the Department of Defense's *2024 Arctic Strategy*, this tendency is pointed out and acknowledged as a means for influence at the relative cost of other states: "Although the vast majority of the Arctic is under the jurisdiction of sovereign states, the PRC seeks to promote the Arctic region as a 'global commons' in order to shift Arctic governance in its favor."[46] According to Danish intelligence, China is also recognized, alongside Russia, as an actor that seeks to exploit vulnerabilities pertaining to the Arctic in Western societies.[47]

Military

While the Arctic was an important military theater during the Cold War, this situation gradually ended with the breakdown of the Soviet Union. However, in 2007, and particularly since the Russian war on Ukraine (2014 and 2022), the Arctic has been revitalized as a military–strategic theater.[48] Russia has today reestablished itself as a capable great power throughout the Arctic, where it has refurbished and built significant new military infrastructures such as the Nagurskoye Air Base on Franz Josef Land, establishing the "most developed regional military presence of all the Arctic Nations."[49]

The Russian focus on improving their military capabilities in the Arctic can be interpreted as an attempt to dominate the Arctic militarily. Western NATO states, particularly represented by the United States, the United Kingdom, the Netherlands, in addition to the Nordic states, have sought to counter this situation, building its own cold weather capable forces able to conduct complex operations in the region.[50] In this ongoing competitive response, the emphasis has been on interoperability and power projection capabilities, where acquiring appropriate material to conduct and win high-intensity multidomain operations in the North Atlantic and the European Arctic theater, against a symmetric, peer, or near-peer competitor has been important.[51] This is an effort running parallel to conceptual and doctrinal initiatives pertaining to competitive high-intensity operations in the cold weather scenarios.[52]

In addition, one should point out how the United States and Canada increasingly have acknowledged the need to improve vigilance and situational

awareness in their own backyard, "cautioning that the United States and Canada have lost their long-standing military advantages in the Arctic to Russia."[53] As a result, the North American Aerospace Defense Command (NORAD) with its North Warning System has been modernized, where upgrades of early warning and antimissile capabilities designed for a peer-competitor situation has been conducted.[54] Similarly, U.S. Northern Command recently increased its focus on the defense of the North American Arctic, including the Canadian archipelago and the Arctic Ocean.[55]

Examples of strategic competition and balancing behavior can also be observed in the Arctic seas and oceans. The U.S. Navy, with their NATO allies, have started conducting "freedom of navigation operations" in the Barents Sea region, close to Russia.[56] The operational sailing pattern resembles the tense period of the Cold War. An illustrative example is that the two U.S. aircraft carriers, USS *Harry S Truman* (CVN 75) and USS *Gerald R Ford* (CVN 78), have in the last few years ventured far north into the Norwegian Sea, not different from operational patterns of the 1980s.[57] In addition, the most "conspicuous display of posturing" in the Arctic is probably represented by the increased flight of U.S. Bomber Task Force groups into the Barents Sea, close to the Kola Peninsula and its military installations.[58] The new patterns of air operations also illustrate the U.S. imperative to have access to the region for reasons of global power projection, an issue that has also been pointed out by the U.S. Air Force and academics.[59]

During the last decade, Russia has also sent a large number of bomber planes on flights along NATO countries' coastlines. Russia has also started using "Notice to Airmen" warnings more frequently, conducting live-fire drills by air and naval assets, close to Norwegian waters.[60] This is a type of competitive behavior that should be interpreted as signaling discontent with NATO and the Western powers in the region.[61] While the Russian military activities overall have been centered on operations such as force posturing or signaling, it has also involved incidents of mapping of critical infrastructure and potential use of violent means.[62] In this respect, the damage of railway lines on the Ofoten line between Kiruna and Narvik, represent a case where intended sabotage is likely.[63] The cutting of the cable to northern Norway's Evenes Air Station, hosting Norway's Boeing P-8 Poseidon maritime surveillance planes, and being the northernmost location of Lockheed Martin F-35 Lightning IIs in Europe, represents another case where the police explicitly have stated that intended sabotage is likely to have taken place.[64]

Great power competition also plays out under the sea in the Arctic, where in particular "seabed warfare ha[s] become a hot-button issue concerning grey zone operations and sub-threshold warfare against critical underwater infrastructure (CUI), notably from Russia and China."[65] Well-known examples

where hostile intention has not been ruled out include cutting of communication cables to Svalbard in 2022, the damage of Baltic-connector gas pipeline in 2023, the *Newnew Polar Bear* damaging pipelines in the Baltic Sea in 2024, and the suspected sabotage of a telecoms cable in the Baltic Sea in February 2025.[66] Research has also, in parallel, documented how Russia built the capacity to target undersea infrastructure.[67] The development has caused NATO states to set up a hub to secure critical undersea infrastructure both in the Arctic and the Baltic Sea.[68]

The increased risk of sabotage in the Arctic is the result of strengthened irregular military capabilities that complements the conventional force buildup and is also in line with a greater trend across Europe. Today, there is evidence of Russia plotting "violent acts of sabotage across the continent as it commits to a course of permanent conflict with the west."[69] This is a view also expressed in a recent official threat assessment from Oslo, bluntly warning "there is an increased likelihood that Russian intelligence services will try to carry out sabotage operations in Norway in 2025."[70]

While less is known about long-term Chinese military ambitions in the Arctic region, new concern has surfaced. The increased civilian Chinese activities, and the potential for dual use infrastructure development that could be a part of irregular capability build up, has in this respect been pointed out.[71] The civilian Chinese activities at Svalbard has specifically been noted.[72]

Economic

The economic potential of the Arctic region has long been a core element when media portray states' jockeying for position in the Arctic.[73] This pertains not least to the economic potential that might follow future sailing routes across the Arctic Ocean, the Northern Sea Route, or the Northwest Passage, but also to economic interests related to natural resources that might become more accessible as the sea ice retreats. However, while the region is known to hold significant natural resources such as oil, gas, minerals, and natural resources, there are extended legal regimes regulating both ownership and economic activities, primarily in favor of the Arctic coastal states.[74]

From the perspective of strategic competition, there is an increased tendency to see China as a challenger to this established political order in the Arctic: "In the Arctic, the United States sees China as a potentially destabilizing force, with the economic and military power to try to bend the established order to its liking."[75] There are also indications of China actively using its growing economic might to gain influence in the Arctic: "China actively uses the fields of economics, research and technology to further promote its interests and advance its foothold in the Arctic. . . . Chinese officials have repeatedly stated China's objective of becoming a polar power and a maritime power in the coming years."[76]

However, while China has showed significant interest in investing in industry and infrastructure in places like Greenland and Iceland, there are indications of a pendulum swing, with heightened skepticism given the geopolitical risk involved has become more clear in the West.[77]

Russia's economic policy in the Arctic has also gradually become more assertive.[78] With this perspective, Russia's extensive legal claims in the regulation of the NSR stand out, including warnings of using force against vessels that do not abide by Russian rules.[79] While Russia's legal approach to the status of the NSR is controversial, Moscow has to a greater extent been recognized to have followed the legal procedures of the United Nations Convention on the Law of the Sea, with respect to its documentation of the extended continental shelf in the central Arctic Ocean, hence giving a composite footprint in its legal approach to the Arctic.[80] The Russian approach to strategic competition in the Arctic can in this respect be interpreted to contain elements familiar to both realism—particularly with respect to control and dominance of its close Arctic waters—with Moscow's reasoning in its approach to the control of continental shelves beyond 200 nautical miles more in accordance with the logic put forward by liberalism.

Strategic Competition in Today's Arctic

Following the less tense decades after the end of the Cold War, great power rivalry and strategic competition have returned to global politics. While the shift might stand out as surprising to some scholars, the change could also be seen as a return to normalcy in the international system, a state of affairs much in line with a realist perspective on the role of power in international affairs.[81]

There are today clear indications of strategic competition in the Arctic. This competition is increasingly being played out between two more or less clearly defined blocs: A group of Western democratic states led by the United States, a fact continuing to be the case despite more intrabloc turbulence under the second Trump administration, and a group of more authoritarian states led by Russia. The western North Atlantic states constitute a large, more or less continuous, regional group of states, stretching from the Arctic Ocean to the North Sea and North America. In contrast, the Russian-led authoritarian-oriented bloc has many fewer regional partners. Moscow has instead resorted to a strategy of inviting states from faraway places, with the Sino–Russian relationship as the core.

In realism and liberalism, the key rationalist approaches to the study of IR, conflict, and competition are regarded as permanent features of the international system. This fits well with an understanding of strategic competition as a phenomenon that occurs across a competition continuum. This is a continuum where conflicts of interests could be managed and solved through finding mu-

tually acceptable solutions on the one end, to armed conflict on the other end of the continuum.[82]

When using wording from the *Joint Concept for Competing*, the "normal and peaceful competition among allies" should not be included in what many regard as strategic competition.[83] Following such a differentiation, this article has focused on strategic competition across the DIME spectrum between the above-mentioned blocs in the Arctic. This might be competition of a direct hostile or violent nature, as well as through more subtle nonviolent strategies.

Competitive hostile actions can involve sabotage and the use of physical means for destruction. Today, Russia has become emboldened and willing to take greater risks. There are several recent examples of physical destruction and likely sabotage against Western interests in Europe, including the Arctic. Communication cables and railway facilities have in this respect been noted as targets in the Nordic countries.

Conversely, strategic competition could also involve the use of malign but not kinetic instruments of power. Incidents where an opponent uses false or misleading narratives for the purpose of increased domination and political gain are illustrative. Such actions could be described as taking place in a gray zone between deep peace and a shooting war.

The empirical section of this article has also illustrated how strategic competition in the Arctic could be observed through the use of military buildup and more assertive force postures, including live-fire drills and provocative behavior. Certain types of scientific activities as well as civilian dual use capabilities in the Arctic could also be regarded as political and competitive in nature. Economic investments, civilian capability development, and various forms of scientific activity in the Arctic could, in this respect, together with military activity, all be interpreted as society wide, cross sector, balancing behavior.

Finally, strategic competition in the Arctic can also be observed through activities seeking to affect or influence the legitimacy of governance. There are clear indications of strategic competition in diplomatic activities, where the current breakdown in circumpolar institutions has led the two blocs to pursue different strategies for influence and ways to establish dominance. Note China's ambitions in seeking to create new narratives aimed at pursuing greater access to and legitimacy in participating in Arctic governance and legal affairs.

Going back to the basic theories of IR, the strategic competition today playing out in the Arctic fits well into the rationalist view of how the international system works in an international dynamic characterized by strategic competition.

On the one hand, the competition matches a realist view of interstate rivalry, where states in the international system are assumed to develop strategies to maximize security, wealth, power, and prosperity at the cost of others. Similarly,

it also fits the assumption that this competition is a deeply inherited and lasting feature of the international system, where relative gains matter and where there is always a risk of armed conflict and war.

On the other hand, there is also an empirical basis to support liberal theories suggesting that negative unintended consequences of competition could be harnessed through institutions and international law. This dimension regulates several aspects of international affairs in the Arctic today. The role, and harnessing effects, of the regulations given by the UN Convention on the Law of the Sea, stands out as particularly visible in this respect. However, as many of the circumpolar institutions today appear to be paralyzed, or put on hold, mostly due to Russia's war on Ukraine, the competitive environment experienced in today's Arctic increasingly reflects an international society more characterized by zero-sum thinking, an international dynamic where the constraining role of institutions has diminished. This is a dynamic much in accordance with realism's view of the international system, where all dimensions of society tend to have a security-related component and where the emphasis is put on states' relative gains and the need to balance competitive powers.

The Way Forward

Taking the current trends of international relations in the Arctic into account, the West needs to find ways to respond to the new challenges represented by a more unpredictable and competitive climate. In practice, greater consciousness should be given to issues found across the entire DIME spectrum. This includes acknowledging the competitive aspects of issues such as economic investments, infrastructure development, and scientific research. Similarly, this could also feature several aspects of international governance, including the setting of the agenda, and be regarded as tools in a competitive political rivalry. Such a reorientation could, at least in the short term, lead to less cooperation between East and West. While less cooperation such as through sharing of scientific data, slower development of infrastructure projects, or a delay in institutionalized cooperation might be a consequence, this might be the cost Western states should be willing to take in order to become less vulnerable and protect basic national and democratic interests in the long run.

While common solutions and agreements should be sought between East and West, there needs to be sober realism among Western stakeholders with respect to how activities traditionally not associated with security could be used for political gain, creating an unfavorable balance to the West in the long run. Developments within Arctic diplomacy, the information space, as well as economic development in the Arctic should hence be put under greater scrutiny, as these are all areas that could influence relative power-balancing in strategic competition in the Arctic in the years to come.

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The Arctic as a Periphery in U.S.-China Competition

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Abstract: While China's Arctic inroads have attracted growing attention from the United States, this article views Arctic competition as a periphery of global great power competition, or as a sideshow to the main theater of U.S.-China competition—the Indo-Pacific. Examining China's Arctic activity from a peripheral perspective, it ultimately argues that the United States should sustain its current posture of not letting a nonpriority theater become a main event in its competition with China.

Keywords: China, Arctic, great power Arctic, great power competition, Indo-Pacific, U.S.-China, periphery strategy, U.S.-China competition

Throughout the 2010s, a cohort of non-Arctic states, including China, Japan, India, and South Korea, demonstrated a growing appetite for regional involvement, unveiling policies and investments aimed at taking advantage of increasingly accessible natural resources, shipping lanes, and strategic positions.[1] China has attracted the most international attention, as it has campaigned for decades to gain acceptance as a legitimate regional stakeholder, relying on science, economics, international law, and rhetoric bolstering its image as "an active participant, builder, and contributor" to Arctic affairs.[2] Establishing a foothold in the Arctic supports China's economic development and security, including by providing access to shipping routes that mitigate traditional strategic vulnerabilities as well as to natural resources, from oil to

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high-protein food sources.[3] But the concept of the periphery reveals another potential aspect of its interests: the Arctic's function as a venue in which China can attempt to shore up vital defense interests and encourage competitors to divert focus from the main theater of competition, the Indo-Pacific.

This article views Arctic competition as a periphery of global great power competition. From this perspective, the Arctic is a sideshow to the main theater of competition between the United States and China: the Pacific's first island chain with imperiled Taiwan at its center. The article attempts to explain why China, which lacks a geographic connection to the Arctic, has pursued a regional strategy in the Arctic as an opportunity to take focus off its aggressive ambitions in the Indo-Pacific region. It addresses a gap in the literature concerning the peripheral dimension of great power competition in the high north. Various publications examining China's Arctic activity as it relates to the Indo-Pacific, or how the Arctic involvement of China and other Asian states has "shifted the Arctic's strategic center away from the region itself toward the Indo-Pacific," omit any reference to Taiwan or the first island chain, China's most important focal issue.[4] More broadly, this article highlights the importance of understanding peripheries—both geographic and conceptual—as nonpriority theaters in the overall concept of great power competition.

The first part of the article, which considers China's concept of "peripheral diplomacy," addresses how the article's main argument lies in existing theories of the periphery.[5] The second part assesses China's economic investments in U.S.-allied Arctic states, specifically the Nordic states, from a peripheral perspective. Historically, the Nordics have supported the "One China principle," Beijing's belief that the People's Republic of China (PRC) is the sole legal government of Taiwan and that Taiwan is an inalienable part of the PRC. Yet, they have resisted China's economic inroads to a greater degree than the conventional wisdom suggests and have deepened their trade relationships with China at a considerably slower rate than most European states. This potentially puts the Nordic states in a comparatively stronger position to respond to future Chinese action against Taiwan, if it suited their interests to do so. The third part of the article examines how, from the perspective of peripheral strategy, China has an interest in encouraging the United States to divert resources to the Arctic at the expense of the Indo-Pacific and indeed may be doing so. The United States wisely has not diverted major resources to Arctic competition, perhaps indicative that it recognizes the region as a periphery. Finally, the article concludes by considering lessons for the United States as it considers what to do—or not do—in its approach to competing with China in the Arctic. The article ultimately argues that Washington should sustain its current posture of not letting a peripheral region become a main event in U.S.-China competition.

Theories of the Periphery

The concept of the *periphery*, as this article uses the term, reflects insights generated during the World War I era.[6] Maritime strategy of that period highlights how a peripheral approach avoids decisive battle while embracing indirect methods and unfolds at a distance from the "main event" where most resources are concentrated. For example, naval historian Julian S. Corbett emphasized that maritime Britain, hewing to its strategic tradition, should avoid continental entanglements and instead leverage seapower to defeat Germany. Rather than committing the British Expeditionary Force to the western front, Britain should seek to influence events on land by putting Germany on the horns of a dilemma in the Baltic, on whose trade routes it was dependent for resources like Swedish iron ore. While Corbett did not see the Baltic as peripheral in the sense of being of secondary importance relative to Flanders, his vision included a concept of peripheral action, or action occurring away from the main locus of attention but with the potential to significantly affect events there.[7] In Andrew Lambert's analysis, the Baltic concept, breaking with "the emerging orthodoxy of the Western Front," was "a serious alternative to the continental commitment."[8]

As the early war of movement on the western front settled into a grinding war of attrition, First Lord of the Admiralty Winston Churchill, who previously had "looked for a costly, 'decisive' battle," sought to identify "alternatives than sending our armies to chew barbed wire in Flanders."[9] His search for a peripheral approach spurred the 1915 Dardanelles campaign, which he anticipated would create conditions for the Ottomans being forced to divert resources to contend with the Allies in Constantinople.[10] During his Hejaz campaign, T. E. Lawrence was more successful than Churchill in executing a peripheral strategy, demonstrating how the problem of strategic stalemate on the western front might be lessened by drawing enemy forces away from the primary theater and forcing them to expend resources on "a side-show of a side-show."[11]

Looking beyond the Great War, maritime strategy inherently is peripheral, enabling a state to advance core interests without committing the entirety of its resources or attempting to directly achieve ultimate objectives. As U.S. Navy Captain John D. Hayes wrote in 1953, "ultimate objectives of all warfare can only be obtained upon the land."[12] He observed, "Peripheral strategy was called 'sea power' by Mahan. Before the air age it could validly be called maritime. But whatever its name, limited aims in warfare can be gained by such a strategy provided that these ends do not include liberating large geographical areas, complete subjugation, or unconditional surrender."[13]

In the contemporary context, Hayes's observation highlights how a peripheral approach can be useful for advancing core interests while keeping conflict limited and under the threshold of nuclear red lines. While the periphery may

not be the place where ultimate objectives are achieved, peripheral activity can affect the main effort with respect to those objectives. Meanwhile, theories of the periphery pioneered during the Great War underscore that peripheral strategy focuses on alleviating pressure on the main theater of conflict or competition. This article argues that these insights shed light on China's activity in the Arctic since the early 2010s, the period coinciding with "periphery diplomacy" becoming an explicit focus of the Chinese Communist Party (CCP).

As Michael Swaine documents, "China's periphery was first stressed as being of 'primary importance' in China's foreign policy at the 16th Party Congress in 2002."[14] But it was in 2013 that the CCP hosted the first "foreign policy work conference" devoted to periphery diplomacy. Xi Jinping described peripheral regions as "strategically significant to our country in terms of geography, the environment, and relationships."[15] He emphasized the necessity of striving for "an excellent peripheral environment for [China's] development" to achieve the "Chinese dream of the great rejuvenation of the Chinese nation."[16] According to Jianwei Wang and Hoo Tiang Boon, Xi's statements "affirmed the importance of a stable external milieu, in particular [China's] neighboring regions, domestic development, and recognized the centrality of periphery diplomacy."[17]

What constitutes *the periphery*, from Beijing's perspective? In 2014, Swaine noted that while "the public remarks of senior Chinese officials suggest that the main countries on China's periphery, and thus the primary focus of periphery diplomacy at present, include nearby smaller and middle-range states," Chinese sources, including authoritative sources representing the CCP, "do not specifically define the geographical extent of China's periphery."[18] Some suggest that its reach is remarkably expansive. For example, in 2013, Yuan Peng, vice president of the state-linked China Institute of Contemporary International Relations, identified three "rings" of the periphery: an "inside ring" (states sharing a land border with China), a "middle ring" (including maritime states adjacent to the inner ring and extending into the Western Pacific), and an "outer ring," constituting the "great periphery" and including "the circle of Africa, Europe, and America."[19] Similarly, in 2017, Wang and Hoo wrote that while the traditional Chinese periphery includes only countries adjacent to China, the concept has expanded; now, "it goes beyond that to cover the so-called 'greater periphery'."[20] In 2020, however, Jacob Stokes offered a narrower view of the scope of China's periphery, distinguishing between the "small periphery" of "directly adjacent states" and the "large periphery *throughout Asia*."[21]

Given that the Xi era marks the "global expansion" phase of Chinese grand strategy, this article takes a broad view of the scope of China's periphery.[22] Recognizing that the CCP apparently has not excluded any region as irrelevant to periphery diplomacy, and in light of Xi's understanding of the objective of "an

excellent peripheral environment" as supporting China's development in order to realize the great rejuvenation, there is no reason to exclude the Arctic as a nontraditional Chinese periphery.[23] For China, the Arctic is valuable as an arena not only for shoring up core defense interests, including territorial issues at the heart of the great rejuvenation project, but also for encouraging adversaries to divert focus from the main theater of competition—the Indo-Pacific.

Advancing Core Interests in the Arctic Periphery

Since the 1990s, China has amplified scientific research and appeals to international law and multilateralism in its bid to internationalize the Arctic and justify its claim to be a legitimate stakeholder. For example, with the 1993 purchase of the *Xue Long*, an icebreaker that conducted its first polar research expedition in 1994, China highlighted scientific pursuits as a central driver of its Arctic interest and presence.[24] In its first Arctic strategy white paper, published in 2018, China described becoming a member of the International Arctic Science Committee in 1996 as marking "its more active participation in scientific research in the Arctic."[25] In 2004, the Polar Research Institute of China, jointly with institutes in Japan and South Korea, founded the Asian Forum for Polar Sciences, a "platform for polar scientific research exchange and cooperation among countries in Asia."[26] In 2013, a cohort of Chinese and Nordic institutions founded what Beijing described as the first China-driven "multilateral Arctic cooperative research and exchange mechanism."[27]

China's Arctic white paper presents multilateral governance, specifically including non-Arctic states, as natural and inevitable given trends in globalization and regional integration. It states, "The Arctic situation now goes beyond its original inter-Arctic States or regional nature, having a vital bearing on the interests of States outside the region and the interests of the international community as a whole, as well as on the survival, the development, and the shared future for mankind."[28] It acknowledges that although non-Arctic states lack regional territorial sovereignty, "they do have rights in respect of scientific research, navigation, overflight, fishing, laying of submarine cables and pipelines in the high seas and other relevant sea areas in the Arctic Ocean, and rights to resource exploration and exploitation . . . pursuant to treaties such as UNCLOS [UN Convention on the Law of the Sea] and general international law."[29] Throughout the paper, China underscores that economic interests, including accessing natural resources and developing shipping routes, are its priority in the Arctic.

While China seeks to exploit economic opportunities in an increasingly accessible Arctic, at first glance the region appears to have little relevance to vital interests in its own region. Yet, as Jerker Hellström noted in 2016, "Chinese officials regard the Nordic region as . . . an arena for the promotion of Chinese

core interests," including issues of "territorial integrity and national sovereignty" involving Taiwan, Tibet, and Xinjiang.[30] His observation highlights that even in areas that may not seem directly related, China is focused on promoting its core security interests. In this case, Arctic participation provides China yet another forum to engage with potential stakeholders (the Nordics) and apply pressure to gain support for issues more central to the Indo-Pacific.

Chinese foreign policy often makes economic investments today with the expectation of political payoffs in the future, as demonstrated by numerous infrastructure investments as part of its various "Silk Roads." One of the most important of these expected payoffs is contributing to Taiwan's erasure as an independent entity, including by revoking official and unofficial ties to Taiwan and building an international consensus on the Taiwan question. By doing this, China expects that if it takes decisive action to seize control of Taiwan, it likely will be accepted by the international community with minimal negative consequences to China for the likely brutality of its conquest. For more than a decade, China has used economic inducements to chip away at Taiwan's remaining diplomatic allies, which have declined from 23 in 2011 to 12 in 2024.[31] It also has applied economic power to erode unofficial support by states seeking to engage with Taiwan's economy and society while avoiding negative repercussions from the PRC.

Viewing China's Arctic economic investments as part of a peripheral strategy, a key question is whether they have yielded the desired dividends concerning Taiwan. This question has received inadequate attention considering its importance for understanding and deterring a hot conflict between China and the United States. Notably, a 2022 report produced by the Center for Naval Analyses (CNA) for the Department of Defense (DOD)—*Exploring the Relationship between China's Investment in the Arctic and Its National Strategy*—did not mention Taiwan.[32] This omission illustrates how experts often have not drawn an explicit connection between what China does in the Arctic and its main effort in the Indo-Pacific. A peripheral perspective would insist that they do so.

Some experts have portrayed Arctic states, especially the Nordics, as recently undergoing a change in their attitudes after previously having accepted China as a "legitimate Arctic stakeholder" and having been "generally welcoming of [its] engagement in the region," as Anne-Marie Brady described Sino-Nordic relations in 2017.[33] In 2022, for example, Andreas Forsby wrote that perceptions of China had "fundamentally changed in the Nordic countries as security-related concerns and sensitive political issues have come to the fore," including Huawei's surveillance for the CCP and China's crackdown on Hong Kong protesters and mass detention of Uyghurs in Xinjiang.[34] In its 2022 report, CNA highlighted that Arctic states "including Finland, Denmark, and Canada" had "blocked PRC investment in the Arctic because of security concerns."[35] Such

accounts portray the Nordic states as similar to other states that began to re-evaluate their China policies following the COVID-19 pandemic and Russia's invasion of Ukraine, events spurring policymakers to focus more intensely on the links between economic interdependence and national security. But a look at major Arctic natural resource extraction and infrastructure projects involving China-based entities, which have been a focal point for observers interested in Beijing's efforts to secure a regional foothold, suggests that there has been less of a dramatic change in their stance toward Chinese investments than has been portrayed. These states were often not very involved with Chinese projects to begin with and had a more active pre-2020 record of pushing back on them than is often conveyed.

In its 2022 report for the DOD, CNA evaluated 37 high-profile Arctic natural resource and infrastructure investment projects involving Chinese entities, 13 of which (35 percent) involved Russia, with 24 others (65 percent) divided among 8 host country locations (the 5 Nordics, Canada, the United States, and the United Kingdom). First, considering natural resource extraction projects, CNA identified 14 that were ongoing as of 2022. Of those, Russia was the host for eight; Canada for three; and Greenland, the United States, and the United Kingdom for one each. Out of 20 total natural resource extraction projects that were stood up from 2008 to 2020, 5 were "blocked by the host country, cancelled, or otherwise stalled."[36] Of those five, one involved Russia (stalled, 2013); one, Iceland (cancelled, 2014); two, Greenland (stalled, 2016 and 2019); and one, Canada (blocked, 2020). Blocking, stalling, or cancelling natural resource projects involving Chinese entities occurred in 25 percent of cases, and in two of the three cases involving Nordic states occurred at least several years prior (in 2014 and 2016) to what has been portrayed as a relatively recent shift in their approach to Chinese investments.

Turning to projects focused on developing "the infrastructure necessary to support resource extraction and commercial shipping in the region," CNA reported that of four that were ongoing as of 2022, Russia was the location for two while Norway and Sweden hosted one each (Finland had one project launched in 2016, which CNA coded as in the "planning" stage).[37] Of 17 total infrastructure projects that were stood up from 2012 to 2022, 6 were "blocked by the host country, cancelled, or abandoned."[38] Of those six, one involved Iceland (blocked, 2012); one, the United States (abandoned, 2017); two, Greenland (blocked, 2016, and abandoned, 2017); and two, Finland (blocked, 2018 and 2019). Blocking, cancelling, or abandoning infrastructure projects involving Chinese entities occurred in 35 percent of cases, and in three of the five cases involving Nordic states this occurred earlier in the 2010s (in 2012, 2016, and 2017) than many conventional accounts of their attitudes toward Chinese investments would suggest.

In sum, CNA data suggests that the Nordic states had limited ties to major Chinese natural resource and infrastructure investment projects, making it easier to loosen ties when they determined it was in their interest to do so. Notably, Greenland and Iceland—which, as the smallest and poorest of the Nordics, theoretically should have been the most vulnerable to PRC economic influence—account for two of the earliest cases of blocking Chinese infrastructure projects, Iceland in 2012 and Greenland in 2016.

The Nordic states' willingness to challenge some of China's efforts to establish a robust economic foothold in the Arctic region currently does not appear to have impacted their long-standing support for the PRC's "One China Principle" and aversion to rocking the boat on the Taiwan question. In 2024, Andreas Forsby noted that not only are the Nordics collectively "not part of the group of so-called 'vanguard countries' that are most supportive of Taiwan in Europe," but that Iceland and Norway "can more aptly be referred to as 'laggards,' having completely isolated themselves from Taiwan with no direct channels of institutionalized bilateral interaction."[39] His interpretation aligns with that of University of Oslo professor Halvor Eifring, who in a 2023 interview noted that, especially given Oslo's campaign to mend the rupture in relations with Beijing following human rights activist Liu Xiaobo receiving the 2010 Nobel Peace Prize, "Norway is probably even more China-friendly than other Nordic countries and not openly Taiwan-friendly."[40]

Certain metrics support the idea that the Nordics lag behind the European "vanguard" on the Taiwan issue, or what Taipei has dubbed the "Dumpling Alliance" of the Czech Republic, Lithuania, Poland, and Slovakia.[41] But recent trade patterns suggest that, unexpectedly, it may be the *Nordics* that will be better positioned in the future to respond to Chinese aggression against Taiwan. For example, consider the differential rates of deepening levels of trade between China and the five Nordics, on the one hand, and the four Central and Eastern European (CEE) vanguard states, on the other. For each of the nine states, table 1 compares the value of imports from China in 2017 and 2022, as well as the annualized rate of growth in imports. Table 2 compares the value of exports to China in 2017 and 2022, as well as the annualized rate of growth in exports. Expanding the analysis to consider how the CEEs and Nordics rank among all members of the European Union (EU) plus the United Kingdom and non-EU member Nordic states, in terms of the annualized rate of growth in imports from China, the 4 CEEs rank in the top one-third of 29 states, while the Nordics rank in the middle and bottom one-third.[42] In terms of the annualized rate of growth in exports to China, the CEEs rank in the top 11, while the Nordics rank in the middle and bottom one-third, with one exception—Iceland.[43]

Unexpectedly, since 2017, China has significantly deepened its trade relationship with states recognized as being at the vanguard of pro-Taiwan sentiment

Table 1. A comparison of five Nordic and four Central and Eastern European states' 2017 and 2022 imports from China and the annualized rate of growth in imports from 2017 to 2022, listed from highest to lowest rate

State	2017 imports	2022 imports	Annualized rate of growth
Lithuania	$2.44M	$1.3B	251%
Slovakia	$66M	$3.86B	126%
Czech Republic	$228M	$13.2B	125%
Poland	$548M	$23B	111%
Sweden	$442M	$8.2B	79%
Iceland	$21.8M	$368M	76%
Finland	$344M	$4.37B	66%
Norway	$589M	$6.59B	62%
Denmark	$673M	$6.64B	58%

Source: Data from the Observatory of Economic Complexity, accessed 11 August 2024.

Table 2. A comparison of five Nordic and four Central and Eastern European states' 2017 and 2022 exports to China and the annualized rate of growth in exports from 2017 to 2022, listed from highest to lowest rate

State	2017 exports	2022 exports	Annualized rate of growth
Lithuania	$1.16M	$251M	193%
Slovakia	$22.3M	$1.48B	131%
Iceland	$2.69M	$99.9M	106%
Poland	$94.4M	$2.37B	91%
Czech Republic	$137M	$2.54B	79%
Denmark	$302M	$4.38B	71%
Norway	$263M	$3B	63%
Sweden	$1.23B	$7B	42%
Finland	$716M	$3.69B	39%

Source: Data from the Observatory of Economic Complexity, accessed 11 August 2024.

in Europe, much more so than with Nordic states that already had accepted its policy toward Taiwan. The members of the Dumpling Alliance are among the leaders in Europe in terms of growing levels of trade with China. Meanwhile, China's trade with the Nordics, some of which have been characterized as Taiwan laggards, also has increased, but at a much slower rate. This points to a potential PRC approach to influencing European policy. States that actively championed Taiwan attracted attention from China as priority candidates for a tighter trade relationship. As poorer states than the Nordics—as is the case for the four CEEs, which rank in the bottom 42 percent of 48 European countries and territories by gross domestic product (GDP) per capita—they likely

also were more receptive to China's economic overtures. But the Nordic states, which have not supported Taiwan's cause, attracted less of China's attention for developing deeper trade bonds. They also may have been less keen to enter into a much tighter economic relationship with China given their relatively higher levels of prosperity, ranking in the top 38 percent of 48 European countries and territories by GDP per capita.[44]

In other words, states that most actively position themselves as pro-Taiwan on the world stage today may be opening themselves up to levels of interdependence with China that in the future may make it particularly costly to support punitive measures against Beijing in the event of an invasion of Taiwan. Meanwhile, the states that appear less willing to rock the boat over the Taiwan question today and that, as in the Nordics' case, are deepening levels of trade with China at a considerably slower rate than others, may be setting themselves up to be in a better position to respond to future Chinese aggression. For the United States, this has obvious implications for engaging with Nordic states to persuade them to oppose China's aggression in the Indo-Pacific and to increase trade with poorer European states to reduce their susceptibility to Beijing's economic initiatives.

U.S. policymakers should be attuned to the potential for a disjuncture between the narrative of Chinese expansion and influence in the Arctic and reality. As two scholars from the Norwegian Institute for Defence Studies observed in 2024, "[M]ost of China's attempts at investing in Arctic resources outside Russia have been put on hold or have failed altogether. Even in the Russian Arctic, China's economic footprint is relatively limited beyond its engagement in the Yamal liquified natural gas project."[45] In recent years, Washington has expressed concern about China's Arctic footprint. However, as the next part of this article examines, the United States ultimately has not diverted major resources to the region. On the one hand, viewing the Arctic as a periphery of U.S.-China competition, Washington is wise to avoid strategic distraction from the Indo-Pacific. But on the other, the United States and its NATO allies confront serious risks from Russia's intensifying militarization of the Arctic. The distinct nature of the challenge that China versus Russia poses in the Arctic highlights that while the concept of the periphery may be useful for understanding China's Arctic behavior during the present phase of competition with the United States, it is not an appropriate lens through which to view Russia's Arctic posture in the current stage of its confrontation with the West.

Encouraging Competitors to Divert Focus from the Main Theater of Competition

As the first part of the article discussed, advancing vital defense interests is one aspect of China's Arctic strategy that the periphery concept brings into sharper

focus. The concept also points to China's interest in encouraging the United States to divert focus from the Indo-Pacific to respond to perceived strategic risks elsewhere. In other words, a periphery can serve as an arena for strategic distraction if an actor is able to draw in an adversary and compel a response. Corbett addressed a similar phenomenon in discussing the idea of a "fleet in being." Departing from prevailing Mahanian orthodoxy, which "extolled the importance of achieving dominance at sea through formidable fleets," he "emphasized the constant pressure exerted by a navy's presence, which he termed 'Fleet in Being,' as a means of strategic influence."[46] The idea was that a fleet could exert influence and compel an adversary without ever leaving port, much less engaging in decisive battle. The parallel is that, despite having no territorial claims or a permanent military footprint, simply by its Arctic presence China can seek to compel a U.S. response—specifically, one incommensurate with actual Chinese capabilities or risks to specific U.S. interests—diverting focus from the main theater of competition. P. Whitney Lackenbauer, Adam Lajeunesse, and Ryan Dean have addressed this possibility, pointing out that with Beijing's "main preoccupations" being in its own neighborhood and Taiwan representing the "main strategic direction" of the People's Liberation Army, "over-inflated or misplaced fears about China's military threat to and in the Arctic may prove to be a strategic distraction, diverting Arctic states' attention and defense resources from elsewhere."[47]

Since the early 2010s, when observers began paying closer attention to China's Arctic activities, there often has been a gap between its actual capabilities and Beijing's characterizations thereof. In 2012, Anne-Marie Brady observed that "for all the attention it receives, China is not putting a lot of money into its Arctic program," which received only $12 million of $60 million total allocated to the polar program (which encompassed the Polar Research Institute of China and the China Arctic and Antarctic Administration). "On the Arctic," she wrote, "Beijing produces a lot of smoke, mirrors and big talk, which disguises their small investment."[48] But two years later, in 2014—a year when the Arctic seemingly was "not especially high on the Chinese agenda"—Xi announced China's aspiration to become a "polar great power."[49] Given that such a status appeared incongruous with China's present capabilities or priorities, what was the added value of this announcement? Whether by design or unintentionally, one effect of Xi's declaration was explicitly incorporating the Arctic into the playing field of great power competition, opening it as a potential periphery in U.S.-China relations.

In 2018, Xi upped the ante as China published its first Arctic strategy document, described its vision for a "Polar Silk Road," and declared itself a "near-Arctic state."[50] Notably, in 2012, Gang Chen wrote that "Chinese strategists will try to avoid drafting any written blueprints that may alarm or provoke

Arctic and other non-Arctic nations."[51] The implication was that releasing a formal strategy would spur a flurry of reaction by the United States and its allies, which Chen portrayed as undesirable for China. Yet, from the perspective of peripheral strategy, such a reaction would not just have been advantageous but may have been a deliberate objective.

These milestones in China's Arctic policy coincided with the region commanding more attention in Washington. In 2015, for example, the year after Xi's "polar Great Power" declaration (and, as will be discussed below, the year after Russia's Crimean invasion spurred the unraveling of its relations with the West, including in the Arctic), the Barack H. Obama administration created an Arctic Executive Steering Committee designed to "better coordinate Arctic efforts throughout the government."[52] Meanwhile, in 2016, Congress highlighted its "sense that the Arctic is a region of growing strategic importance to the national security interest of the United States and that the Department of Defense must better align its posture and capabilities to meet the growing array of challenges in the region."[53]

Washington's focus on the Arctic as an arena of strategic competition intensified toward the end of the decade. For example, the 2017 *National Security Strategy* ignored the region entirely save one reference to keeping "common domains" like the Arctic and cyberspace "open and free."[54] But in 2019, the year after China published its Arctic strategy, Secretary of State Michael R. Pompeo delivered a watershed speech to the Arctic Council declaring the Arctic "a new arena of global power and competition," while highlighting a "pattern of aggressive Russian behavior" in the Arctic and "China's pattern of aggressive behavior elsewhere" that was indicative of "how it might treat the Arctic."[55] Meanwhile, a section of the National Defense Authorization Act for Fiscal Year 2020 was dedicated to the issue of "Chinese Foreign Direct Investment in Countries of the Arctic Region," directing the secretary of defense to "complete an independent study of Chinese foreign direct investment in countries of the Arctic region, with a focus on the effects of such foreign direct investment on United States national security and near-peer competition in the Arctic region." Congress also called for a review of China's 2018 Arctic strategy to determine the "degree to which Arctic littoral states are susceptible to the political and economic risks of unregulated foreign direct investment."[56] Meanwhile, the DOD's 2024 Arctic strategy highlighted that China's Polar Silk Road (the Arctic branch of the One Belt, One Road initiative) "has been used to gain a footing in the Arctic by pursuing investments in infrastructure and natural resources, including in the territory of NATO Allies."[57]

However, a look at some key milestones in the budgetary process from FY 2015 through FY 2025 (including the president's budget request to Congress, the National Defense Authorization Act [NDAA], the Coast Guard Authoriza-

tion Act, and the Consolidated Appropriations Act) illustrates how the United States ultimately has not diverted major resources to what remains a periphery in competition with China.[58] For example, Congress appropriated $150 million for a polar icebreaker in FY 2017 and FY 2018; an unspecified amount for an Arctic ambassador-at-large in FY 2022 and FY 2023; and $125 million for a commercially available icebreaker in FY 2024.[59] In an indication of the distance between Washington's rhetoric about the importance of the Arctic and the resources devoted to it, the president's FY 2024 budget request characterized "establishing American presence in the Arctic" as "a critical security priority" given that U.S. adversaries "are increasing their presence in the Arctic and may seek to disrupt established norms for their own benefit."[60]

One explanation for the limited resources dedicated to the Arctic is that it has lost out to more urgent priorities in the Indo-Pacific and Europe. But it also can be viewed at least partly as the result of an effort to approach the Arctic as a periphery that should not distract from the main theater of U.S.-China competition. For example, in the NDAA for FY 2020 (signed into law in 2019), just after China released its Arctic strategy, Congress asked important questions about the Arctic as a potential Chinese periphery.[61] It called for a comprehensive review of China's Arctic strategy, to determine, among other objectives, "the implications of China's Arctic development and participation model with respect to forecasting China's military, economy, territorial, and political activities" as well as "the degree to which activities of China in the region are an extension of China's strategic competition with the United States."[62] While Washington has remained attuned to the possibility of a "strengthened, future Chinese military presence in the Arctic Ocean," it also has recognized that China's Arctic presence remains "limited," as the DOD characterized it in 2024, 10 years after Xi's "polar Great Power" declaration and six years after China's "near-Arctic state" branding.[63] This reflects an appreciation of the difference between China's actual capabilities and impact and what Rebecca Pincus calls the "myth" that "China is coming for the Arctic."[64]

In contrast, for the United States and its allies, Russia, whose militarization of the Arctic has intensified in the context of the deterioration of its relationship with the West in the last decade, represents "the core challenge to Arctic stability."[65] For example, in 2014, Russia "created an Arctic joint strategic command for the primary purpose of providing enhanced protection to existing and planned military installations along the NSR [Northern Sea Route]," which Russia, in contrast to most states, considers an internal waterway.[66] In 2017, Russia published an updated naval strategy "expressing clear Arctic ambitions and signaling the importance of the Northern Fleet," which protects the prized Kola Peninsula, housing such strategic capabilities as 7 of 11 of Russia's ballistic missile submarines and enabling power projection to the key GIUK (Greenland,

Iceland, and the United Kingdom) Gap.[67] In 2017, Russia also announced upgrades to the Northern Fleet, including two additional nuclear-powered submarines, to support what *Sputnik International* described as "phasing NATO out of the Arctic."[68] Russia also has used the Arctic as a testing ground for hypersonic missiles and undersea drone technology.[69] These moves have spurred heightened NATO focus on its northern flank (which has intensified following Finland and Sweden's accession to the alliance in 2023 and 2024, respectively). For example, the second iteration of the Trident Juncture exercise, testing NATO's ability to mount an Article 5 response, was held in Norway in 2018. Meanwhile, in 2021, Eugene Rumer, Richard Sokolsky, and Paul Stronski highlighted key NATO responses to Russia's confrontational posture, including the U.S. deployment of "an expeditionary B1-Lancer squadron with 200 personnel on a temporary basis to Norway" and joint U.S.-UK-Norway exercises "just over 100 miles from the Russia coastline."[70]

The deepening strategic relationship between Russia and China complicates the Arctic as a periphery of U.S.-China competition, though prospects for Moscow and Beijing's long-term cooperation in the Arctic are uncertain given each state's distinct relationship to, and interest in, the region. From this article's perspective, however, the key point is that in the Arctic, Russia and the West are engaged in adversarial confrontation reminiscent of the Cold War era, rather than peripheral competition.[71] The Arctic, comprising seven NATO allies, is not a periphery in the context of this confrontation, particularly given the potential for direct conflict on NATO's northern flank. One implication is that the U.S. choice to dedicate limited resources to the Arctic may be wise in the context of its relationship with China but inadequate to address the risks that Russia poses. Overall, however, given the need to prioritize China as the more formidable threat to U.S. global interests, the choice is a necessary one.

Lessons for the United States

One of the key insights gleaned from evaluating China's Arctic activity through the lens of the periphery is that Beijing has at best a mixed record of achieving desirable second-order effects for its priorities in the Indo-Pacific. In particular, its record of securing an economic foothold, including in U.S.-allied states, has fallen short of its ambitions. Meanwhile, the U.S. response has been largely nonreactive and has not come at the cost of diverting major resources from the main theater of competition. As the lessons below highlight, the United States should continue to approach the Arctic as a periphery of competition with China. But it also should appreciate that Russia's invasion of Ukraine enhances China's ability to leverage the Arctic in a peripheral strategy. Moscow's growing dependence on Beijing sets the stage for the United States to face greater dif-

ficulty, compared to the pre-2022 environment, in reacting to the pull of the Arctic periphery in a manner that is disadvantageous to China.

The first lesson for U.S. policymakers is to recognize that the Arctic remains a periphery of U.S.-China competition. Observing "the more visible overspill of conflicting great power policies" into the Arctic, coupled with "the growing attention paid by non-Arctic states to Arctic affairs," one scholar, writing in 2019, concluded that the Arctic "has increasingly been moving away from the international strategic periphery."[72] Yet, as this article has considered, the fact that the Arctic has become more relevant to U.S.-China competition does not negate that it remains a periphery for both states—a region removed, both geographically and conceptually, from the main theater of competition. The difference in perspective is how to use a periphery rather than turn it into the main effort. The United States can compete more actively or deliberately in the Arctic but ultimately should remain focused on the region's relationship to the Indo-Pacific. To this end, the United States should sustain the position of avoiding prematurely "elevating China to military peer or near-peer competitor status in the Arctic," which "can divert attention from parts of the world where the PRC's capabilities and interests actually warrant such status."[73]

The United States should encourage similar thinking within the NATO alliance, for which the high north has become more relevant given the accession of Sweden and Finland and the fracturing of the post–Cold War status quo following Russia's Ukrainian invasion. In recent years, China not only has commanded greater alliance attention overall, but also has been characterized by the chair of the NATO Military Committee as contributing, with Russia, to a "concerning" heightening of "competition and militarization in the Arctic region."[74] Despite this change in the security environment, however, Washington should encourage NATO allies to remain focused on the main effort—deterring Russia in Europe and along NATO's northern flank—while avoiding getting drawn into China's peripheral Arctic strategy.

The second lesson for U.S. policymakers is to recognize that growing Sino-Russian cooperation complicates the Arctic periphery. China's ability to maintain a circumscribed Arctic military footprint hinges largely on good relations with Russia. As Jeremy Greenwood notes, by seeking occasional access rights to Russian bases or participating in joint exercises with Russia, China can "demonstrate [its] power projection capabilities, but in a limited way."[75] In recent years, a "convergence of economic and political interests" has "led to accelerated Russian and Chinese cooperation in the Arctic," with Moscow needing capital for energy infrastructure, which Beijing can provide, and Beijing needing natural resources and access to trade corridors, which Moscow can facilitate.[76] Prior to 2022, scholars frequently addressed the potential for tensions in the Sino-Russian relationship in the Arctic, where Russia, unlike China, has

"economic, security, and ideational interests" that are "directly at stake."[77] As David Auerswald observed in 2019, since the early 2000s, Russia has been wary of China's ambition to become "a major power player in an increasingly accessible Arctic," one of the only contexts in which Beijing can be considered a junior partner to Moscow.[78] Meanwhile, Rebecca Pincus highlighted that any potential security partnership "will be vastly complicated by the high priority of the Arctic in Russia's overall grand strategy."[79]

But Russia's invasion of Ukraine inadvertently strengthened Beijing's hand in the periphery. Russia's growing dependence on China both reduced U.S. opportunities to exploit risks to China in the periphery (including those tied to *its* dependence on *Russia*) and made it more difficult for the United States to resist becoming involved in increasing Arctic security investments. Prior to 2022, the United States had a greater ability to draw out underlying tensions between China and Russia to encourage China to spend more resources in the Arctic than it intended or anticipated, and doing so in a manner limiting U.S. costs and involvement. For example, it potentially could have driven a wedge between China and Russia over the Kuril Islands sovereignty dispute between Japan, which claims the islands as part of its "Northern Territories," and Russia, which recently has doubled down on militarizing the islands by deploying forces, stationing missiles, and constructing new airstrips and barracks.[80] Since Mao Zedong, China had recognized Japanese sovereignty over the strategically positioned islands, which constitute part of the first island chain and offer access to the Arctic via the Northern Pacific.[81] But in 2023, the possibility of the Kuril Islands becoming an Arctic-adjacent friction point between Russia and China diminished, as Xi reversed Mao's position, announcing Chinese neutrality in the dispute, and Russia touted Chinese investors showing interest in executing joint economic development projects on the islands.[82] In short, in the transformed post-2022 security environment, Moscow's growing dependence on Beijing has made it more difficult for the United States to capitalize on potential wedge issues between Russia and China and to exploit risks to China in the Arctic periphery.

The war in Ukraine also has been an unanticipated boon to China's peripheral strategy in the Arctic due to U.S. fears of Sino-Russian collaboration becoming more pronounced. Those fears have strengthened Chinese and Russian incentives to magnify perceptions of their deepening collaboration and alignment. Much as there is a disjuncture between the narrative of China's economic expansion and its actual influence in U.S.-allied Arctic states, equally important is the "narrative-reality gap" concerning China's investment in Russia. As CNA highlighted in a 2017 report on Chinese investment in Arctic energy and minerals projects, "During the investigation of many of these transactions, announcements of the expense, scope, and anticipated value of

various investments were clearly distorted, particularly in Russian and Chinese media." In Russian media, CNA "noted instances of 'creative accounting' (inflating the value of deals) to attract much needed capital into Russian projects and the economy in general."[83] Post-2022, Russia's incentives to engage in "creative accounting" have only increased as it searches for non-Western sources of capital. Meanwhile, China has greater incentives than before to inflate figures surrounding its investment in Russia in order to stoke and exploit Western fears of Sino-Russian collaboration.

In the post-2022 environment, the Arctic will have a stronger pull on the West's attention as one of the main arenas in which the China-Russia partnership is playing out.[84] This appears particularly likely in the U.S. context, given President Donald J. Trump's interest in acquiring Greenland in response to its waterways having "Chinese and Russian ships all over the place."[85] During a March 2025 visit to Greenland, Vice President J. D. Vance explained the administration's position: "We cannot ignore . . . the Russian and Chinese encroachment into Greenland. We have to do more." He stated, "We know the Chinese are very interested in this island. We have seen some of the economic pressures they have tried to place on Greenland. We know they are increasingly engaging in military training and military interests. . . . . We have seen very strong evidence that both the Chinese and Russians are interested in Greenland."[86]

It likely also will become more difficult for the United States to resist increasing investments in Arctic security tools that are not necessarily those best suited to addressing the challenges that China and Russia pose. For example, policymakers have focused on closing the "icebreaker gap" as a cornerstone of the U.S. response to China (which has 3 polar icebreakers) and Russia (which has 41).[87] In 2024, the United States, Canada, and Finland announced plans to launch the Icebreaker Collaboration Effort, a consortium to "collaborate on the production of polar icebreakers and other capabilities," addressing what U.S. officials describe as an allied need of "between 70 and 90 icebreakers" to respond to the Russian and Chinese Arctic presence.[88] During his visit to Greenland, Vance highlighted the need for "investing more resources, investing in additional military icebreakers, investing in additional naval ships that will have a greater presence in Greenland." We "know that is necessary," he stated. "We know there has been an expansion of the security footprint and security interest of Russia and China."[89] Yet, as Paul Avey noted in 2019, "many of the specific military challenges that China or Russia might pose in the Arctic are independent of icebreakers and best dealt with in other ways." Reflecting a peripheral understanding of the Arctic's significance relative to the main theaters of great power competition and potential conflict, he contended that the "best way to deal with China and Russia in the Arctic is to address disputes in their

own backyards," given that most "of the pathways to a great-power crisis that could end up affecting the Arctic stem from crises outside the region."[90]

U.S. adversaries will continue to attempt to draw it deeper into the Arctic periphery. For example, in July 2024, days after the DOD's updated Arctic strategy noted that China and Russia's "growing alignment in the region is of concern," the pair conducted their first joint bomber flight near the United States, which was intercepted in Alaska's Air Defense Identification Zone.[91] However, this article argued that in such a security environment, the United States should focus on the Indo-Pacific and its centrality to great power competition with China, remembering that the Arctic is a peripheral theater to that competition. Such recognition should facilitate not only keeping the main theater of competition in focus but also recognizing diversions. The challenge and opportunity for U.S. policy going forward, especially related to the Arctic, is to keep the periphery peripheral.

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Chinese Arctic Expansion
How Beijing Benefits from Moscow's Isolation

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Abstract: Russia's February 2022 full-scale invasion of Ukraine caused immediate disruption to the Arctic's strategic environment. This shift has caused Russia to partner more closely with China, giving Beijing new opportunities to advance its goals in the region. This article explores the impacts that this shift could have on China's activity in the Arctic. First, it describes the history of China in the Arctic to define its strategic objectives in the region. Then, it argues that the geopolitical changes following the war in Ukraine have given Beijing new opportunities to advance these Arctic goals. Finally, it assesses this shift's strategic impact to the United States and its allies. This work provides a critical insight into changing power dynamics in the Arctic in the aftermath of Russia's invasion of Ukraine.

Keywords: Arctic, China, Russia, infrastructure, Sino-Russian partnership, civil-military fusion

On 24 July 2024, the North American Aerospace Defense Command (NORAD) announced that it had intercepted two Russian and two Chinese bombers flying together in Alaska's Air Defense Identification Zone.[1] This incident represented the first joint patrol between the two militaries in the region. While Russian military activity in the Arctic is considered commonplace, the addition of Chinese forces offered a striking illustration of

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important changes reshaping the region's security landscape. For more than a decade, Beijing has expanded its interest in the Arctic and has increasingly sought to improve its ability to exert influence in the region. Russia's February 2022 full-scale invasion of Ukraine gave Chinese leaders new opportunities to advance this goal. Russian aggression in Ukraine triggered significant backlash from many countries, particularly in Western Europe, leading to Moscow's increasing political and economic isolation. This separation was particularly pronounced in the Arctic, where all states in the region except Russia are members of the North Atlantic Treaty Organization (NATO)—including Finland and Sweden, which joined the alliance in response to the invasion—and have strongly opposed Russian aggression. This geopolitical division in the Arctic has forced Russia to lean more heavily on non-Arctic states for partnership in the region. China, having long sought greater influence in the region, is emerging as an increasingly important partner for Moscow. This growing Sino-Russian partnership is providing Beijing with new outlets to expand their economic, political, and military activity in the Arctic, which will pose unique challenges to the United States and its allies. While American leaders are focused on shifting dynamics between European Arctic states, China's rising prominence in the Arctic may ultimately prove to be one of the greatest enduring security challenges in the region.

China's Arctic History

During the past decade, global attention on the Arctic has increased as climate change reduces year-round ice coverage and opens access to new energy deposits, fisheries, and transportation routes in the region. Recognizing the Arctic's increased significance, Chinese leaders have sought to establish a footprint in the region. Most observers argue that China's interest in the Arctic has largely been driven by the need to support their energy requirements and designs for global commercial expansion.[2] Lacking physical territory in the far north, Beijing is building a presence in the region through engagement with multinational institutions, economic investment in Arctic states, and scientific activity. These efforts have been designed to integrate China into the Arctic "status quo" to build a position from which to better leverage the Arctic's commercial benefits.[3]

Historically, China's engagement in Arctic institutions reflects a desire to integrate into regional governing bodies, while advocating for an increase in the status of non-Arctic states in these organizations. In 2013, China was granted observer status in the Arctic Council.[4] The Arctic Council, the region's most robust multinational organization, is a forum for international collaboration on human development, progress on environmental issues, and scientific research between Arctic states, indigenous groups, and interested observers.[5] China's po-

sition as an observer allows it to participate in the council's deliberative process, but decision-making authority resides ultimately with the member states: the Arctic states Canada, Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden, and the United States. Beijing has sought to mitigate this separation by shoring up its own Arctic identity, and by highlighting the importance of Arctic issues for states outside of the region. For example, China's 2018 Arctic policy white paper, Beijing's clearest blueprint for its Arctic ambitions, defines itself as a "near-Arctic state" and advocates for greater influence in issues "vital to the existence and development of all countries and humanity," including scientific research, resource exploitation, security, and global governance.[6] By claiming its own Arctic identity and focusing on the global implications of Arctic developments, Beijing has sought to use multinational institutions to establish its presence in the region.

In addition to diplomatic engagement, China's Arctic strategy has been predicated on investments in economic development projects in key Arctic states. The philosophy behind this effort is again laid out in Beijing's 2018 white paper. It presents the creation of a "Polar Silk Road," modeled on the "One Belt, One Road" strategy of economic expansion through global infrastructure development.[7] This polar addition would focus on developing infrastructure in Arctic states to facilitate China's commercial expansion. In practice, Beijing has implemented this policy through major investments in energy and other related economic projects in Arctic states. During the past decade, Chinese companies have sought to cement economic ties to a variety of Arctic states through infrastructure projects, such as the Isua Iron Ore Mine, the Kvanefjeld rare earth project in Greenland, and various mining and energy projects in Canada.[8]

China has routinely had the greatest success pursuing these infrastructure projects in Russia. The Yamal liquid natural gas (LNG) project, in Russia's energy-rich Yamal Peninsula, illustrates this economic cooperation. The project was completed in 2017 by Russian company Novatek with 20 percent of its funding from Chinese companies, to include less than 10 percent directly from the Chinese Silk Road Fund.[9] Now operational, it ships LNG primarily to Asian markets, and Beijing considers it an "anchor" to future increased commercial expansion in the region.[10] Subsequent projects, ranging from development of the Payakha oilfield to technical collaboration on the development of icebreakers, illustrate the depth of growing Sino-Russian cooperation in the region.[11] For Beijing, infrastructure investment and economic cooperation with Arctic states through the "Polar Silk Road" project provide the opportunity to secure greater influence in the region despite its lack of Arctic territory.

Beijing has long seen scientific research as a gateway to gain greater access in the region and familiarity operating under its challenging natural conditions. Its 2018 Arctic white paper stresses that "scientific research in areas under the

jurisdiction of Arctic States should be carried out through cooperation" and that "all States have the freedom of scientific research on the high seas of the Arctic Ocean."[12] In 2004, it established the Arctic Yellow River Station in Svalbard, a hub of scientific activity that gave Chinese scientists experience living and working under Arctic conditions year-round while conducting strategically important work like satellite monitoring.[13] Beijing's scientific pursuits have also helped enable their economic activity in the Arctic. Polar scientific research by the *Xue Long*, which until 2019 was Beijing's sole operational icebreaker, provided China with invaluable experience conducting maritime operations in the high north, which helped enable infrastructure development projects and maritime transit expansion in the region.[14] Additionally, scientific activity has been a primary method through which China has established a position in multinational governing organizations. Beijing has long described its polar scientific research as the foundation of its "right to speak" on regional matters.[15] This ongoing Arctic research was a key source of leverage as it sought admission to the Arctic Council, with Chinese leaders claiming interest in the region through the country's scientific pursuits.

For the past decade, Beijing has sought to establish its economic and diplomatic presence in the far north to gain access to Arctic resources. Throughout that period, Chinese leaders have pursued this goal by expanding its influence in regional multinational organizations and investing in Arctic infrastructure, all bolstered through scientific research projects. However, Russia's 2022 invasion of Ukraine triggered major disruption to the geopolitical environment in the Arctic, which has provided new opportunities for Beijing to pursue its objectives in the region.

Chinese Arctic Activity Following the Russian Invasion of Ukraine

China's Arctic policy during the past decade can generally be characterized as expanding influence and entrenching its presence in the region through economic and political mechanisms. Given this framework, Russia's 2022 invasion of Ukraine has disrupted the status quo in a manner that has provided Beijing important new opportunities to pursue its long-term goals in the region. Moscow's aggression was swiftly met with political condemnation and economic sanctions, driven largely by the United States and its allies in Western Europe. This backlash disrupted many of the normal cooperative trends in the Arctic. In March 2022, the seven non-Russian permanent members of the Arctic Council condemned Moscow's war in Ukraine and suspended the organization's activities, freezing the work of the most substantial multinational organization in the region.[16] Concurrently, a series of sanctions packages driven by the United States and Western Europe have reduced Russia's access to foreign investment

in Arctic infrastructure, and potentially reduced the commercial benefits of its Arctic energy holdings by restricting access to Western markets.[17]

The result of Moscow's diplomatic isolation and economic disruption has been a desire to increase connections with non-Arctic partners in the region. Russia's March 2023 *Concept of the Foreign Policy of the Russian Federation*, which defines Russia's new foreign policy strategy a year out from the invasion, outlines this shift. The document's discussion of the Arctic—which, perhaps tellingly, appears just above a section on Eurasian affairs that demands "strengthening . . . strategic cooperation with the People's Republic of China"—calls for "establishing a mutually beneficial cooperation with the non-Arctic states pursuing a constructive policy toward Russia . . . including developing infrastructure of the Northern Sea Route."[18] This new policy document signals Moscow's desire to open up to greater ties with non-Arctic states that have been less critical of its militarism in Europe, thereby compensating for the post-invasion disruption to its economic and diplomatic posture in the high north. China, having long sought opportunities to expand their access to the region, is well positioned to take advantage of this new Russian outlook.

In response to Russia's invasion of Ukraine, many countries, particularly the United States and those in Western Europe, have sought to restrict their imports of Russian energy. The impact was pronounced in the immediate aftermath of the invasion, with Russian exports of seaborne oil dropping by 15 percent due primarily to reductions in imports from the United States and the European Union.[19] Moscow scrambled to offset this export drop by strengthening its commercial ties to countries more friendly to its aggression in Ukraine. The result was an 11 percent increase in oil exports to China by the end of June 2022.[20] For Russia's Arctic economy, which relies heavily on crude energy exports, this increased reliance on Chinese markets will notably strengthen Beijing's ties to the region.

In addition to its increased need for Chinese markets post-invasion, Moscow has become increasingly reliant on Chinese support for infrastructure development and for help evading sanctions. Prior to the invasion, Novatek sought to increase its LNG production in the Yamal Peninsula through a new infrastructure project called Arctic LNG-2. More than 20 percent of the project's total investment came from Chinese firms, while 10 percent came from France's TotalEnergies and critical engineering and technical support came from German, Norwegian, and Italian firms.[21] Following the invasion, TotalEnergies retracted all funding, and many of the European engineering and design firms withdrew support, which halted the project's progress. However, sustained investment from China, as well as the substitution of Chinese technology for sanctioned European engineering support, allowed the project to come online in December 2023 and has allowed for additional growth in infrastructure as of

July 2024.[22] This post-invasion economic cooperation appears to be continuing to expand, with Moscow and Beijing signing a new agreement on the development of a titanium mine in the Russian Arctic in February 2023.[23]

Chinese leaders have long sought to use investment and infrastructure development to establish a presence in the high north. Moscow's need for export markets and economic support to offset the effects of Western sanctions has provided Beijing with an opportunity to expand its access to the Arctic economy through Russia since February 2022. However, this Sino-Russian economic alignment also appears likely to enmesh Beijing in the post-invasion tensions in the region. Many observers suggest that the NATO-member Arctic states may become more wary of Chinese investment due to China's warm relationship with a militant Russia.[24] This skepticism from NATO's Arctic states, however, has so far been offset by the benefits of new investment opportunities in Russia. Additionally, the disruption to normal trends in the region has opened new opportunities for Beijing to secure a political role in the region.

The war in Ukraine placed significant stress on the multinational institutions that have long fostered cooperation in the Arctic, most notably the Arctic Council. This disruption to the status quo has provided Beijing with new outlets to establish a diplomatic presence in the region. For the past decade, Chinese leaders have seen their country's status as an Arctic Council observer as key to its identity as a viable actor in the region. From that position, they have routinely sought to promote the capacity of non-Arctic states to exert influence in the region.[25] The deepening Sino-Russian partnership following the invasion of Ukraine has provided Chinese leaders with new opportunities to build bilateral ties with Moscow on Arctic issues, opening new venues for Beijing to foster its political influence in the region. In October 2022, China's special envoy for Arctic affairs stated that China could not recognize the legitimacy of the Arctic Council without the inclusion of Russia, signaling an interest in developing alternate governing institutions in the region.[26] In March 2023, Beijing and Moscow agreed to the creation of a working group to develop the Northern Sea Route, illustrating their interest in developing new bodies through which to manage Arctic affairs.[27] Beijing has historically sought recognition from multinational Arctic institutions to bolster China's legitimacy in the region and to provide venues through which to influence Arctic affairs. The post-invasion disruption to Arctic governance, and Moscow's ensuing isolation, has given Chinese leaders new opportunities to advance this goal, as Russian leaders have looked to enhance bilateral institutional ties with states more friendly to their aggression in Ukraine.

During the past decade, China has worked to gradually increase its economic power and political influence in the Arctic. Russia's 2022 invasion of Ukraine offered a disruption to Arctic trends that has provided Beijing with

new opportunities to pursue its agenda in the region. Shocked by international sanctions, Moscow has increasingly come to rely on China as an energy export market and an investor and technical partner in Arctic infrastructure projects. This shift has provided Beijing with new mechanisms to advance their economic presence in the region. Additionally, disruptions to Arctic governing regimes and Moscow's need for new partners in the region have given Chinese leaders the chance to establish new diplomatic institutions in the region. These shifts will provide Beijing with important new outlets to continue to expand their presence in the Arctic.

Security Implications of China's Arctic Expansion

The deepening of Sino-Russian cooperation in the Arctic, and Beijing's newfound opportunities to advance its goals in the region, will pose a distinct security challenge to the United States and its allies. The deepening of ties between Beijing and Moscow, while primarily economic and diplomatic, has come to include military cooperation as well. In addition to the combined patrol between Chinese and Russian bombers near Alaska in July 2024, the two militaries conducted Joint naval patrols off the Alaskan coast in 2022 and 2023.[28] This military cooperation in the high north can be expected to increase as Russia and China strengthen ties through other means in the region. In this reshaped Arctic security environment, leaders in the United States need to expect more frequent, and more complex, contact with Chinese military capabilities in the far north. It will be critical for the United States and its allies to respond to these challenges in a way that keeps the risk of outright conflict low, while ensuring their continued defense in the region.

The expansion of the Sino-Russian partnership displays China's increasing willingness to employ military capabilities in the Arctic. This trend poses a particular strategic concern when coupled with China's economic growth in the region, as Beijing has a variety of policies in place to blend civilian assets and military capabilities. Their often-cited doctrine of "civil-military fusion" authorizes the Chinese Communist Party to co-opt any research, technology, or intellectual property from civilian scholars or private industry to use for military development.[29] This doctrine raises concerns over the militarization of Arctic research and the military application of Arctic-capable technology.

Similarly, a trademark of the "One Belt, One Road Initiative" (BRI) elsewhere in the world is the concept of "dual-use facilities." Beijing markets these infrastructure projects abroad as economic developments; however, Chinese leaders ensure that they are designed and positioned in ways that enable their use as military facilities. In extreme cases, Beijing has attempted to covertly construct military facilities inside of BRI-funded civil infrastructure, as seen in 2021 when the United States uncovered Chinese attempts to build a naval fa-

cility inside a shipping port in the United Arab Emirates.[30] Experts have already seen indications of Chinese-backed infrastructure projects in the Arctic serving "dual-use" purposes.[31]

In addition to concerns over civil-military fusion and dual-use infrastructure projects, Chinese leaders present another challenge to assessing their military activity in the region. When outlining their policy for the polar regions, Chinese leaders present a strategy called "Military-Civilian Mixing." It states that "military power and civil power should be closely integrated" to enhance military capabilities and "safeguard the country's interests" without provoking international concern.[32] Additionally, it calls for increasing the use of military forces in the polar regions for "non-war military operations" like search and rescue.[33] This close integration of military and civilian assets, and the more frequent use of Chinese military capabilities for operations outside of armed conflict, will pose complex challenges for the United States and its allies. American leaders need to be prepared for more frequent contact with Chinese military forces in the Arctic. They also need to be able to monitor and assess the nature of China's activity in the region to be ready to respond in a manner that balances the necessity of national defense without inadvertently escalating tensions closer to armed conflict.

Chinese military partnerships with Russia in the Arctic, coupled with policies blending civilian and military activity, have allowed Beijing to start to advance its military capability in the region. This development deserves particular attention from leaders in the U.S. defense community. Throughout the Cold War, American and Soviet planners both saw the Arctic as one of the most viable access points to launch attacks into their adversaries' territory. Chinese military activity in the high north is again bringing attention to the region's strategic importance. In January 2023, in a high-profile incident in which China deployed a high-altitude surveillance balloon to collect information on key American military sites, the balloon entered American airspace at a point just north of the Aleutian Islands in Alaska.[34] This rather unique intelligence operation has been coupled with an increase in more conventional Chinese military activity in the region. Beijing has partnered militarily with Moscow in large-scale exercises like Vostok 2018 and Vostok 2022, which included Arctic maneuvers.[35] NORAD's July 2024 intercept of Chinese and Russian bombers operating in partnership near Alaska represented a next step in the expansion of Chinese military activity in the Arctic. American strategists need to anticipate an increase in contact with Chinese military assets in the Arctic, and to understand Beijing's deliberate efforts to blend these military capabilities with civilian activity.

The Sino-Russian military cooperation that grabbed headlines in July 2024 appears to fit a pattern of increasing cooperation between Beijing and Moscow during the past two years. However, this pattern was certainly not preordained.

Despite a history of collaboration between the two countries, Moscow has historically been wary of increases in Beijing's Arctic power. Russian leaders know that opening the region to powerful non-Arctic states will reduce the relative influence of eight Arctic states and will limit the benefits of Russia's Arctic territorial holdings.[36] However, Moscow's wariness of Chinese Arctic activity appears to have been overtaken by their need for international partners in the aftermath of their invasion of Ukraine. Russia's aggression in Eastern Europe opened new outlets for Beijing to pursue its agenda in the high north, and the results may permanently reshape the Arctic security environment and present the United States with a new strategic adversary in the region.

China's Arctic strategy has historically been predicated on economic growth through infrastructure development, integration into regional governing organizations, and the use of scientific research to bolster their legitimacy. Following the Russian invasion of Ukraine, Chinese leaders have benefited from Moscow's isolation to further advance this agenda. As part of this tightening of Sino-Russian relations, Chinese military activity in the high north has expanded. None of these developments suggest an imminent risk of armed conflict in the region, and overall, the risk of such a conflict appears to remain low, but this shift will present complex new challenges to American defense leaders. The United States and its allies need to be prepared to factor direct military partnerships between Moscow and Beijing into their assessments of Arctic security. They need to be aware of the potential "dual use" military applications of commercial facilities in the region and the diverse use of military assets through "military-civilian mixing." Finally, they need to be prepared for increased contact with Chinese military assets in the Arctic as leaders in Beijing attempt to normalize their military presence in the region. While the impacts of the war in Ukraine can be seen most prominently in Europe, American leaders cannot allow themselves to ignore the changes that it has triggered in the Arctic security environment as China increases its presence in the far north.

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NATO's Long Cold Front
Why NATO Must Reorganize Its Approach to Defending the European High North

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Abstract: The North Atlantic Treaty Organization (NATO) faces strategic vulnerabilities in the European high north due to growing Russian and Chinese collaboration. Leveraging scenario planning and enhanced integration of Nordic capabilities into Joint Force Command Norfolk is recommended to bolster Arctic deterrence. Clarified command structures, specialized polar-warfare units, targeted infrastructure investments, and expanded Joint exercises are essential. This would strengthen NATO's Arctic posture, ensuring regional stability and enabling the U.S. strategic pivot toward countering China's growing global influence in the Indo-Pacific.

Keywords: strategic competition, China, Russia, polar warfare, Arctic, cold weather operations, NATO, combined Joint forces

The 2022 Russian invasion of Ukraine reshaped NATO's strategic calculus in the European high north. Finland and Sweden abandoned neutrality to join NATO, extending a NATO border with Russia. At the

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same time, Vladimir Putin and Xi Jinping's "no limits" partnership has demonstrated remarkable "resiliency" despite obvious stressors.[1] Additionally, China, Iran, and North Korea are increasingly supporting military actions in Europe.[2] The altered strategic environment in NATO's European high north demands reorganization and integration with broader geopolitical trends.[3] The full-scale invasion of Ukraine shattered long-held assumptions about European stability and reminded NATO that hard power coercion can still redraw borders. The vulnerability of NATO's eastern flank demonstrated that the alliance cannot afford strategic blind spots, especially in the Arctic, where Russian and Chinese activities could similarly exploit NATO's reactive posture.

Russia has sustained and even increased its military investments in the Arctic despite military operations in Ukraine.[4] Russia's resurgence and ambition is to reclaim a historical sphere of Arctic hegemony, which included the symbolic 2007 planting of a Russian flag at the North Pole seabed. Russia demonstrates its Arctic militarization through deployments of advanced antiaccess/area-denial (A2/AD) missiles, airborne operations, an expanded icebreaker fleet, and refurbishment of Soviet-era dual-use bases.[5] Additionally, Finnish military intelligence believes "the Northern Fleet's 14th army corps will be expanded into a full army."[6]

The European high north does not exist in a geopolitical vacuum—the United States and its allies must give it greater consideration. One report emphasizes that for Russia, "the Arctic represents a strategic continuum stretching from the North Atlantic to the North Pacific, with the North Pole approaches in the middle. Thus, Moscow understands the Arctic in circumpolar terms," meaning Russian thinking is beyond the European high north.[7] Likewise, U.S. interests in the Arctic span three geographic combatant commands: U.S. Indo-Pacific Command, U.S. Northern Command, and U.S. European Command.

A 2025 U.S. Naval War College report asserts that rising Chinese interest in the Arctic should concern the West.[8] China's disregard for international laws and norms in the South China Sea raises legitimate concerns about China's growing collaboration with Russia in the Arctic under the guise of its self-proclaimed "near-Arctic state" status.[9] Recent Chinese military activities demonstrate increased capability to operate in the Arctic and include joint naval and air patrols with Russia into the Alaskan Air Defense Identification Zone (ADIZ) and U.S. exclusive economic zones (EEZs).[10] While relatively minor moves, growing Sino-Russian cooperation requires a NATO response. The former U.S. deputy assistant secretary of defense, Iris A. Ferguson, characterized Chinese and Russian moves as "unprecedented."[11] Likewise, no one expected North Korean troops intervening in a European conflict with their Russian allies before November 2024.

China and Russia are expanding Arctic cooperation in space-based infrastructure to enhance multidomain operations and command-and-control capabilities. The development of parallel yet cooperative navigation networks (Russian GLONASS or global navigation satellite system and the Chinese Bei-Dou system) through the hosting of mutual infrastructure, hardware, and networks indicates shared interests in sustaining communications, capability, and resilience across the Arctic and in the space domain.[12]

Some scholars highlight increasing competition in the Arctic and urge policymakers to pivot resources and policies to address growing Russian and Chinese threats, while others see stability but acknowledge risks.[13] Sigbjørn Halsne asserts that potential risks merit study.[14] NATO's European high north faces strategic vulnerabilities, notably including the absence of an integrated strategy and defense presence.[15] Additional debate remains on the idea of Arctic exceptionalism—the idea that the Arctic is insulated from war and competition in the lower latitudes.[16] Others argue that Arctic exceptionalism is dead since Russia's 2022 invasion of Ukraine.[17]

The changing environment is most evident in the 2024 *Department of Defense Arctic Strategy*, which acknowledges the growing geopolitical problem: "activities in the Arctic will be calibrated to reflect a 'monitor-and-respond' approach" allowing the U.S. military to "deploy the Joint Force globally at the time and place of our choosing."[18] The new U.S. strategy makes clear that NATO allies will be critical for maintaining Arctic security and defense in light of growing Sino-Russian activities in the Arctic.[19] This strategy represents both continuity and change—emphasizing cooperation with allies while highlighting increased competition with Russia and China.[20] The U.S. strategy provides a crucial window into how NATO might be steered in the coming years.

NATO has consistently recognized the strategic importance of the Arctic, including an emphasis on defending Norway, monitoring the Greenland, Iceland, United Kingdom, and Norway (GIUK-N) gap, and protecting the North American homeland. However, there is a pronounced disparity between NATO rhetoric and actionable policies. Despite possessing the largest military within NATO, the United States has a limited number of polar-capable forces.[21] Additionally, being capable of countering Arctic aggression means NATO needs to specialize in niche forces "capable of enduring prolonged engagements in harsh polar conditions."[22] NATO also "faces specific challenges in Arctic naval readiness, particularly in ice-capable vessels and icebreakers," with NATO having no more than 35 icebreakers combined, whereas China and Russia have 49 total icebreakers collectively.[23] Thus, what can Arctic NATO powers (and Arctic-minded members such as the United Kingdom) do to address the multiple vulnerabilities the alliance faces in the Arctic, especially northern Europe?

Becoming proficient in conducting Arctic warfare requires special train-

ing, equipment, and dedicated forces.[24] Moreover, even when Arctic proficiency is achieved, maintaining year-round polar combat readiness is difficult due to the unique Arctic challenges associated with winter, spring, summer, and fall.[25] With all Nordic countries formally allied under the umbrella of NATO, there is an opportunity for NATO to address the strategic needs of the European high north. Given that Nordic countries specialize and excel in cold weather warfighting abilities, their qualitative advantage in polar combat translates into a critical node of Arctic capabilities and expertise.[26] However, even with Nordic countries possessing this key warfighting advantage, there are capability gaps across NATO. Countering potential Russian aggression (and growing Chinese collaboration) in the Arctic region means NATO must be able to capably conduct these types of polar operations: long-range fires, multidomain awareness, air defense, attack aviation, amphibious operations, sustainment, and follow-on resilient forces capable of enduring prolonged engagements.[27] Such NATO forces should be placed under resilient command-and-control (C2) nodes and operated by fully manned staffs, employing modern, redundant C2 systems, resistant to point attacks, and capable of dispersed operations.

To address such gaps, the authors theorize various solutions to the NATO Arctic problem through the gedankenexperiment (thought experiment) approach. By assessing and thinking through three different concepts that address Arctic challenges for NATO, this analysis helps establish the best organizational course of action for NATO:

1. *Enhance NATO Joint Force Command (JFC) Norfolk with Nordic Nations for Arctic Defense.* This preferred option capitalizes on existing Nordic capabilities and collaboration, such as their proficiency in cold-weather operations and knowledge of the Arctic terrain. The inclusion of Finland, Norway, Sweden, and Denmark would ensure rapid deployment and effective response to threats, bolstered by NATO's logistical and technical support.
2. *Whole-of-NATO effort with U.S. leadership.* Such an approach would bring substantial resources to bear. However, this option requires the United States to develop and maintain additional specialized Arctic units, which is a resource-intensive process. It would also require a major revision to the global force management process. A U.S.-led NATO Arctic rebalance would mean the United States would be unable to meet current challenges and threats in the Indo-Pacific, European theater, and Middle East.[28]
3. *European Union (EU)-led Combined Joint Expeditionary Force.* As the least preferred option, this possibility lacks the cohesive command structure and established Arctic expertise present within NATO. While Brussels has an EU military headquarters, known as the Military Plan-

> ning and Conduct Capability (MPCC), recent interviews with MPCC personnel indicate little political willpower or interest to defend the Arctic, especially given preoccupation with training and equipping the Ukrainian military against Russia and other EU-led naval operations in the Mediterranean, Red Sea, and Indo-Pacific.[29]

Common to all these options, a preplanned deescalation playbook, coupled with secure communication to Russian and Chinese headquarters (military and political), could help defuse inadvertent escalation and preserve beneficial aspects of peacetime operations in close proximity (e.g., Arctic search and rescue, undersea mapping and exploration, etc.). The establishment of a dedicated multinational NATO European high north military force, inclusive of specialized marine, naval, air, and special operations components, would strategically counterbalance Russia's expanding military footprint in the Arctic—and any future aggression in the region. Thus, an enhanced JFC Norfolk responsible for the defense of NATO's European high north would not only reinforce the alliance's capacity for mutual defense under Article 5 but also signal collective unity and resolve against Russia and China. In addition, NATO needs an integrated Arctic strategy for both the European high north as well as the North American Arctic.[30] At the same time, NATO members need to scale up force generation and capabilities including A2/AD, anti-A2/AD, attack aviation, ice capable ships, long-range fires, multidomain awareness, Arctic trained troops, and specialized Arctic mobility.[31]

By using the gedankenexperiment approach to the organizational challenge of addressing Arctic security, this article proceeds as follows. First, the authors contextualize the rationale for NATO having to refocus its strategy and resources toward polar warfighting capabilities. Second, the authors emphasize the need for NATO to establish Arctic deterrence by dedicating enough forces and resources to ensure an adversary does not attempt to forcefully dominate the region. Third, the authors utilize an established futurist research method to generate three Schwartz future Arctic scenarios via ChatGPT that are used as a framework for analyzing the best organizational approach for NATO to address growing Arctic security concerns.[32] From these three scenarios, the following section identifies the current NATO Arctic structure and then considers the best option for defending northern Europe. The final section concludes with how an enhanced JFC Norfolk would be best organized along ground, maritime, and air components of NATO forces.

A Contextualization of NATO's European High North as an Area of Interest

NATO's European high north now extends from Finland to the GIUK-Norway

gap. Finland's ascension to NATO increased NATO's direct land border with Russia from 1,213 to 2,549 kilometers. The Greenland, Norwegian, and Barents Seas all border NATO's European high north and are strategically important to both NATO and Russia with generally navigable waters due the Gulf Stream currents. Additionally, the Baltic and North Seas are strategically vital for Russian movement of forces and trade due to their proximity to the GIUK-N gap and Russia's naval bases in both Kaliningrad and St. Petersburg. Thus, the area of interest (AOI) for this article is the land border between Russia and new NATO lands and waters that extend from Finland to Norway and the Baltic, North, Greenland, Norwegian, and Barents Seas to the north.[33]

NATO's European high north AOI is an environment of harsh extremes. Much of it lies above the Arctic Circle and its erratic weather makes military operations difficult, especially as climate change accelerates.[34] The Arctic is "a challenging environment for military forces. Some of these Arctic challenges include remoteness, lack of infrastructure (e.g., domain awareness, transportation, ports, communications, weather forecasting, etc.), and ionospheric effects impeding communications.[35] Thus, NATO's European high north AOI requires special preparation and planning to ensure NATO can deter adversaries, respond to crises, and fight and win in this unique environment.

NATO's European high north AOI is an area with historic strategic importance from the Russian Civil War through the Cold War.[36] Today, the vast majority (7 of 12) of Russia's ballistic missile submarines (SSBNs) are stationed on the Kola Peninsula.[37] This is in addition to investments made prior to the 2022 invasion of Ukraine, which included the reopening of multiple Soviet-era bases, testing and fielding of hypersonic missiles, and undersea drones that are nuclear powered.[38]

Although Russia is economically and militarily weakened in 2025, it remains a credible threat in the Arctic. Per Colin Wall and Njord Wegge, "Russia's military interests in the Arctic are ostensibly defensive," nevertheless Russia remains committed to potential offensive operations in the European high north.[39] The Arctic remains essential to Russia's ability to project power.[40] During any conflict with NATO, Russia's Northern Fleet would aim to disrupt NATO's sea lines of communication in the GIUK-N gap.[41] Additionally, Russian forces could attack and attempt control or deny access to key territory on land and at sea in support of its bastion concept.[42] Russian bastion concept goals are to establish a secure "perimeter around the Kola Peninsula, which hosts the Northern Fleet" and ensure "unhampered access to the Northern Atlantic."[43] A recent NATO wargame involving a hypothetical Russian incursion into Finnmark—the Norwegian territory that borders Russia—demonstrated that Russia has numerous short-term advantages in such a scenario due to the United States and the rest of NATO lacking sufficient numbers of Arctic

capable forces relative to Russia.[44] For instance, it has been documented that American and British aircraft carriers and other naval vessels have struggled to operate in the Arctic Circle in winter due to the buildup of ice on flight decks and damage caused by sea ice.[45]

Any incursion into NATO territories around the Arctic Circle would frustrate U.S. and NATO planners and policymakers due to limited deployment capabilities in a highly contested environment due to advanced Russian A2/AD systems.[46] Additionally, NATO lacks Arctic-ready forces, meaning it would be caught flat-footed in a crisis and would have to rapidly establish a calibrated defensive force while likely addressing other threats in Central and Southern Europe, along with matching global Russian threats (e.g., Russian capabilities in Kamchatka and the Kuriles).[47] This would be initially difficult to generate because the U.S. and NATO members are using their forces and resources to sustain Ukraine's military, while also trying to strategically pivot to the growing threat of China in the Indo-Pacific.

Deterrence and the Future of NATO's European High North Area of Interest

Given the stated strategic "end" of NATO to "deter" Russian (and potentially Chinese) forces in the Arctic and to protect the sovereignty and EEZ of each Arctic NATO member, the United States and the rest of the alliance must have dedicated polar capable forces. This means enhancing NATO's JFC Norfolk with highly capable combined Joint forces that can conduct missions in the Arctic Circle year-round. An Arctic focused component of JFC Norfolk's strategic mission would give Arctic-minded members, especially Nordic countries, an opportunity to lead NATO in the defense of the Arctic region. Relying on Nordic expertise, other NATO countries could contribute properly funded and resourced forces to JFC Norfolk to become proficient and capable in Arctic warfighting. Finally, an Arctic rebalance of NATO forces would bring equilibrium to the region as Russia would be less likely to escalate, knowing that cold weather capable NATO forces could match and counter Russian aggression.

To understand the future operational environment, the authors use an "alternate futures" method via discrete scenarios to provide context for future force planning.[48]

Future Scenarios Generated for the NATO Planner

The Art of the Long View by Peter Schwartz provides planners with a standardized process to prepare for contingencies by developing three likely scenarios to guide decision-making for "plausible futures."[49] The authors queried ChatGPT, "Can you outline a speculative future for a NATO planner looking at the Arctic security environment in 2030, focusing on Chinese and Russian threats, using Peter

Schwartz's scenario planning methodology?" This method leveraged emerging research supporting artificial intelligence (AI) as an effective tool for generating unique insights when guided by well-crafted prompts. [50] ChatGPT generated three scenarios that we have condensed and edited for clarity and emphasis.[51]

Potential Arctic Security Scenarios in 2030: Chinese and Russian Threats

Through the Schwartz futurist lens, there are three likely Arctic scenarios that can be each uniquely described as: "strategic cooperation," "cold competition," and "escalating conflict."[52] Each scenario is listed below:

1. *Strategic cooperation*—Russia and China solidify a strategic partnership driven by geopolitical alignment, resource exploitation joint ventures, and the shared military objective to challenge NATO and the West. They collaborate on major dual-use infrastructure projects while becoming a united front against NATO.
2. *Cold competition*—Russia and China independently compete for Arctic dominance. Each aggressively pursues natural resources and asserts economic influence while expanding military capabilities. The resulting rivalry results in strategic posturing, diplomatic tensions, and hybrid warfare, thus complicating NATO's need to secure the European high north.
3. *Escalating conflict*—Tensions driven by territorial disputes, resource competition, and strategic calculations escalate between Russia, China, and NATO, leading to frequent confrontations between Russia, China, and NATO. Russia and China, driven by resource needs and strategic ambitions, frequently clash with NATO forces over territorial waters, shipping lanes, airspace, and land, with each side taking casualties and risking a broader conflict.

Implications of 2030 Future Scenarios

Schwartz's scenario planning methodology means that NATO planners must prepare for a range of potential future scenarios in the Arctic, given the range of specific threats posed by Russia and China. While each scenario requires different strategic priorities and operational preparations, NATO can take the following actions to defend the European high north, including investments in C2, intelligence, military presence, alliance building, and Arctic-specific capabilities. NATO must adopt a new European high north outlook, increasing Joint cold-weather exercises, developing a comprehensive Arctic warfare doctrine and strategy, and expanding Arctic-capable forces while continuing to establish and refine rapid de-escalation protocols to counter threats, manage crises, and deter provocations.

Militaries without the proper training and weapons systems will face numerous issues and failures if deployed to the harsh Arctic environment. If these unprepared military forces survive an initial conflict, they might develop and refine ad hoc polar warfighting abilities "in contact." Flexible force planning that can address these multiple scenarios can set the proverbial "chessboard" ahead of time to provide the maximum number of forces available, given resource and infrastructural limitations in the region. Regardless, each of these futuristic scenarios illustrates why NATO must formulate a strategic plan now to ensure there are enough Arctic capable forces to deter and fight credibly.

NATO's Current Focus on the European High North

Given the three Arctic security scenarios in 2030 generated in this analysis, U.S. and allied planners must develop force generation and employment plans that can meet the strategic ends (and the operational goals) to counter Russia (and Chinese collaboration), while minimizing risks to NATO. Given the challenges facing NATO in the European high north, planners must consider how best to organize a resource-constrained region (e.g., population, equipment, budget, etc.) as well as the global commitments of some allies (e.g., the United States) to develop an effective set of headquarters, units, and Joint capabilities.[53]

NATO's Supreme Allied Commander–Europe (SACEUR) and the Supreme Headquarters Allied Powers–Europe (SHAPE) area of responsibility (AOR) extends from the northern waters of Norway to the Canadian Arctic region and the vast maritime space in between. Subordinate to SHAPE are functional theater component commands and three regional Joint Force commands (JFCs). With Finland and Sweden joining NATO, the Arctic region is now divided between JFC Norfolk (Atlantic, GIUK-N gap, Norway) and JFC Brunssum (Sweden and Finland). NATO's Allied Maritime Command acts in a supporting relationship with the JFCs and provides naval forces that operate in the Atlantic Ocean region, North Sea, and Baltic Sea regions. Likewise, NATO's Allied Air Command is in a supporting relationship and provides land-based aircraft in support of the JFCs. NATO's Allied Land Command (LANDCOM) ensures the readiness of land forces that are then transferred to the operational control of the JFCs. In this regard, LANDCOM in coordination with the nations must provide separate force elements to support both JFC Norfolk and Brunssum in the Arctic region. NATO's current command and force structure provide the analytical foundation for the proposed recommendations discussed next.

Options to Address the Arctic Threat

The potential options to address the potential future scenarios for strategic cooperation, cold competition, and escalating conflict are two NATO solutions

and one EU solution. The most preferred option is a Nordic-led Combined Joint Expeditionary Force (CJEF) under NATO, empowering them to lead Arctic defense efforts with NATO support.

NATO has more than seven decades of experience deterring Russia (or the Soviet Union). A Nordic-led CJEF ensures NATO readiness against Russia's threats and China's rise. An enhanced JFC Norfolk that is grounded in European military power and logistically backed by America ensures European leadership in European defense. As Sten Rynning asserts, NATO's European powers must lead due to political pressures from isolationists in the United States that contend the Europeans are free riders that need to spend more on defense.[54]

Option One: Enhanced JFC Norfolk

An enhanced JFC Norfolk is the best option to secure NATO's European high north AOI. As the Department of Defense's recent *2024 Arctic Strategy* notes about Arctic NATO members: they "possess highly capable militaries, and thanks to longstanding cooperation, are all highly interoperable. NATO's enlargement, in addition to increasing Nordic defense cooperation, will create new opportunities for combined planning, information sharing, and exercises that will expand regional collaboration."[55] In Europe, only NATO can lead a large military force for great power competition. Additionally, in an era of the United States being increasingly overextended—attempting to meet the long-term pacing challenge with China—NATO allies must take the lead. This enables the United States to execute its "monitor-and-respond" strategy.[56] Recent Chinese and Russian incursions into the U.S. and allied EEZs and ADIZs demonstrate the need for strategic flexibility.[57] The structure for a Nordic-led CJEF under NATO will be discussed in detail in the next section.

Option Two: Whole-of-NATO Effort with U.S. Lead

A U.S.-led NATO Arctic force would be the traditional answer to a European security problem. However, this is no longer politically or strategically feasible for the United States.[58] The latest U.S. national defense strategy and the Department of Defense's Arctic strategy do not support this course of action.[59] With dwindling resources, weapon systems, and personnel, the United States cannot fight more than a one-front war.[60] The growing threat of China and Russia (and Iran and North Korea) means the United States needs flexibility when committing forces. Hence, a European-led option is the most preferred choice since the United States cannot commit any more resources to the European high North AOI.

Option Three: European Union (EU)-led CJEF

Finally, the least preferred option would be an EU-led CJEF. Since 2003, the

EU has led more than 30 military missions (e.g., peacekeeping, foreign military training, and naval operations), but it lacks experience leading and executing large-scale combat operations. Worse, the EU lacks "mature command and control structures" outside of NATO, and these structures would be critical to lead a CJEF in the northern European front.[61] Additionally, as Katrina Engberg asserts, "Where the US and NATO intervened to terminate the Balkan wars, EU-led forces have constituted follow-on forces."[62] The EU lacks experience running high-intensity combat operations, but as their training mandate for Ukraine grows each year and as other expeditionary EU-led military operations expand in scope and scale, the EU might eventually—through its MPCC—be capable of leading bigger military operations to achieve their desired "strategic autonomy." While growing EU ambitions for strategic autonomy reflect positive burden-sharing trends, current capabilities remain limited without NATO's robust command architecture, operational scale, and integration with U.S. strategic planning. A future EU-led force may emerge, but in the near term, European defense still hinges on NATO's institutional muscle. Additionally, the complications of the UK "Brexit" from the EU produce political difficulties for one of the most experienced and capable Arctic-minded militaries. Similarly, with Norway lacking EU membership, both militaries would have difficulties participating in EU-led military missions, though both symbolically contribute some soldiers to the EU-led mission to train Ukrainian troops.

Proposed Structure of Enhanced JFC Norfolk

Currently, the Nordic region of Norway, Sweden, and Finland is divided between NATO's Joint Force Command Norfolk and Joint Force Command Brunssum, which prevents unity of command in the high north. To address the changes, Richard Hooker of the Atlantic Council recommended that NATO establish a Joint Force Command North (JFC North) that will include Finland, Norway, Sweden, and possibly Denmark to provide unity of command among the Nordic nations.[63] Enhancing JFC Norfolk with fully functional land, air, maritime, and special operations components, with allied formations such as the UK Joint Expeditionary Force (JEF), is preferable. JFC Norfolk would have two strategic missions: Securing the transatlantic lines of communications (LOCs) and securing NATO's high north. Therefore, JFC Norfolk's expanded mission can be built on the Nordic Defense Cooperation (NORDEFCO) foundation, which consists of Denmark, Finland, Iceland, Norway and Sweden with the objective of strengthening "participants' national defence."[64] JFC Norfolk would be the reporting headquarters for assigned land, maritime, and air component commands.

JFC Norfolk's Land Component Command (LCC)

JFC Norfolk, like its counterparts in Brunssum and Naples, has LCCs supported by NATO LANDCOM, headquartered in Izmir, Turkey. JFC Norfolk's LCC coordinate land operations across the high north consisting of the land forces from Finland, Norway, Sweden, and Denmark.[65]

Finland: Recently, the Finnish minister of defense announced that Finland will host a new NATO Land Component Command that will lay the foundation for the Nordic region and provide substance for the recommendation to enhance JFC Norfolk.[66] This proposal makes the most sense since Finland has an extensive land border with Russia in the high north, with Norway owning the extreme northern portion adjacent to the Barents Sea. Additionally, Finland maintains a comprehensive national defense plan that mobilizes its entire society and uses conscription and reservists to rapidly expand its armed forces in a time of crisis.[67] According to the International Institute for Strategic Studies *Military Balance* 2024, Finland maintains approximately 285,000 active and reserve army personnel.[68] While impressive, Finland has set out to invest more than $6.48 billion or 2.3 percent of GDP in defense spending to enhance its capability and capacity to serve as the LCC to provide sufficient forces to blunt a Russian incursion along NATO's eastern flank.[69] Finland has made recent commitments to increase its air defense capabilities to foster NATO interoperability by replacing Soviet equipment with Western systems.[70]

Norway: Norway is the primary land-based region under JFC Norfolk command and control. Norway's current land forces consist of 8,300 active soldiers, 800 Home Guard personnel, and 40,000 Home Guard reserve forces.[71] In 2024, Norway announced an increase of $60 billion over 12 years as part of its long-term defense plan to bolster its military capabilities to include significant investment in air defense.[72] Norway's increased military investment includes expanding its army from one to three brigades and increasing its Home Guard to 45,000 personnel.[73] The additional brigades will reinforce Norway's Finmark region that borders Russia and represents the most likely avenue of approach for a Russian incursion to secure the SLOCs for its northern fleet to move through the GUIK gap into the North Atlantic. Norway is both defended by (and hampered by) narrow ground LOCs that would be a challenge for both Russia and NATO in a ground war, especially in the isolated Finnmark region, as only one major road connects to the rest of Norway.[74]

Sweden: Sweden is currently part of JFC Brunssum AOR and has an active land force of 6,850 personnel organized in two brigade-size task forces.[75] Sweden recently announced an increase of $1.3 billion in defense spending to enhance its capabilities.[76] Additionally, Sweden intends to create two additional brigades along with the Gotland Island battlegroup that will fall under the command of a new Swedish division by 2030.[77] Sweden is positioned favorably with sizeable numbers of Finnish ground forces to its east and provides additional routes of reinforcement (land, sea, and air) for NATO forces operating in a potential crisis against Russia in the region.[78]

Denmark: Having been part of the JFC Brunssum AOR, Denmark provides the nucleus for NATO's Multi-National Division-North (MND-N), which operates in Poland and the Baltic states. Denmark's land forces consist of 8,000 active personnel organized in one mechanized brigade and 34,400 reserve personnel. Denmark has pledged to increase its defense spending to meet the 2 percent Madrid Summit NATO goal.[79] The Danish Straits are a critical maritime choke point between the Baltic Sea and the North Sea and provides both L/SLOCs between Central and Northern Europe that can help expedite the movement of forces and material. Denmark's ports, ferries, and bridges to Sweden also increase the ability of NATO forces to deploy rapidly from Central Europe or the continental United States. Denmark also maintains a small but significant Arctic security force (Sirius patrol) in Greenland, a potential source of trainers and best practices for other Arctic forces.[80]

Non-Nordic Partnerships: The two primary land-centric partners for LCC-North are the UK and the United States. The UK's Joint Expeditionary Force (JEF), founded in 2014, partners with Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, the Netherlands, Norway, and Sweden. The UK JEF initially focused on defense and security in the Baltic Sea region but has increased its focus on security in the high north.[81] U.S. European Command and two subordinate components, U.S. Marine Forces Europe and Africa (MARFOREUR-AF) and U.S. Army Europe and Africa (USAREUR-AF) have managed the U.S. relationship with the Nordic nations. MARFOREUR-AF has a long-standing relationship with Norway through exercises and the maintenance of its prepositioned stocks.[82] USAREUR-AF has been expanding its ties with the Nordic nations with rotational elements of the 10th Mountain Division, 11th Airborne Division (Arctic), and the

21st Theater Sustainment Command.[83] Such rotations have brought episodic competencies in cold weather warfighting, but without sustained commitments to maintain Arctic military readiness, such units will struggle to operate in a future Arctic crisis.

JFC Norfolk Air Component Command (ACC)

In March 2023, the Joint Declaration of Intent (JDI) was signed by Denmark, Finland, Norway, and Sweden. This cooperative JDI airpower agreement was built on the foundations of the 2009 NORDEFCO framework. With the JDI expected to move forward to operationalization, this would unify almost 250 Nordic combat aircraft under one regional command to defend the northern flank of NATO.[84] Interoperability and integration will become even more seamless as Denmark buys 27 Lockheed Martin F-35 Lightning IIs, Finland buys 65 F-35s, and Norway, with 34 F-35s already, will grow up to its goal of 52. This amount of fifth-generation stealth fighters will outnumber Russia, as Russia only has 15 Su-57s and is only expected to build up to 76 of them, giving NATO forces a sizeable stealthy advantage even without accounting for the United States and its 183 Lockheed Martin F-22 Raptors and 630 F-35s.

The Combined Air Operations Center (CAOC) at Uedem, Germany, is responsible for NATO air policing missions for all airspace north of the Alps. However, JDI members, including British and U.S. Air Force personnel—have established a temporary CAOC at Camp Bodin at Bodø Air Base to support northern flank military exercises, and a Nordic air operations facility in Reitan, Norway, to support peacetime air operations. The NATO North CJFACC would consolidate these agreements by ensuring that airspace around the northern flank and Nordic countries would fall within their AOI.

Russia for its part has two fighter airbases in Kaliningrad Oblast and another fighter airbase east of St. Petersburg, allowing Russian airpower projection into the Baltic Sea. Near the northern flank of Europe, Russia has a fighter and bomber airbase around Murmansk and at least 12 additional airbases inside the Arctic Circle. Such Russian airpower across the region poses a threat to most NATO bases and assets, but as Nordic countries grow their F-35 fleets and air defenses, this will give NATO a major upper hand. JFC Norfolk's CJFACC would need to be properly designed to conduct suppression of enemy air defenses to ensure Russia's current antiaccess/area-denial areas become permissive for NATO air operations in case of a future crisis.

JFC Norfolk's Maritime Component Command (MCC)

The primary naval threat in the NATO North AOI is the Russian Navy's Northern and Baltic Fleets. NATO North CJFMCC's primary mission would be to secure its SLOCs, ensuring the ability to support the land and air battle against

Russia in the NATO North AOI. Per the Department of Defense's *2024 Arctic Strategy*, "The Arctic serves as an avenue for power projection to Europe and is vital to the defense of Atlantic SLOCs between North America and Europe."[85] There are essential tasks for JFC Norfolk's MCC. First, the MCC must deny, degrade, and/or destroy the combat effectiveness of the Russian Northern Fleet. Likewise, during a NATO-Russia conflict, it is critical to ensure that the Baltic Fleet is unable to depart its ports in St. Petersburg, Kaliningrad, and Kronstadt. Second, JFC Norfolk's MCC must ensure open SLOCs in the North, Greenland, Norwegian, and Barents Seas to prevent Russia from implementing its bastion concept. Third, the MCC must have the ability to surveil and track the Russian SSBN fleet based on the Kola Peninsula to reduce the risk of strategic surprise while ensuring NATO's ability to operate freely in the European high north. Any engagement with Russian SSBNs carries significant escalation risks. Therefore, the MCC must carefully calibrate any engagements with the Russian SSBN fleet within the broader framework of NATO's deterrence and defense objectives.

NATO North CJFMCC should consist of the combined naval forces of the United Kingdom, France, Belgium, Netherlands, Germany, Denmark, Poland, Lithuania, Latvia, Estonia, Finland, Sweden, and Norway along with the Icelandic Coast Guard. This force mix leaves NATO with the formidable combined naval forces of Portugal, Spain, Greece, Italy, and Turkey to contain Russia's Black Sea Fleet.

The combined forces of JFC Norfolk's MCC would be a capable blue-water force, including 3 aircraft carriers, 16 destroyers, up to 41 frigates, 23 corvettes, 8 SSBNs, 12 nuclear-powered attack submarines (SSNs), 19 non-nuclear attack submarines, more than 50 mine countermeasures ships, and 11 amphibious ships.[86] While a formidable force, CFMCC would benefit from U.S. support to increase air defense, antisubmarine warfare, logistics/replenishment, and cyber and electronic warfare support. Additionally, currently available forces lack ice-capable ships and icebreakers—both would be crucial for successful operations in the NATO North AOI.

Potential Russian and Chinese Reactions to an Enhanced JFC Norfolk

Strategically, Russia and China would view a new NATO Arctic emphasis as hostile to their respective national interests in line with the three 2030 futurist scenarios. Russia has already proclaimed the development of a new military district, "Leningrad," near Finland, but may struggle to generate new Arctic capable forces given substantial losses in Ukraine.[87] Russia will face increasing economic and industrial strains competing with NATO modernization. However, if China continues with its growing economic and securitized approach,

such as its current Polar Silk Road plans and military ambitions, it has the organizational flexibility and resources to grow and modernize polar forces.[88] In fact, it would not be surprising if China were to create Arctic-dedicated land, maritime, and air forces as a way of balancing NATO and to create strategic ambiguity regarding its relationship with Russia in the region. China, through its Polar Silk Road and military ambitions, can design new polar-capable forces quicker than NATO.[89]

Conclusion

With the accession of Finland and Sweden into NATO, the Arctic region has grown in importance. Schwartz's scenarios provide a novel framework to anticipate future Arctic issues. To address the myriad of security challenges from these scenarios, NATO must develop and maintain specialized Arctic forces, enhance its situational awareness, and establish a credible deterrent. Leveraging capabilities and expertise of Nordic countries, as well as Arctic-minded allies, NATO can ensure the security and stability of the northern flank of Europe and the Arctic region. The establishment of a dedicated NATO Arctic military force would be a strategic counterweight to Russia's Arctic military dominance and China's growing interest, signaling collective NATO unity in the Arctic Circle. A strengthened NATO presence in the high north also supports the United States' broader global posture by allowing a more focused allocation of U.S. resources to the Indo-Pacific. By ensuring European-led Arctic security, NATO enables Washington to meet growing challenges posed by China without overextension, making Arctic readiness a cornerstone of global strategic flexibility.

By leveraging and enhancing the capabilities and expertise of its Arctic-minded member states, NATO can develop cold-weather forces capable of protecting northern Europe and projecting combat power into the Arctic Circle. Showing collective military strength in the Arctic is the only way of deterring adversaries from breaking international law and norms in the region. The enhancement of JFC Norfolk is the most viable solution to protect NATO's new front lines with Russia, enabling NATO militaries with niche polar warfare capabilities to become a key node of NATO defense in the European high north. Taking such steps will ensure NATO is postured to deter, fight, and win in the Arctic if necessary.

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Enhancing NATO's Naval Power in the High North

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Abstract: With the return of great power competition, the Arctic is set to become increasingly relevant for global geopolitics and the North Atlantic Treaty Organization's (NATO) security. The potential for higher tensions in the region demands that the alliance's member states strengthen their deterrence vis-à-vis Moscow, a task for which naval forces and the maritime domain as a whole will be pivotal. This article argues that the alliance should consider the establishment of an additional standing NATO maritime group (SNMG) for the Arctic region to undertake missions and operations similar to those that the SNMG 1 has performed during the last few years. Its establishment would enhance maritime domain awareness, naval power, and deterrence in the northern flank, albeit facing significant challenges in terms of force generation and adaptation to cold weather conditions. These challenges, however, should not automatically disqualify the proposal as entirely unattainable, but rather be seen as a longer-term goal.

Keywords: North Atlantic Treaty Organization, NATO, Arctic, maritime strategy, naval power, naval exercises, standing NATO maritime groups

After a period of lower activity in the region following the collapse of the Soviet Union, which saw a notable decrease in U.S. and North Atlantic Treaty Organization (NATO) military presence across the region, the Arctic matters once again in the world of geopolitics.[1] For the last two decades, it has gained wider attention in the international community as the thawing of the polar ice cap opens the possibility of sailing across its waters and accessing

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the rich natural resources lying beneath its seabed. The resurgence of Russian military activity has prompted NATO members to respond by building up their military and naval presence in the North Atlantic, as proven by the reactivation of the U.S. Navy's 2d Fleet, or the establishment of an additional Joint Force Command (JFC) in Norfolk in 2018. The potential for higher tensions in the region demands NATO partners strengthen their deterrence vis-à-vis Moscow, a quest in which naval forces and the maritime domain will be pivotal. By doing so, regular deployments to the region and naval exercises larger in scale than those currently held stand out as strong alternatives for NATO navies moving forward.

Trident Juncture 2018 was the largest NATO naval exercise in the North Atlantic region since the days of the Cold War. For two weeks, 65 ships, 250 aircraft, and around 50,000 sailors and military personnel conducted a series of Joint maneuvers and drills, showcasing their interoperability and the potential of their Joint effort.[2] The exercise sent an important message to Moscow, particularly on the determination of the Atlantic alliance to protect its northern flank and collectively face any potential Russian aggression that may originate in the Arctic. It signaled the end of three decades characterized by low intensity threats at sea and a predominantly land-centric focus of NATO's efforts, coupled with the negative consequences that the notorious "peace dividends" had for NATO's maritime posture.[3]

Trident Juncture also showcased the return of great power competition at sea, following Russia's invasion of Crimea in 2014 and the progressive naval buildup undertaken by the People's Republic of China (PRC) to deny the United States and its partners access to the South China Sea region. However, it did not match those of the large-scale naval exercises held in the 1970s and 1980s to deter the Soviet Navy and its Warsaw Pact allies from attacking the alliance. Six years later, the threat posed by Russian submarines, able to strike land-based military and commercial positions in case of conflict, means that NATO allies must strive to deter Russian submarines from operating far into the Atlantic, keeping them as far north as possible.[4]

U.S. Navy admiral and military theorist J. C. Wylie famously asserted that "the ultimate determinant in war is the man in the scene with a gun. This man is the final power in war. He is control. He determines who wins."[5] Implicit in Wylie's argument is that to influence events and eventually succeed in any contest, an actor must be present and stay for as long as it is required to achieve its strategic objectives. Today, with prospects for higher instability in the high north and the need to enhance the protection of the alliance's northern flank, Wylie's advice is timely. How can NATO, then, increase its collective naval power and deterrent posture in the high north in a new era of great power competition at sea?

To answer the question, this article explores the potential establishment of an additional standing NATO maritime group (SNMG) in the Arctic to enhance naval power and deterrence, while going back to a Cold War-like regional focus of the four groups that comprise the alliance's standing naval forces to maximize individual contributions of its member states. The long-awaited NATO *Alliance Maritime Strategy* (AMS) must place more emphasis on the northern flank and help its members.[6] The option would likely face two critical challenges: generating the necessary force and capabilities for an additional standing group and adapting to operations under Arctic weather conditions that notably complicate standard operational procedures on board ships and aircraft. Thus, the article argues that while the force generation problems will take years to solve given the budgetary constraints faced by allied governments, the option of an Arctic Standing NATO Maritime Group should not be put off the table, particularly now that many European nations are determined to strengthen the European pillar in NATO.

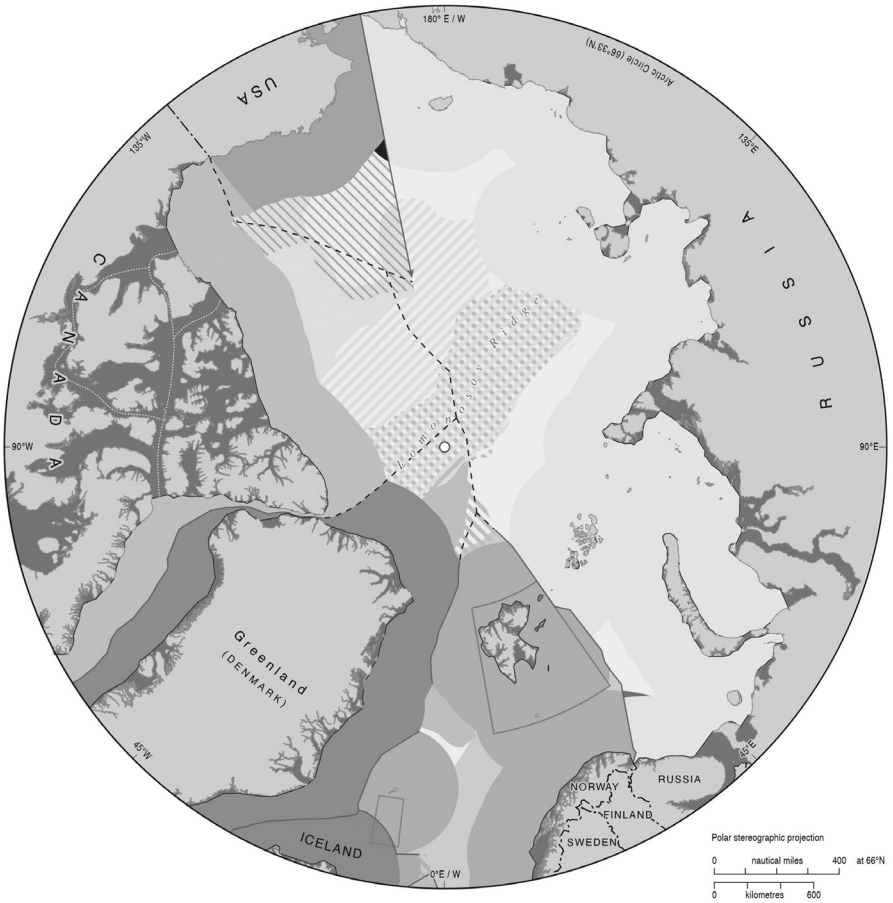
The Arctic in NATO's Maritime Strategic Calculus

During the last few decades, climate change, globalization, and power transition have all influenced the notable shift in global perspectives toward the Arctic region.[7] The thawing of the Arctic ice cap and the overwhelming dependence of the global economy on freedom of navigation is pushing—and will keep pushing—new actors to the region, as commercial routes in the north become highly attractive alternatives to Malacca, Bab el-Mandeb, and other critical choke points in which commercial shipping may be drastically cut without warning (as has happened in the Red Sea region since October 2023).[8] At the same time, prospects for further access to rich natural resources lying under the region's seabed are set to become another key aspect of Arctic countries' activity across the region, with actors such as Russia, Norway, Canada, or the United States seeking to document their extended continental shelves shown in the map below. While this does not represent a serious security threat per se, it could eventually spark minor tensions among them.[9]

Following the significant degradation of its military capabilities during the 1990s, the Russian Federation has progressively allocated substantial resources toward reestablishing its military presence in the Arctic region, facilitated by improvements in its economic conditions during the past two decades. These investments, including the modernization of Soviet-era bases and the reinforcement of the Northern Fleet, are partly attributable to strategic recalibrations after the dissolution of the USSR. They also reflect Russia's evolving perception of regional dynamics and emerging security challenges.[10]

In particular, the enhancement of Arctic military infrastructure appears aligned with Moscow's objectives to strengthen homeland defense, ensure long-

Map 1. Arctic continental shelves' extension



Source: "IBRU Releases New Arctic Maps," IBRU: Center for Borders Research, Durham University, 27 February 2023.

term access to and control over key economic resources, and develop a platform for strategic power projection vis-à-vis NATO. This orientation has been further reinforced by recent geopolitical developments, notably the accession of Sweden and Finland to NATO, which Russian leadership perceives as a shift in the regional balance and a potential increase in conventional threats along its borders: "Viewed from Moscow, the 'enlargement' of NATO closer to Russian borders is feeding a sense of not only vindication but also increased conventional vulnerability."[11] These concerns are formally articulated in the 2022 *Maritime Doctrine of the Russian Federation*, which outlines national interests, threats, and priorities in the maritime domain. Compared to its 2015 predecessor, the updated doctrine places a stronger emphasis on the socioeconomic dimension of maritime strategy.[12]

During the last decades, several nations far from the Arctic Circle have ex-

pressed growing intentions of partaking in Arctic affairs. Among them, China has arguably been the most involved with an increase in its aspirations toward the region. Reflecting on this, the *2024 Arctic Strategy* underscores that "though not an Arctic nation, the PRC is attempting to leverage changing dynamics in the Arctic to pursue greater influence and access, take advantage of Arctic resources, and play a larger role in regional governance."[13] People's Liberation Army Navy (PLAN) vessels have shown the capability to operate near the Arctic in joint deployments with the Russian Navy, with which the PLAN already has a number of relevant joint exercises throughout the year in other regions. In the summer of 2024, Beijing deployed for the first time three icebreakers to the region for a months-long expedition, showcasing the expanding capabilities of its Arctic-capable fleet.[14] Although no PLAN warship has been deployed to Arctic waters, the Chinese Coast Guard conducted its first ever patrol in the Arctic with the Russian Border Service in October 2024.[15]

Under such circumstances, some authors asserted that "the strategic importance of the Barents and Norwegian Seas, the Atlantic and the [Greenland-Iceland-United Kingdom] GIUK Gap to Russia is arguably greater than ever."[16] Thus, NATO finds itself in a position where it needs to strengthen its naval and maritime posture in its northern flank to deter any potential aggression coming from Russia's submarine-based missile capabilities, a task for which its Standing NATO Maritime Groups deployed on a permanent basis are ideally suited. NATO navies are now striving to bolster their capabilities for high-end naval warfare with stronger investments by their national governments while still paying attention to lower-end maritime security operations.

As highlighted by an expert of Russia and the Arctic, Elizabeth Buchanan, "the Alliance has enduring strategic interests in the High North across challenges related to climate change, critical infrastructure (in)security, data and sea cable security, fisheries, as well as the security of sea lines of communication."[17] Consequently, the waters of the Arctic and the high north are now as strategically relevant for NATO as much as the rest of its flanks, a reality that a future allied maritime strategy should account for.

The 2011 *Alliance Maritime Strategy* and the Arctic

This strategic importance is not reflected in the alliance's messaging via formal statements concerning the region, which often tend to avoid featuring the high north (and the Arctic in particular) both in summit declarations and other relevant documents like the *2022 Strategic Concept*.[18] Actually, "contrary to the Baltic Sea region, NATO has lacked a clear strategic approach to the European Arctic. In fact, some analysts have argued that the alliance has deterred itself from taking a more robust role in the area."[19] At sea, this has also become evident with the *Alliance Maritime Strategy*, which is expected to be updated soon.

The AMS, published in 2011 and based on the NATO *Strategic Concept 2010*, remains the only existing official document under such name. During the more than 13 years that have passed since its initial release, the plethora of risks and challenges has extensively multiplied; most notably, it has transformed the seas into one of the main centers of gravity of a new age of great power competition. Considering that the current strategy was primarily based on the 2010 strategic concept, the release of the NATO *2022 Strategic Concept* after the summit in Madrid should have been followed by a new update of the AMS.[20]

The 2011 AMS describes a cooperative maritime environment in which the alliance's contributions are divided into four different categories: deterrence and collective defense, crisis management, cooperative security, and maritime security.[21] It is notable that the document does not make any reference to either China or Russia, which were respectively defined in the NATO *2022 Strategic Concept* as a "challenge [to] our interests, security and values" and as "the most significant and direct threat to allies' security and to peace and stability in the Euro-Atlantic area."[22] This and other examples across the text illustrate the vast changes that have taken place at sea, many of which have rendered the strategy virtually obsolete.

For example, the AMS does not make any reference whatsoever to the Arctic or the high north. While this is understandable given what has been explained above, the deterioration of the situation over the past few years has made it necessary to include the high north in NATO's naval strategic planning. At the same time, the *2022 Strategic Concept* emphasized that Russia's "capability to disrupt Allied reinforcements and freedom of navigation across the North Atlantic is a strategic challenge to the Alliance," but it did not make any specific references to the Arctic either.[23] Contrasting with this, Royal Netherlands Navy admiral Rob P. Bauer, chair of the NATO Military Committee, stated in 2023 prior to Sweden's accession:

> When Sweden joins, following in the footsteps of Finland, seven of the eight members of the Arctic Council will be NATO Allies. We are grateful to our Nordic Allies for their enhanced cooperation, investment and vigilance in the region. The Arctic has always had a strategic importance to NATO, and we must ensure it remains free and navigable.[24]

As such, the Arctic, and more generally, NATO's northern flank, remains an important region in which allied navies must once again adopt a stronger pace of both Joint exercises and naval deployments. In this sense, a potential change in the alliance's planning following the accession of its newest members, which some reports suggest will eventually happen, is the integration of Norway, Sweden, and Finland under the same Joint Force Command (JFC)—the

one in Norfolk.[25] This was recently proposed by Dr. Karsten Friis, highlighting that "Norfolk should cover the entire Cap of the North. It makes sense. It is unthinkable to cover Finnmark without the entire Cap of the North militarily. . . . If we can combine our defenses in a joint Nordic region, we will have a better defense. And we need a better naval defense."[26]

At the operational level, the *U.S. Maritime Strategy* of the 1980s (which was more naval than maritime in nature) stands as a prominent example of what effective planning for naval operations in the North Atlantic and the high north looks like. The strategy was developed by the Chief of Naval Operations' Strategic Studies Group as an effort to counter the Soviet naval presence around NATO's flanks. It provided a detailed analysis of the strategic situation at the time, followed by the definition of five theaters of vital interest and the Soviet threat within each of them (including Soviet naval capabilities).[27] From that assessment, it then derived the means that were necessary to confront and overcome the identified challenges. Those means were crystallized in the 600-ship navy requirement to enforce the strategy and be in a position to defeat NATO's Soviet counterpart. By so doing, securing the northern flank became a primary objective due to the region's potential to offset the overall allied position should it fall under Soviet control.[28]

Although the strategy was put on the shelf after the collapse of the Soviet Union and the subsequent demise of its navy, many of the ideas and the logic that guided its development remain valuable examples for current naval planners in NATO. With the resurgence of the submarine threat in the Norwegian and Barents Seas, and the prospect for a navigable Arctic in the near future, "current trends strongly suggest that it will once again be a key space for maritime operations and presence in the contest between Russia and NATO."[29] Thus, when published, the future AMS should have an associated Concept of Maritime Operations similar to the ones from the 1980s, providing an adequate foundation for naval operations in the region, as well as larger and more frequent multilateral naval exercises to ensure a stable presence to watch over critical undersea infrastructure and other assets in the region.[30]

Exercises like those conducted during the 1970s and 1980s are very rare today, particularly in the North Atlantic region. This is understandable given the sharp reduction in the size of all NATO navies and armed forces in general (as well as Russia's). For example, the 1980 NATO Teamwork Exercise witnessed a total of 54,000 NATO personnel deployed to the alliance's northern region. In contrast, Cold Response 2016 included only 15,000 participants, with Cold Response 2022 doubling that to 30,000.[31] Furthermore, while the latest iterations of Dynamic Mongoose have featured around 11 surface ships each time, Northern Wedding 86 had 150 (from 10 participating navies).[32] These 1980s exercises provide useful examples of wider exercises that strongly contributed

to deterrence in the region in the past. Despite the marked differences between the situation then and now, and thus the limited use of comparisons, the relevance of large-scale exercises to enhance the alliance's messaging and deterrence toward potential foes has seen a rise in attention.

The most significant examples in recent years, aside from the antisubmarine warfare (ASW)-focused Dynamic Mongoose held annually in the North Atlantic region since 2012, had been Trident Juncture 2018 and Cold Response 2022. Most recently, however, the large-scale Steadfast Defender 2024 exercise was an important milestone for the alliance, lasting more than six months and including more than 90,000 troops from all 32 NATO allies. More importantly, the first part of the exercise had a strong North Atlantic and Arctic focus, which hone in on "on transatlantic reinforcement—the strategic deployment of North American forces across the Atlantic to continental Europe" and included maritime live exercises and amphibious assault training in the North Atlantic and Arctic seas.[33] The exercise's success underscores the potential for further exercises similar in nature, which will inevitably require a strong maritime and naval focus. The accession of Finland and Sweden to NATO is a valuable opportunity to further the integration of their navies in Baltic operations and other current exercises and deployments, although they were already participating in many to some degree.

Operation Ice Camp (previously known as Ice Exercise), last held in the Beaufort Sea in March 2024, is another example of multilateral exercises in the region involving naval and air components of the U.S. Services, the Royal Canadian Air Force and Navy, and the French, British, and Australian navies.[34] It provides the opportunity to train together and enhance mutual understanding of challenges in the region, while also providing NATO members with additional presence across the region. It also constitutes a solid template to set up additional exercises with other NATO allies to boost allied naval presence. The Northern Fleet remains one of Russia's central tools to strike valuable targets in NATO territory, and as such, deterring its nuclear-powered guided missile submarines (SSGNs) and ballistic missile submarines (SSBNs) and preventing them from reaching safe strike positions will remain a crucial task. As explained by Steven Wills,

> The real SLOC's worth concern are not the ones leading across the Atlantic, but rather those that allow Russian submarines to move from their home littorals in the Arctic, the Baltic, the Black Sea and the Pacific oceans to positions where they can employ cruise-missiles against land-based military and commercial targets, as well as Western naval units. It is vital for the West to deter the Russians from operating their advanced submarines far into the Atlantic.[35]

Altogether, "enhancing the frequency and duration of Allied naval forces involves showing presence and readiness in the Arctic."[36] Beyond naval exercises, regular deployments by both the Standing NATO Maritime Groups (SNMGs) and allied submarine forces also hold great potential for enhancing NATO's naval presence and deterrent capabilities in the high north. The following sections delve into the alliance's SNMGs and their evolution since they were initially established, to then proceed with a discussion on the potential benefits that the establishment of an Arctic SNMG could bring for the defense of the alliance's northern flank.

NATO's Standing Maritime Groups

The SNMGs consist of four main standing groups and constitute the maritime component of the alliance's rapid response force, responsible for providing a permanent naval presence across the alliance's maritime flanks from the Black Sea to the Arctic. The existing groups are the evolution of the standing naval forces established during the days of the Cold War, which were initially assigned to specific regions. Standing Naval Force Atlantic was established in 1968 as a permanent version of the Matchmaker exercises promoted by U.S. Navy Rear Admiral Richard G. Colbert and was followed in 1973 with the establishment of Standing Naval Force Channel.[37] In the 1990s, Standing Naval Force Mediterranean and the Standing Mine Countermeasures Force Mediterranean were also established, in 1992 and 1999, respectively.

Following the reorganization that left them as they currently stand, they remain valuable assets for their members, providing a relatively balanced presence across all maritime areas of interest without the need to make major investments. However, their current structure is still influenced by two decades of a low-threat maritime environment and, above all, a gradual decline in European naval power. Ships are deployed to the groups for periods of six months, but these last few years have seen a relatively low number of combatants in each group, typically between one and three units rather than the four to nine originally intended.[38] Brooke A. Smith-Windsor claims that "since the end of the Cold War, nationally dedicated maritime forces for standing maritime groups have been decreasing sharply."[39] The evolution of the maritime environment during the past decade, the rising costs of threats to critical undersea infrastructure, and the challenge posed by crises such as the ongoing Houthi campaign in the Red Sea, all call for a careful assessment of NATO's maritime posture.

In the Baltic and the North Seas particularly, NATO must pay attention to the protection of critical undersea infrastructure and the seabed. The latest incident took place in the Baltic Sea in December 2024, when the Estlink 2 undersea power cable connecting Finland and Estonia was damaged along with

four telecommunications lines. Following the successful boarding of a suspected vessel by the Finnish special forces hours after the incident was reported, NATO announced the launch of Operation Baltic Sentry.[40] The operation has increased maritime patrols around the region, through an effort for which the SNMG 1 and its adjunct SNMCMG 1 have also been deployed to provide additional support.

In light of the growing threats and the demand for a more robust and permanent presence they impose, the case can be made for a more regionalized approach of the standing groups under Allied Maritime Command. Like the original standing naval forces, which were assigned to specific regions to operate, having a more permanent presence of NATO warships around the GIUK gap and farther north would provide the alliance with a credible deterrent posture toward Russia's growing submarine activity in and around the region. This idea has been proposed in the past by some, including CNA analyst Joshua Tallis, who argues that "the return of a revanchist Russia makes NATO's previous maritime structure a good source of wisdom for the alliance's future."[41] If the groups are expected to be a powerful instrument of NATO's naval activity, particularly for ASW operations, they must be properly resourced.

With their participation in the 2011 Operation Unified Protector (OUP), the standing forces showed that despite their raison d'être as a "a multinational, integrated maritime force . . . that is permanently available to NATO to perform a wide range of tasks, from participating in exercises to crisis response and real-world operational missions," they were largely unable to act effectively.[42] As underscored by Smith-Windsor, "the standing maritime groups can thus serve as a critical building block for a credible crisis management role for Allied navies—but only with sufficient political will to resource them and use them."[43] More than a decade after OUP, their resourcing remains a significant challenge for member states, as will be discussed in the upcoming section exploring the potential establishment of an SNMG Arctic.

Toward an SNMG Arctic?

This section explores the potential establishment of an additional SNMG for the Arctic, as well as a return to a more regionally focused configuration of the alliance's standing naval forces to strengthen allied naval power and deterrence at sea. Such a shift to their original regional orientation should explore the option of establishing a Standing NATO Maritime Group Arctic (SNMG Arctic), with deployments focused on the North Atlantic region, the GIUK/Greenland-Iceland-Norway gap, and the Bear gap on a more regular basis, following what the SNMG 1 had done in early 2025.[44] This section discusses the rationale supporting the need for an Arctic SNMG, followed by an analysis of the force generation challenges that would derive from it.

As highlighted by Mathieu Boulègue, "Northern Fleet operations in the North Atlantic depend on unhampered access for vessels crossing Norwegian waters around the Barents Sea and Svalbard and then transiting via the Greenland–Iceland–Norway (GIN) gap."[45] This means that, in case of conflict, NATO naval forces would have to deploy to the North Atlantic to interdict Russian lines of communication there, preventing the forces stationed at Kola from being properly resupplied. Having a permanent group with combatants fitted for both ASW and antiair warfare (AAW), and regularly conducting patrols over important critical undersea infrastructure, could lend a valuable contribution to the strengthening of NATO's position in the northern flank both in peacetime and wartime.

The establishment of an SNMG for the Arctic has been put forward in a report published by the U.S. Naval War College's Newport Arctic Scholars Initiative (NASI), in which its authors make the case for it to strengthen the current contributions and deployments of many members to the alliance's collective capabilities. As part of the four main recommendations provided, the report underscores that "a standing multinational task force is key for showing readiness in the Arctic maritime domain, either in the form of a Standing NATO Maritime Group or potentially the strengthening of the UK's Joint Expeditionary Force's [JEF] maritime function in the High North."[46]

As for the JEF, which has experienced force-generation problems akin to those of the SNMGs, the approval of Finland's initiative for Forward Land Forces (FLF) will be a positive contribution to allied cooperation in the region —one that could provide alternative means to support the JEF.[47] Yet, they remain a predominantly land-oriented initiative, and thus, having an SNMG deployed in the region would provide additional capabilities, enhancing maritime domain awareness (MDA) and deterrence in the region. The numerous incidents that have taken place in the Baltic Sea during the last few years are a relevant example of the need for a stronger maritime presence. While existing capabilities available to the alliance may not be enough to allow for its establishment in the short term, that does not imply that the idea should be entirely discarded without further study moving forward.

In practical terms, the SNMG 1 has had a strong regional focus during the last decade, with a continuous presence in the waters of the northern flank (North Atlantic and Baltic) and a serious involvement in most naval exercises conducted in the region (for which the size of the groups was often increased with additional units).[48] Yet, the latest incidents in the Baltic Sea and its deployment to the region suggest that more naval presence is required across the northern flank. Thus, the establishment of an SNMG Arctic and the reorganization of the current structure to make additional assets available to be deployed to the north seem to be increasingly plausible and necessary. An SNMG Arctic

would provide NATO with both additional deterrence and a faster response capacity in case of attacks to critical undersea infrastructure. In practical terms, the author recommends mirroring the activities performed by SNMG 1.

At the same time, the testing and deployment of unmanned maritime systems integrated in the SNMGs stands as another promising option with the potential to help mitigate the resourcing problems currently affecting the alliance's maritime posture, as Baltic Sentry is already showcasing.[49] The integration of unmanned assets in all SNMGs could be a significant enabler for them, increasing their size and capabilities at a relatively low cost. Unmanned aerial vehicles (UAVs), unmanned surface vehicles (USVs), and unmanned underwater vehicles (UUVs) can be integrated as extensions of the higher platforms, supporting maritime patrol and situational awareness tasks to provide the personnel in the larger platforms (e.g., warships) with additional surveillance means and response options. Their potential for mine warfare also makes them valuable assets to be operated from minehunters and minelayers of SNMCMG 1 and SNMCMG 2.[50]

A standing group operating in the region, with the increased presence of allied naval assets associated with it, would be beneficial to ensure regional forces and national capabilities are better synchronized under the NATO umbrella while they conduct operations in the Barents Sea and in the Bear gap.[51] Additional benefits provided by such a force in peacetime would include a "better all domain awareness in the region" and the presence to reassure local communities, while also being a scalable force providing additional flexibility to respond to any hostile action.[52] Additionally, the group would also make it more feasible for NATO to conduct freedom of navigation operations to counter Russian maritime claims in the region, something that has only been done in the South China Sea region. Others have proposed the establishment of a NATO coast guard as another alternative to boost allied maritime presence in the region, although such a service would only be composed of smaller and ice-capable units.[53]

Deployments of an SNMG Arctic could eventually be combined with and integrated into large-scale military exercises with other Services like regional coast guards or the U.S. Marine Corps. Concerning the latter, their growing integration with partner nations' forces represents an important opportunity in the path toward strengthening deterrence in the region. The Marine Corps' cooperation with European allies through regular deployments that bolster interoperability among them provides a positive base for further integration with naval assets: "The ability to posture strike platforms such as those envisioned within the U.S. Marine Corps' *Force Design 2030* in areas such as northern Norway during a crisis would also impose dilemmas on Russian theater-level planning. Such systems would pose a considerable threat to facilities such as

Severomorsk and would necessarily need to be engaged."[54] Despite all the theoretical benefits derived from the establishment of an additional SNMG, however, supporting the new group would impose significant challenges regarding its resourcing by allied navies.

Resourcing an SNMG Arctic

An Arctic SNMG would ideally involve surface combatant groups from northern European navies, particularly those with experience operating in the Arctic, and with an emphasis on ASW, amphibious, icebreakers, and other forces.[55] Norway, Denmark, Germany, and the United Kingdom, with their strong focus in the North Sea and North Atlantic regions, stand as the best suited nations to contribute with assets for a new group. Norway's permanent presence across the Norwegian and North seas would put Oslo in a position to lead the efforts of the group, with both its *Fridtjof Nansen*-class and the future class of frigates from which to draw to deploy with the group. The German Navy's future *Type 424* signals intelligence ships and *F124* and *F125* frigates stand as potential assets for the group as well. Similarly, the Royal Navy's upcoming *Type 26* and *Type 31* frigates, of which eight and five units are respectively planned, will also be potential assets on which to rely, given the UK's strategic interest in the North Atlantic and the Arctic. Both nations' programs, however, have been subject to delays in their delivery dates.

Denmark announced in March 2025 its plans for the modernization of its fleet, including a new class of frigates planned to replace the *Iver Huitfeldt*-class currently in service and a new class of patrol vessels.[56] With them, Denmark is seeking to bolster its naval presence across its territorial waters and maritime areas of responsibility, while contributing to the alliance's posture in the region. With them, the future ASW frigates for the Belgian and Dutch navies could also be potentially put in service of the SNMGs in the region should it be required. The ice-capable vessels to be constructed under the 2024 trilateral U.S.-Canada-Finland Icebreaker Collaboration Effort (ICE Pact) may also provide additional means to strengthen allied naval assets in the high north, albeit the U.S. commitment during the next few years is not yet clear given Washington's recent changes in its traditional role and support for the alliance.[57]

The Donald J. Trump administration has repeatedly expressed the intention of annexing Greenland to the United States, and criticism of the state of the European defense industry and its capabilities have prompted further unrest regarding Washington's commitment with its allies.[58] While a decrease in American naval presence across European waters is expected, the growing interest of the United States in strengthening its Arctic presence and capabilities could benefit an Arctic SNMG in the future, for example, with the upcoming *Constellation*-class frigates as potential assets to be deployed in the group. Ac-

cording to Steinar Torset and Amund Nørstrud Lundesgaard's analysis of the SNMG 1 and its deployments during the last few years, every time a U.S. Navy ship assumed its command, the group saw an increase in the contributions of other allies.[59] Thus, having a U.S. presence in the group, at least during part of the year, could benefit NATO's naval presence in the Arctic, potentially attracting additional support by other allies.

While the accession of Finland and Sweden to the alliance is a positive step forward, it does not necessarily imply that their naval forces would be available to the NATO Arctic group. Finland's future *Pohjanmaa*-class corvettes will provide additional capabilities to a fleet primarily oriented toward coastal defense and regional patrols in the Gulf of Finland and the wider Baltic region. Similarly, Sweden's biggest combatants, like the *Visby*-class corvettes, remain limited in their operational reach, which makes deployments to the Atlantic very rare for them. Thus, the contribution of both navies with NATO's maritime presence in the north is likely to remain in the Baltic Sea. This could, in turn, free bigger units of allied navies to be deployed elsewhere when needed.

Beyond the establishment of an Arctic SNMG, the report by Rachael Gosnell and Lars Saunes further suggests "shared multilateral patrols along EEZs and demonstrations on a more regular basis in tandem with the continuation of regular NATO exercises (e.g., Trident Juncture and Cold Response) to demonstrate cohesion of Allied intent and capabilities" as well as placing a "particular emphasis on exercising against hybrid attacks on critical maritime infrastructure to demonstrate our readiness to respond to, and our resiliency against these threats."[60] As has been already said, the protection of critical undersea infrastructure remains a central challenge for which the SNMGs will be called to pay increasing attention in light of recent events in the Baltic region. The launch of Operation Baltic Sentry in response to persistent attacks against undersea cables and pipelines has brought SNMG 1 to the region to assist with patrols, while unmanned maritime systems are also being added to the effort. The deployment of SNMG 1 underscores the need for the alliance to revisit its standing naval forces' command structure, which could potentially involve more regionalization to favor the contributions of smaller, regional navies.

Altogether, the force generation problems associated with the SNMGs currently represent the biggest challenge in the quest toward the potential establishment of an SNMG Arctic. While the proposals of the cited report are promising, attention still needs to be paid to these obstacles as allied nations move forward with their ambitions to increase recruitment and retention of personnel. Most allied navies are currently struggling to increase the size of the fleets and strengthen their naval capabilities, and managing to find additional warships to deploy under the leadership of the standing groups will demand higher commitments on the side of national governments. Yet, the fact that the

alliance is currently unable to properly resource them or establish additional groups does not necessarily imply that the option of a future SNMG Arctic should be disregarded as absurd or unnecessary. As has been previously underscored, the rapid development and integration of unmanned maritime assets in allied fleets stands as a promising opportunity for the SNMGs.

Discussing the potential and alternative approaches for the establishment of an SNMG Arctic in the future with unmanned technologies in mind could benefit the alliance and provide further insights in addressing the challenges ahead. For example, amid the current trend of faster disengagement by the United States from its European allies, paired with demands for stronger contributions and a foreign policy that has included claims of an intended annexation of Greenland, prospects for stronger European naval presence in the northern waters could become a stabilizing factor between both sides of the Atlantic at a time when Washington is also looking to build up its maritime presence in the high north. Washington has emphasized the need for additional efforts to bolster European defense by strengthening existing capabilities, a task in which the SNMGs must also be included.

Finally, while efforts to counter Russian hybrid threats at sea will be valuable for the collective posture of the alliance, regular deployments and exercises by the SNMGs and allied navies in general must also consider the potential for any unintended miscalculation that may end up leading to an escalation in the region. Seeking to avoid misinterpretation by Moscow while building up allied collective deterrence will also be a delicate balance to strike. SNMG operations in the high north, both in the Baltic and the Northern Atlantic-Arctic, must thus be framed within a clear maritime strategy that openly articulates the alliance's security needs while minimizing the risk of Russian misinterpretations. Russia is bound to increase the aggressive tone of its rhetoric if additional NATO naval forces are deployed to the north of the Bear gap. Thus, alliance messaging regarding the rationale for additional presence should primarily emphasize defensive, environmental, and stability-oriented goals, rather than punitive and aggressive objectives.

Operational Challenges in Cold Weather

Increasing the frequency of deployments to the region and—potentially—having an Arctic SNMG brings certain operational challenges for warships and their crews. As argued by U.S. Navy lieutenant Colin Barnard, "instead of relying exclusively on frigates and destroyers from NATO navies to form the new group, NATO should look to its coast guards as well, recognizing that many of these forces field ships that are optimized for Arctic operations."[61] Patrol vessels from regional coast guards, such as Denmark's *Knudd Rasmussen*-class, Canada's *Harry DeWolf*-class, or Iceland's *Thor*-class would be important assets for

the groups, providing a stable number of ships deployed at all times. Finding the proper equilibrium between these and the bigger frigates and destroyers will be an important requirement, as the latter of them are also necessary to complement the deterrent value of the group. Yet, challenges associated with these deployments, particularly for the equipment and the platforms' mobility, should be carefully considered.

The *2024 Arctic Strategy* emphasizes that "operating in Arctic conditions requires appropriate training, equipment, and supplies for individual service members. Ground, air, and naval mobility platforms require specific sustainment operations not only to function in extreme cold weather, but also through other difficulties that now characterize Arctic conditions."[62] Warships and their weapon systems, equipment, and crews must be designated and trained to operate in winter conditions, which impose a number of constraints and differences when compared to naval operations in warmer regions. NATO's 2007 *Naval Arctic Manual* provides a compact yet extensive guide on these particularities. Among the environmental conditions that affect ships and equipment, forces find: low surface air temperatures; snow, sleet and freezing rain; fog and overcast at the ice/water interface; or abnormal magnetic conditions.[63] These and other related conditions directly affect the safety of the crews, making the risk of breakdowns and other technical failures higher during winter; and most importantly, they have effects in all areas of naval warfare.

In particular, mine countermeasure vessels are not fit for icebreaking with all the hull-mounted sensors and antimagnetic materials they carry, while the ice can pose problems during the mine laying process and the cold can affect the cranes for mine loading.[64] While cold waters are excellent for ASW acoustics, hull-mounted sonars and towed arrays can be damaged by the ice, and the latter remains a clear obstacle for effective surface persecutions of submarines. In this sense, embarked helicopters with dipping sonars and ASW torpedoes can be an effective measure to help.[65] With AAW, sensors onboard the ship are exposed to icing at certain temperatures, while snowfall lowers visibility from the air, complicating target identification and the use of cameras or infrared trackers. Additionally, drastic temperature changes can affect the sensitivity of electronic warfare sensors and systems.[66] For navigation, icefields often reduce the speed of ships, which are forced to seek open waters whenever possible, helped by UAVs and helicopters employed for ice scouting. Cooperation with the U.S. Coast Guard and ships like icebreakers is also fundamental to receive informational awareness of the ice situation.[67]

Electronic equipment must be carefully kept and regularly checked for icing, particularly those items that are most exposed. Communications in high latitudes are affected both by electronic storms and ionospheric disturbances

and special procedures have to be taken to ensure the satisfactory operation of electronic equipment at temperatures lower than -2º Celsius.[68] Antennas, for example, "suffer sea-spray icing in the northern latitudes. The thicker the ice on the antenna, the greater the loss imposed on the signal. Factors such as air temperature, salinity of the water, structural shapes, and wind velocity play key roles in the antenna icing process and should be taken into consideration when operating in the area."[69]

In a similar fashion, unmanned systems, including maritime and aerial drones, are also expected to face similar challenges in the high north's weather conditions. In the case of UAVs, for example, "only the largest, long-range models have enough power for anti-icing systems like those used by aircraft. Cold, fog, rain or snow can cause a malfunction or crash."[70] When operating in temperatures near 0º Celsius, UAVs are often hampered by a thin layer of ice that covers their wings and propellers, rendering them obsolete in a very short time. These operational challenges greatly complicate their employment in large numbers as may be done in other regions with a warmer climate. Unlike UAVs, surface and (especially) underwater unmanned vehicles are better suited to operate in cold waters, thus offering valuable alternatives to strengthen undersea vigilance of critical infrastructure in the region.

Altogether, Arctic naval operations bring along a completely different set of tactical and technical challenges that require careful assessment and continued training of allied forces deployed to the region. Thus, "as the demand for Arctic operations increases, cold-weather training must be increased. Navies with Arctic capabilities and experience should regularly exercise with others interested in building similar capabilities."[71] As NATO moves forward seeking to strengthen its naval capabilities and presence in the high north through regular deployments and large-scale naval exercises, technical factors such as those just described will also have to be considered to avoid any potential mishaps and unnecessary accidents.

Conclusions

For the last several decades, the low tension that has characterized the Arctic region has changed. Russia's assertiveness in the region and the prospects of enhanced cooperation with China both in commercial and naval terms remain an important concern for NATO's strategic calculus in the high north. More importantly, the looming threats in the alliance's maritime flanks from the Black Sea to the Arctic have highlighted the need for a stronger naval presence and deterrence, following Admiral J. C. Wylie's famous dictum.

In light of this, this article has discussed the potential establishment of an SNMG Arctic, which would provide a continuous naval presence across the

region, and a forum where NATO's northern navies can strengthen interoperability with other partner navies. Such a group would have to be resourced with both ice-capable vessels and larger surface combatants to provide a balanced mix of high- and low-end naval capabilities. The establishment of a permanent naval force in the region would face two critical challenges. The first is the force generation necessary to build up the group, which should primarily be resourced with the already mentioned mix of high- and low-end capabilities by the alliance's northern navies, and with the participation of other allies when necessary. The second includes all the operational challenges associated with naval operations in the difficult weather conditions of the region and the additional training and maintenance that would be required to ensure warships and crews can operate safely and effectively.

Neither of them, and particularly that of the generation of force and capabilities, is likely to be solved in the short term. However, even if the establishment of an SNMG Arctic is not currently feasible given those shortfalls, that does not necessarily mean that the option should be completely discarded. On the contrary, a new *Alliance Maritime Strategy* should pave the way to achieve this or similar goals in terms of increased naval presence across the alliance's maritime flanks. The current push among European member states to increase defense spending and the positive impact it may have on allied navies should also serve as a promising incentive. The return to a more regionalized approach for the SNMGs in a way that includes the contributions of local smaller navies, which are often geared toward operations near their waters and have a better knowledge of the operational environment, would likely have a positive impact on the overall posture and readiness of the alliance's SNMGs.

Endnotes

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