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International Security and the Militarization of the Arctic: A New Front in the Strategic Rivalry Between NATO and Russia?

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List of Abbreviations

A2/AD	Anti-Access/Area Denial	MRF-E	Marine Rotational Force – Europe
AMCC	Arctic Military Code of Conduct	NATO	North Atlantic Treaty Organization
AMEC	Arctic Military Environmental Cooperation	NORAD	North American Aerospace Defense Command
ASCF	Arctic Security Cooperation Forum	NSR	Northern Sea Route
ASW	Anti-Submarine Warfare	NWP	Northwest Passage
AUVs	Autonomous Underwater Vehicles	OPIR	Overhead Persistent Infrared
AWACS	Airborne Warning and Control System	OSK Sever	Joint Strategic Command North
CBMs	Confidence Building Measures	SATCOM	Satellite Communications
CSG	Carrier Strike Group	SSBNs	Nuclear-Powered Ballistic Missile Submarines
EEZ	Exclusive Economic Zone	SSGNs	Nuclear Powered Cruise Missiles Submarines
EW	Electronic Warfare	SSN	Nuclear Powered Submarine
FONOPs	Freedom of Navigation Operations	UK	United Kingdom
GIUK Gap	Greenland Iceland United Kingdom Gap	UN	United Nations
GPS	Global Positioning System	UNCLOS	UN Convention on the Law of the Sea
ICBMs	Intercontinental Ballistic Missiles	US	United States
MAD	Mutually Assured Destruction	USSR	Union of Soviet Socialist Republics
MCPP-N	Marine Corps Prepositioning Program – Norway	WGS	Wideband Global SATCOM

Resumen

Este trabajo explora la militarización del Ártico y sus implicaciones para la seguridad internacional, centrándose en la rivalidad estratégica entre la OTAN y Rusia. El estudio analiza el dilema de seguridad en el Ártico, los enfoques, realista versus liberal de las políticas de seguridad en la región, y las teorías geopolíticas y estratégicas más relevantes para el Ártico. También proporciona una visión histórica de la militarización del Ártico y evalúa las estrategias y capacidades militares actuales de Rusia y la OTAN. Además, el trabajo examina las implicaciones de un Ártico militarizado para la seguridad internacional y discute posibles escenarios de conflicto, así como perspectivas futuras. Se concluye que una mayor militarización del Ártico implica un aumento de la tensión y la rivalidad en la región.

Palabras clave: Militarización ártica, seguridad ártica, OTAN, Rusia, geopolítica, dilema de seguridad.

Abstract

This paper explores the militarization of the Arctic and its implications for international security, focusing on the strategic rivalry between NATO and Russia. The study analyzes the security dilemma in the Arctic, the realist versus liberal approaches to security policies in the region, and the geopolitical and strategic theories most relevant to the Arctic. It also provides a historical overview of the Arctic's militarization and assesses the current military capabilities of Russia and NATO. Furthermore, the paper examines the implications of a militarized Arctic for international security and discusses potential conflict scenarios as well as future perspectives. It is concluded that increased militarization of the Arctic implies an increase in tension and rivalry in the region.

Key words: *Arctic militarization, Arctic security, NATO, Russia, geopolitics, security dilemma.*

1. Introduction

The Arctic, long relegated to the periphery of global affairs and perceived primarily as a remote expanse, has recently undergone a dramatic transformation in the past decades, rapidly ascending to a position of critical importance in the arena of international relations. This sudden shift is forced by a complex interplay of factors, most notably the accelerating rate in which the polar icecaps are melting, the subsequent unveiling of substantial reserves of natural resources, and the region's geopolitical location. These converging changes have not only unlocked unprecedented opportunities for resource exploitation, the opening of new shipping routes, and strategic positioning by various States but have also introduced a complex web of challenges to global security, foregrounding the intensification of strategic rivalries among major powers, particularly the evolving dynamic between NATO and Russia.

The Arctic's unique environmental and strategic characteristics present a distinctive and demanding security landscape, and these factors coupled with competing claims over territorial sovereignty, resource access, and the control of emerging transit routes, make the Arctic a highly complex and highly tense mix of security concerns. In addition to this, the escalating military presence and increased military activity observed throughout the Arctic raise fundamental pressing questions about the stability of the region.

Therefore, this study aims to provide a comprehensive and nuanced analysis of the multifaceted phenomenon of Arctic militarization and its wide-ranging impact on both global and regional security, focusing on the increasing rivalry between NATO and Russia. To achieve this overarching goal, the research will specifically investigate the following key inquiries: Has the militarization of the Arctic negatively impacted regional stability, introducing new sources of tension and insecurity into this once relatively peaceful domain? And also, how has the ongoing militarization of the Arctic influenced and reshaped the strategic rivalries between Russia and NATO, two of the most significant actors in

the region, and what are the potential implications of these shifting dynamics for broader international security?

To provide a thorough and well-grounded analysis, this paper will delve into the historical context of militarization in the Arctic, meticulously examining the evolution of military strategies, the deployment of key capabilities, and the shifting strategic doctrines of relevant actors over time. It will also explore the crucial relevance of various geopolitical theories in explaining States behavior in the Arctic, analyze the complex dynamics of the security dilemma as it manifests in the region, and investigate the interplay between realist and liberal perspectives in shaping the diverse security policies adopted by Arctic States. By rigorously investigating these multiple and interconnected dimensions, this research aims to offer valuable and insightful contributions to the existing body of knowledge, providing a deeper understanding of the evolving security dynamics of the Arctic and their potentially far-reaching consequences for international peace and security.

2. Methodology

This research is a literature review that focuses on investigating the militarization of the Arctic and how it affects international security, with a specific focus on the ongoing strategic rivalry between NATO member States and the Russian Federation. To provide comprehensive analysis, this study employs a systematic review of existing scholarly articles, academic books, policy reports, and relevant documents from governmental bodies and other international organizations.

The main objectives of this research are:

1. Examine the evolution and current state of Arctic militarization,
2. Explore how militarization has intensified the already existing strategic rivalry between Russia and NATO.
3. Analyze the impact of Arctic militarization on international security,
4. Assess the relevance of geopolitical theories in explaining Arctic security dynamics

Alongside the objectives, the following study is guided by two research questions and their corresponding hypothesis. First, the questions are:

Q1: Has the militarization of the Arctic negatively impacted global and regional stability?

Q2: Has the militarization of the Arctic intensified the strategic rivalries between Russia and NATO?

Based on these questions, the research proposes the following hypotheses:

H1: The militarization of the Arctic negatively impacts international security by increasing the potential for conflict and regional instability.

H2: The intensification of military deployments and capabilities in the Arctic contributes significantly to strategic rivalry between Russia and NATO.

The selection of the aforementioned sources was guided by strict criteria to ensure the relevance and academic rigor of this research. Keywords such as “Arctic militarization”, “Arctic security”, “NATO”, “Russia”, and “security dilemma” were used to search academic databases, including JSTOR, Scopus, and Google Scholar. The search prioritized peer-reviewed articles and publications within a specific timeframe (the last 20 years), complemented by policy reports, official documents and specialized press for recent events, although seminal works of historical significance were also included regardless of their publication date.

The data extraction process involved synthesizing key concepts, theories, empirical findings, and policy recommendations from the selected literature. In this context, a thematic analysis approach was used to identify recurring themes, patterns, and debates related to the research questions. These themes include the drivers of Arctic militarization, the impact on regional stability, the evolution of NATO-Russia rivalry, and the role of geopolitical theories in explaining State behavior in the region.

On another note, this research also faces important limitations that should be considered. As a literature-based study, it is constrained by the availability and scope of existing academic and policy literature. In this light, it does not include fieldwork, interviews, or primary data collection, which may limit the empirical depth of the analysis. Moreover, some documents, especially military and government reports, may be biased or restricted in accessibility.

Finally, this study aims not only to offer a nuanced understanding of Arctic security dynamics but also to lay the groundwork for future research lines. These may include comparative case studies between Arctic and non-Arctic security regions, empirical assessments of military exercises in the High North, or more detailed analyses of Arctic governance mechanisms in the context of growing geopolitical competition.

3. Theoretical Framework

3.1. The Security Dilemma in International Relations Today

The Security Dilemma concept, developed by the theorists Herbert Butterfield (1951), John H. Herz (1950), and Robert Jervis (1978), is considered one of the main cornerstones of international relations theory. It highlights the paradoxical nature of State Behavior: efforts by one State to enhance its security often led to increased insecurity among others. This concept arises from the anarchic nature of the international system, where no global authority exists to enforce order. In such an environment, States must rely on self-help strategies to ensure their survival. Even nations with purely defensive intentions may take actions perceived as threatening by others, triggering a cycle of mistrust and tensions. (Wivel, 2011).

3.1.1. Conceptual Framework of the Security Dilemma

The Security Dilemma is a never-ending cycle of mutual mistrust and constant tension. In this context, States, in an attempt to keep themselves safe from real or perceived external threat, invest in military buildup, such as advanced weaponry and defensive infrastructures, however the problem arises when within a context of no guaranteed communication or mutual assurance between nations, these defensive measures may appear as aggressive for other countries (Jervis, 1978). This perception often prompts similar actions from other nations, fueling an arms race or a "security spiral," where each State's defensive advancements are met with equivalent countermeasures from others.

Even though a state's intent is to secure itself without malign intent, the outcome tends to be an accidental and unintentional "ramping up" of tensions which ultimately undermines global stability and peace, and in some instances, this tensions might reach a flashpoint where the accumulation of distrust and military buildup can lead to armed conflict between States (Glaser, 1997).

Building upon this, the security dilemma remains at the heart of defensive realism theories, which defend that States, while driven primarily by security-seeking motives, find themselves increasingly vulnerable as their own measures are mirrored by other States that are doing exactly the same. This dynamic has led scholars to argue that the security dilemma underscores the tragedy of international politics: even States that desire peace and seek only defensive assurances inadvertently escalate tensions with other nations in their pursuit of its own security (Tang, 2009).

The dilemma follows two fundamental beliefs: the inherent uncertainty about other States' intentions, and the self-help imperative in an anarchic system that lacks a central authority to alleviate fears and foster trust. Lacking this authority, States are forced to rely on their own means to dissuade threats, which, ironically, often present themselves as potential dangers to other nations. The reality is that this is an unintentional, reinforcing cycle of military buildup and accumulation of power that can spiral into open armed conflict (Tang, 2009). Beyond this, the security dilemma has been broadened by scholars to explain diverse forms of conflict beyond traditional State-to-State rivalries.

For instance, Tang illustrates how the above mechanism plays itself out in the context of ethnic or regional conflicts where various groups in failing States feel threatened by opposing camps leading to intense intergroup violence (Jervis, 1978; Tang, 2009; Wivel, 2011). Here, the lack of governance resembles the anarchy of the international system, in the sense of, while some groups resort to self-help actions to protect themselves, States do exactly that in their search for security. Moreover, there is a debate among scholars on the conditions under which the security dilemma can be mitigated. While some, like Charles Glaser (1997), have argued that certain material factors, such as geography and defensive weaponry, are useful in moderating the dilemma's severity, others—most notably Tang (2009)—stress psychological factors such as perceptions and historical grievances that heighten insecurities and therefore continue the spiral of tension (Glaser, 1997; Tang, 2009).

These "regulators" of the security dilemma bring into focus the fact that both material and psychological elements contribute to the intensity of the security spiral, and that the alleviation of the dilemma may require not only strategic restraint but also diplomatic efforts by the international community.

This conceptual framework of the security dilemma thus gives a deep insight into the tragedy of international relations where even in the absence of hostile intentions, States, in their pursuit of self-preservation, act led by uncertainty and fear which ends up undermining international security (Tang, 2009).

This theoretical framework thus provides the basis for detailed exploration of the specific mechanisms and underpinning dynamics of the security dilemma in which defensive and offensive actions get intertwined, resulting in recurring patterns of escalation and distrust.

3.1.2. Mechanisms and Dynamics of the Security Dilemma

The Security Dilemma operates through a complex set of mechanisms and dynamics, largely driven by the structural conditions of an anarchic international system.

As noted by Booth and Wheeler (2008), the security dilemma depends on two critical phases: the dilemma of interpretation and the dilemma of response, both being central to any examination of the dynamics of mistrust and escalation in State relations.

Dilemma of Interpretation

At the core of the security dilemma lies the interpretation dilemma: The decisionmaker must discern whether another State's actions are offensive or defensive in nature.

Ambiguity in the process provides the "dual-use" nature of many military assets that have both defensive and offensive functions. For instance, an increase in military presence or investment in missile defense could be done for self-defense purposes, but it could also be seen as aggressive doing, leading other States to assume a worst-case scenario (Booth & Wheeler, 2008).

This phenomenon is intensified by what is termed "ambiguous symbolism", where weapon systems, deployments, an even diplomatic signals are subject to interpretation based on past conflicts, regional tensions and broader strategic concerns. Furthermore, interpreting another State's intent is thus rendered even more difficult by what Kenneth Booth and Tim Wheeler dubbed the "other minds problem" – a cognitive barrier to fully understanding another State's intentions – characteristic of high-

stakes national security concerns (Booth & Wheeler, 2008). Hence, even innocuous actions are usually interpreted as hostile, which triggers a cycle of mutual mistrust and tension in the international arena.

Dilemma of Response

Once a State interprets another's actions as threatening, it then faces the dilemma of response. This stage is marked by the decision between deterrent and reassuring strategies.

Tang (2009) points out that States more often choose deterrent responses to perceived threats, driven by the fear that the use of reassurance might place them in a position of being exploited. However, deterrent responses often produce the above-described "security spiral". This reciprocal build-up of tensions and possible responses can eventually escalate to an arms race or a series of diplomatic standoffs between countries. Thus, the security dilemma turns a defensive posture into an inadvertent threat, feeding an escalation devastating for regional and international stability.

Material and Psychological Regulators

The intensity of the security dilemma depends on material and psychological factors, often called "regulators". Material factors—such as advanced technology, geographical proximity, and military capabilities—can amplify the perception of threats.

For instance, the development of missile technology or the deployment of nuclear submarines in the sensitive regions often escalates fears among the neighboring States, even if those developments are intended purely for deterrence.

Similarly, the asymmetry of technologies, where one State is so much stronger than others in terms of military capabilities, can further heighten the insecurity of the weaker States, pushing them toward compensatory measures (Tang, 2009).

Several psychological factors also play a very significant role in ramping up the tensions: historical grievances, ideological differences, and nationalist fervor are often suspected to enhance threat perceptions and feed distrust between States. The existence of unresolved historical conflicts or diplomatic failures could make the States adopt inherently suspicious postures, whereby every action is filtered through a framework of past hostilities (Tang, 2009).

As argued by Booth and Wheeler (2008), these psychological regulators not only shape the initial perception of threat but also reinforce the inevitability of defensive preparations, deepening the cycle of insecurity and mistrust.

The interactions between the dilemmas of interpretation and response, intensified by material and psychological regulators, create a complex web in which defensive actions lead to escalators' cycles, frequently culminating in arms races, diplomatic standoffs, or even conflict between States. This dynamic process is more relevant in the Arctic and polar regions, where shifting geopolitics and environmental changes bring the security dilemma into sharper relief (Booth & Wheeler, 2008).

As the next section explores, the Arctic is a unique case where traditional security concerns are now intertwined with new environmental and strategic realities, amplifying in effect the already fragile landscape of cooperation and trust in the region.

3.1.3. The Security Dilemma in Polar Regions

In the light of the security dilemma and its impact on international stability, this next section will examine how the aforementioned dilemma affects the Arctic region specifically. The High North, once a peaceful and stable region, has gained critical geopolitical importance due to its natural resources and strategic location.

The Arctic Security Dilemma Dynamics

The security dilemma in the Arctic heavily resembles a cycle of action-reaction dynamics. The five Arctic Ocean coastal States (Russia, the United States, Canada, Denmark and Norway) have all increased their military/surveillance activities in the High North in these past few years in response to each other's actions.

Norwegian scholar Kristian Åtland (2014) notes that these five States have adopted Arctic strategies and developed new military capabilities, and that one State's efforts to enhance its security may make others feel less secure and therefore more likely to undertake similar efforts. Yet, as each State works on securing the Arctic, others look at them as potentially threatening and therefore reciprocate these military developments. Indeed, such a cyclic build-up of defense risks leading towards incremental militarization of the region without any of these States explicitly desiring a conflict (Åtland, 2014).

It's also important to point out how one of the most defining features of the Arctic security dilemma is the dual-use nature of already deployed assets and infrastructure, since many technologies, from icebreakers to surveillance drones, can serve both civilian and military purposes. In this context, dual-use assets are often seen as threatening by neighboring countries due to suspicions over how they will be used (Booth & Wheeler, 2008). This dual-use ambiguity increases mistrust, especially as Arctic States continue to invest in infrastructure or technology that can support both commercial and military operations.

Regional Claims and Jurisdictional Disputes

Another factor affecting the Arctic security dilemma is the competition over territorial claims and maritime boundaries. As nations vie for access to the Arctic's vast number of natural resources such as oil, gas, and minerals, jurisdictional disputes have emerged in an already changing environment.

In this context, each claim to the continental falls under the United Nations Convention on the Law of the Sea (UNCLOS) jurisdiction. This convention provides the legal framework under which all activities in the world's oceans and seas fall, while also delineating the rights and responsibilities of nations with respect to their use of the ocean, its resources, and the protection of its marine environment.

However, despite the existence of this legal framework, the Arctic is witnessing increasing complexities arising from competing national interests and security concerns, which reflects not only an economic interest but also a strategic foothold in a critical region for future resource exploitation, for example, Russia's active claims over the Lomonosov Ridge, have heightened regional tensions with other Arctic nations. Consequently, this competition over sovereignty is often seen as a zero-sum game, where States respond to perceived encroachments by strengthening their claims and deploying more resources to the region (Camicia, 2024).

Aggravating these issues, Arctic nations have increasingly incorporated the region into their national security strategies in an attempt to further their control over the polar region, with both the United States and Russia marking the Arctic as a region of important strategic interest, rhetoric about sovereignty and national security has become more hostile in the past decade.

For instance, the Kremlin and Washington see each other's activities as a threat to their own interests, while Russian officials see NATO's presence in the High North as a Western attempt to encircle Russia and limit its access to crucial resources and maritime routes vital to its economic and strategic interests, American policies have emphasized ensuring "freedom of navigation" in international waters, especially in the Northern Sea Route, thereby heightening concerns among Russian policymakers regarding the intent behind U.S. exercises (Camicia, 2024).

Securitization and Perceptions of Threat

The Constructivist model of securitization is especially appropriate in the context of Arctic security, as perceptions and social constructions of threat play a strong role in determining State's behavior in this region. The securitization of Arctic policies by Russia and the United States showcases how both nations frame the other as a security threat and use past conflicts and concerns to justify their current actions in the Arctic.

According to scholar Martina Camicia (2024), since Russia's 2014 annexation of Crimea, the U.S. and its allies have viewed the Kremlin's Arctic policies as part of a larger pattern of imperialist ambitions. However, according to Moscow, the increased Arctic interest by NATO can be considered as a direct challenge to Russia's own sovereignty and resources in the North, eliciting both defensive rhetoric and real military responses in the region.

This mutual mistrust reinforces the Arctic security dilemma by framing each State's actions as existentially threatening and therefore escalating the arms race in a region that might otherwise prioritize cooperative security (Camicia, 2024). In sum, the Arctic security dilemma is a deep and complex challenge, one that illustrates how environmental change, strategic interests, and international rivalry are interacting in a critical geopolitical region.

The multifaceted challenges and escalating tensions outlined in this analysis of the Arctic security dilemma underscore the fundamental questions surrounding how States perceive and pursue their own security interests in this evolving environment. The observed patterns of action and reaction, fueled by resource competition, strategic posturing, and the securitization of regional activities, naturally lead to a critical examination of the underlying theoretical frameworks that shape Arctic security policies. The next section will therefore explore the contrasting approaches of realism and liberalism in understanding and potentially mitigating these complex security dynamics in the High North.

3.2. Realism vs. Liberalism in Arctic Security Policies

The importance of strategic rivalries on Arctic security policies illustrates a renewed dominance of realist principles, with States emphasizing power, military strategy, and territorial sovereignty. However, elements of liberalism remain relevant, as Arctic nations continue to pursue multilateral engagement where possible. Nonetheless, the overarching trend suggests a regional security environment increasingly shaped by power politics, where national interests and military capabilities overshadow cooperative aspirations. This dual approach reflects the enduring tension between realism and liberalism in Arctic security, a dynamic that will likely define the region's political landscape in the years to come.

In light of these dynamics, this section aims to examine the theoretical divide between both realism and liberalism by analyzing how Russia and NATO embody these competing approaches in their respective Arctic security policies.

3.2.1. Realism: Power Competition and Military Strategy

To begin with, Realism has been regarded as one of the most influential theories in International Relations.

At the center of this theory lies the belief that the international system is anarchic; it lacks any overarching authority to ensure security for States. And, as a result, nations must rely on self-help mechanisms, give primacy to military power, and seek relative gains in order to secure their position and be safeguarded against various forms of threat. Consequently, such an understanding of international relations has framed military and foreign policy approaches across ages, as States balance power relations in a relentless bid to avoid domination by rivals while, at the same time, striving to improve their strategic capabilities.

Essential Constituents of Realism: Statism, Survival, and Self-Help

The three essential constituents of realism are: statism, survival, and self-help, a group of terms also referred to as the "Three S's" of realist thought (Dunne & Schmidt, 2020).

Statism: The primacy of the State as the principal actor in international politics is based upon the principle of statism, with its defining characteristic being sovereignty. Realists do argue that each State has the right to defend this authority against external encroachment. However, the State as we know it since the Peace of Westphalia, and at the expense of greater collective ideals, has evolved to become the most important unit of international relations, with self-preservation and autonomy as the top of its priorities (Dunne & Schmidt, 2020).

Survival: Survival is the supreme goal of States, since without the continuity of sovereignty, no political or ideological goals are possible. Realists argue that due to the anarchy that characterizes the international community, there is an intense sense of existential danger where no State is ultimately sure of its very own security (Waltz, 1989).

Self-help: According to Waltz (1979), the principle of self-help drives States to fall back onto their own resources to secure a position in the international system. This generates a zero-sum competition in which a gain for one State may imply a loss for another, thus continually feeding the power struggle between nations. As Waltz stated, in an anarchic world, power, and especially military power, is considered to be the most reliable means towards security (Waltz, 1979).

The realist emphasis on self-help shapes military strategy by driving States to enhance their military capabilities to safeguard against potential vulnerabilities. This approach encourages States to pursue advancements that fortify their defenses, aiming to reduce any weaknesses that adversaries might take advantage of.

Power and Military Strategy in Realist Theory

In realist thought, power is understood as both the goal and the means to guarantee security in international politics. For a State, the relevant aspect of military capability is viewed as an important indicator of power, due to its capability to deter any possible threat and enforce the country's objectives. As such, according to Mearsheimer (2001), States are "power maximizers" where they not only seek to secure their position but also to increase their influence in relation to other States to ensure survival.

Because of this, accumulation of power through military strength is not just a strategy for deterrence but also a requisite for domination, as it reduces the relative power of potential challenges that States need to face in an anarchic world.

Realist scholars distinguish between two types of power: offensive and defensive. Offensive realists, of whom Mearsheimer is considered the major exponent, maintain that States will seek as much power as possible and will try, when the opportunity presents itself, to dominate other nations. This attitude is closely combined with the assumption that conflict is inevitable because States are doomed to an eternal struggle for power between each other (Mearsheimer, 2001).

The defensive realists, like Waltz (1979), argue that excessive accumulations of power are counterproductive in that they provoke counterbalancing coalitions, and what is required instead is a strategy aimed at the acquisition of sufficient power to ensure survival but not so much as to invite conflict (Waltz, 1979). Anyway, the above variations emphasize military power as integral to State strategy in an anarchic international system.

Realism and the Balance of Power

One of the important strategic doctrines in realism is that of the balance of power, wherein it is stated that States will form alliances and adjust their power to prevent any one from achieving dominance.

Thus, for instance, during the Cold War, each of the two superpowers pursued an arms race for maintaining a balance of power which would deter direct conflict between the two superpowers (Schmidt, 2021).

Realists adhere to this view that a balance of power strategies saves a multipolar world from instability; these mechanisms are sure to block the road before any hegemony can emerge and implement its will unilaterally.

In conclusion, this section has laid out the core tenets of realism, highlighting its emphasis on the anarchic nature of the international system, the primacy of the State, the drive for survival, and the logic of self – help. The consequent focus on power, particularly military capabilities, and the strategic doctrine of the balance of power, provides a foundational understanding of how realism frames State behavior in the pursuit of security. However, alongside this perspective, other theoretical approaches offer contrasting explanations for international relations, in this light, the next section will explore one of these alternatives: liberalism, and its distinct perspective on the dynamics of global politics and security.

3.2.2. Liberalism: Power Cooperation and International Relations

This section focuses on liberalism, building on the previously mentioned realism. In contrast with realism, liberalism presents an alternative vision of international relations, underscoring the potential for cooperation among States, the crucial role of international institutions, and the stabilizing influence of economic interdependence in fostering global security.

Emerging from the Enlightenment ideals of rationality and human progress, liberal theory posits that while States remain self – interested actors, their interactions are not inherently destined for conflict. In this light, liberalism argues that countries can actively work towards mutual security and shared prosperity through the establishment and maintenance of frameworks that encourage cooperation, effectively mitigate misunderstandings, and provide mechanisms for regulating competition (Silverstone, 2022).

Key Principles in Liberalism: Institutions, Democratic Peace, and Economic Interdependence

The liberal tradition is rooted in the belief that institutions can play a pivotal role in mitigating conflict. Institutions such as the United Nations, NATO, and the World Trade Organization serve as platforms for dialogue, setting rules that facilitate transparency, predictability, and the peaceful resolution of disputes, so States can form agreements, increase trust, and pursue shared objectives without relying solely on military strength.

Economic interdependence is another cornerstone of liberalism (Keohane & Nye, 2012). By promoting trade and financial integration, economic liberalism argues that States become less likely to resort to conflict, as war would disrupt mutually beneficial economic relationships. Montesquieu's argument that commerce tends to bring peace (Montesquieu, 1748/1989, Book XX, chap. 2) underpins the liberal view that economic connections create incentives for restraint and cooperation, as seen in the success of the European Union as a peace project in postwar Europe (Silverstone, 2022).

Another theory supporting liberalism, is the so-called Democratic Peace Theory which further supports liberalism's stance on peaceful relations, suggesting that democratic States are less likely to engage in conflict with one another. This theory is based on the belief that democracies share norms of nonviolent dispute resolution and are accountable to citizens who generally prefer peace over war. According to liberal thinkers, the spread of democracy thus has the potential to expand zones of peace globally, as demonstrated by the lasting peace between democratic States in Western Europe and North America.

Liberalism's Impact on Military Strategy and Power Dynamics

Liberalism also redefines power in the context of international relations. In contrast to the realist focus on military power and domination, liberals like Nye (2011) argue for the importance of soft power and the ability of States to shape preferences through attraction rather than coercion. By fostering relationships, promoting human rights, and supporting multilateralism, States can build influence and enhance security without relying solely on military means.

However, it's also important to mention how liberalism does not discount completely the role of military force; instead, it advocates for its use within a framework of collective security and international law. Thus, while liberalism supports military preparedness, it prioritizes diplomacy, economic interdependence, and institutional engagement as mechanisms to prevent conflicts from escalating into wars (Silverstone, 2022).

In summary, liberalism offers a distinct perspective on international relations, emphasizing the potential for cooperation, the importance of institutions, and the pacifying effects of economic interdependence and democratic norms. While acknowledging the role of military force, liberalism prioritizes diplomatic engagement and multilateral frameworks for managing security challenges. Considering this contrasting approach alongside the realist perspective, the analysis of the Arctic's increasing militarization and its impact on international security requires a nuanced understanding of both power-based competition and the possibilities for cooperative security mechanisms.

3.2.3. Impact of Strategic Rivalries on Arctic Security Policies: Realism vs. Liberalism in the Polar Region

Great power competition has increasingly focused on the Arctic, due to strategic rivalries significantly influencing security policies among Arctic States. In this context and following the examination of the contrasting theoretical lenses of realism and liberalism in shaping Arctic security perspectives, this section now turns its focus to the practical manifestation of these dynamics in the face of escalating great power competition.

The Arctic, once perceived as a remote and stable frontier, has increasingly become a focal point in the evolving landscape of international relations. The following section examines how the resurgence of great power competition is fundamentally reshaping the security policies of Arctic States. As geopolitical tensions have intensified in recent years, the Arctic has emerged as a critical arena where long-standing rivalries are projected onto a unique and environmentally sensitive region. This analysis will explore how these strategic competitions, particularly the dynamic between Russia and the United States, are driving a shift towards security policies rooted in realist principles of sovereignty, control, and military presence, thereby influencing the overall security environment of the Arctic (Wegge, 2020).

Russian and Western Strategies in the Arctic

Russia's Arctic strategy is based on a realist framework emanating from the need to strengthen its sovereignty, ensure the integrity of its territory, and establish control over strategic resources. Since 2014, Russia's re-growth of bastion defense doctrine has strengthened its Arctic involvement through massive development of military infrastructure, including airbases on Franz Josef Land and the modernization of nuclear submarine fleets in the Barents Sea. This defensive strategy serves the purpose of protecting Russia's second-strike capabilities while at the same time securing access to vital resources in the Arctic, primarily along the Northern Sea Route (NSR). Consequently, Russia deems increased NATO and US involvement in the Arctic as penetrations into its sphere of influence, which is counterbalanced by regional military deployments and the development of hypersonic and missile defense technologies (Wegge, 2020).

In contrast, the Arctic strategies of the United States and NATO rely on both defense and economic rationales. The Arctic strategy of the U.S. Department of Defense insists on the need to limit threats to the country's 'homeland' as well as maintain navigation, thus constructing a narrative of

Arctic security within great powers relations. This strategy also emphasizes the cooperation with countries such as Canada, Norway, and Denmark to strengthen the alliance against threats from Russia. The presence of United States and allied naval forces in the Barents Sea, together with the enhanced joint exercises conducted by NATO in the High North, forms part of the measures aimed at countering Russia's strategic advantage while ensuring that the Western military presence in the area does not dissipate (Nabok, 2022)

China's Emerging Role and Its Influence on Security Policies

The paradox is that it is China who complicates the Arctic security policies regime, as it seeks to brand itself as a "near Arctic State" due to expansion in shipping routes and energy resources. Still, while such activities of China stay mainly economic and scientific in nature deepening its strategic ties with Russia, this new branding concerns the NATO allies about a possible re-escalation of the Arctic security threat distribution. The Chinese focus on Arctic governance, along with their multilateral management of the regional resources, poses a threat to the initiatives led by the West which emphasize territorial integrity and sovereignty as its main priorities.

As a result, the Western Arctic strategies increasingly consider the prospect of an enhanced interaction between China and Russia, which may transform the regional security dynamics (Nabok, 2022).

Strategic Rivalries and Erosion of Cooperation

The increasing strategic competition in the Arctic has progressively resulted in a tangible erosion of the collaborative structures that once characterized the region's governance. While the Arctic Council remains a vital platform for cooperation on issues such as environmental protection and the rights of the indigenous peoples, its fundamental limitations in addressing military and security matters, stemming from its non-political mandate, render it increasingly inadequate in the face of escalating geopolitical tensions. Consequently, as great power rivalries intensify, particularly the complex and often adversarial relationship between Russia and the NATO alliance, Arctic States are demonstrably shifting their focus and resources away from traditional multilateral diplomacy towards the enhancement of national military capabilities and the establishment of robust bilateral defense agreements.

This shift is clearly illustrated by the increasing emphasis placed by NATO members like Norway and Denmark on strengthening their bilateral defense ties with the United States through military assistance and enhanced cooperation. Rather than solely relying on broader multilateral agreements, these nations are prioritizing direct security partnerships, signaling a strategic recalibration towards more defensively oriented policies. This trend away from collective security mechanisms and towards self-reliance and the bolstering of individual military postures directly underscores the central concern of how the growing militarization of the Arctic is significantly influencing international security dynamics. By fostering an environment of heightened military presence, increased suspicion, and a potential for miscalculation, this escalating competition in the Arctic directly exacerbates the existing tensions and deepens the mistrust between Russia and the NATO alliance in this strategically vital and environmentally sensitive region, thereby contributing to a more unstable global security landscape (Wegge, 2020).

Realism and Liberalism in Arctic Security

In summary, the impact of strategic rivalries on Arctic security policies illustrates a renewed dominance of realist principles, with States emphasizing power, military strategy, and territorial sovereignty. This trend, particularly evident in the evolving dynamics between Russia and NATO in the Arctic, suggests that the growing militarization of the region is indeed having a significant and potentially destabilizing effect on international security. While elements of liberalism remain relevant, as Arctic nations continue to pursue multilateral engagement where possible, the overarching trend points towards a regional security environment increasingly shaped by power politics, where national interests and military capabilities are overshadowing cooperative aspirations. This complex interplay of strategic competition and the resultant militarization raises critical questions about the future trajectory of Arctic security and its

broader implications for global stability, issues that will be further illuminated by an examination of relevant geopolitical and strategic theories in the subsequent section.

3.3. Geopolitical and Strategic Theories Relevant in the Arctic

3.3.1. Classical Geopolitical Theories in the Arctic

Having already established modern dynamics of Arctic security, marked by great power competition and a resurgence of realist principles, the following section delves into foundational classical geopolitical theories. Classical geopolitical theories by Alfred Thayer Mahan, Halford Mackinder, and Nicholas Spykman offer valuable frameworks for understanding the region's current dynamics. By examining these historical perspectives, we can gain deeper insight into the underlying geographical and political factors that continue to shape the current security landscape in the High North.

Mahan's Sea Power Theory

The Sea Power Theory of Alfred Thayer Mahan, explained in *The Influence of Sea Power upon History* (1890), argues that one cannot speak of the power of a State or its economy without maritime power. As for Mahan, he claims that securing sea lanes and relevant ports enables States to safeguard their commerce, extend their influence over other States, and attempt to disrupt possible competitors' from accessing valuable resources (Mahan, 1890). Mahan's theory focuses on six key factors that determine a State's ability to exert sea power effectively. These characteristics are geographical position, extent of territory, physical conformation, population, government, and national character.

In the Arctic context, Mahan's reference to strategic waterways becomes relevant as countries such as Russia, the United States, and Canada prepare to take advantage of the newly opened Arctic routes like the Northern Sea Route or the Northwest passage. Such control over these routes could concede significant economic and military advantages in assisting trade and providing military mobility. The enormous development of Arctic ports, nuclear icebreakers, and military facilities in Russia can be considered as a Mahan's approach as they seek to project power by sea in the High North (Kang, 2022). Mahan's theory underscores the strategic reasoning for these activities by suggesting that the Arctic States do understand the importance of the newly opened maritime corridors for the preservation of their national interests and enhancement of economic might.

Mackinder's Heartland Theory

The Heartland Theory of Halford Mackinder postulated in his work 'The Geographical Pivot of History' (1904), suggests that dominance of the Heartland or the core Eurasia is necessary in order to achieve world domination. Regarding the geospatial practices, Mackinder found it suitable to classify the world into a central region known as the Heartland with the inner and outer oceans referred to as the Inner Crescent and Outer Crescent, respectively. As his famous quote goes, "Who rules East Europe commands the Heartland; who rules the Heartland commands the World-Island; who rules the World-Island commands the World" (Mackinder, 1919). That is, Mackinder understood that no State aspiring to conquer the world would be able to disregard these advantages in the position and resources of this region.

Although this author referred to the Arctic region as a border region in the past, the present includes other environmental factors that refute such thinking by providing new access routes to the Heartland from the north. With the thawing of Arctic ice, there are new sea routes connecting Eurasia which eases transportation within the globe and shifts economic power for Russia making it less of a landlocked State (Kang, 2022). The control of the Arctic passageways is intended to strengthen the Russian economy and act as a protective shield from the Western influence, proving how the concept of Heartland by Mackinder remains relevant in Arctic geostrategy (Wegge, 2020).

Spykman's Rimland Theory

British geographer Sir Halford Mackinder is widely regarded as the architect of the Heartland Theory, though other scholars built upon it, such as Nicholas Spykman, who presented the Rimland Theory in *The Geography of the Peace* (1944). Spykman believed that areas outside the Heartland had also critical importance for world supremacy. While Mackinder emphasized the mainland regions of Eurasia, Spykman believed that if one controlled the Rimland, one could contain the Heartland and thus project power globally (Spykman, 1944). One of Spykman's famous rejoinders to Mackinder's assertion states: "Who controls the Rimland rules Eurasia, who rules Eurasia controls the destinies of the world" (Spykman, 1944).

In the Arctic region, the application of Spykman's Rimland model implies that, for instance, States like Russia, Canada, and the US are positioned more advantageously than non-Arctic countries in effectively governing the region. As Arctic waters become more navigable, it is anticipated that there will be an increase in ship traffic within the Arctic region, which in turn will allow the coastal States to create and manage transport networks and deploy troops along the Rimland.

The building of military facilities and the development of military paraphernalia by Russia along the Arctic region can be explained in relation to Spykman's thinking since they help Russia defend its northern frontiers and extend its influence across the Arctic (Wegge, 2020). This approach supports the idea that the Arctic is an extension of the Eurasian Rimland, with the sea accessed by economic interplay determined by the littoral States.

To sum it all up, Classical geopolitical theories by Mahan, Mackinder, and Spykman underscore the enduring relevance of geography in shaping State strategies, particularly in the Arctic. As climate change reshapes the Arctic's accessibility, these theories provide insights into how control over maritime routes and geographic positioning can confer strategic advantages. Mahan's focus on sea power, Mackinder's Heartland concept, and Spykman's Rimland theory collectively illustrate the strategic importance of the Arctic for global power competition, positioning the region as a critical space in modern geopolitics.

3.3.2. Geoeconomic Competition and Resource Access

The Arctic's vast untapped resources and emerging maritime routes have redefined it as a space of intense geoeconomic interest, where competition for access and control has intensified among Arctic and non-Arctic States. As climate change accelerates ice melt, significant areas previously inaccessible are now open to exploitation, allowing for new avenues in energy extraction, shipping, and mineral exploration. According to estimates by the U.S. Geological Survey, the Arctic may hold approximately 90 billion barrels of oil, 1,669 trillion cubic feet of natural gas, and 44 billion barrels of natural gas liquids, accounting for 13% of the world's natural undiscovered oil and 30% of its undiscovered gas resources (Gautier et al., 2009). These reserves underscore the Arctic's importance in the geoeconomic strategies of States, heightening both regional competition and global security implications.

Strategic Resource Competition and National Interests

Every Arctic State - primarily Russia, the United States, Canada, Norway, and Denmark - pursues the goal of both obtaining and enhancing its access to Arctic resources in alignment with its national interests. In that regard, Russia, which possesses the largest area in the Arctic as well as coastline edge, has undertaken the greatest number of efforts geared towards promoting the exploitation of the northern resources. Some of its strategic ventures include projects such as Yamal LNG in the Russian Arctic, which incur Sino-Russian partnerships to export gas to China. The Yamal project is characterized by large port and pipeline systems, which reflect Russia's intention to be the main supplier of the Arctic gas to the Asian region while maintaining strengthened northern frontiers with more military and logistical operations (Brutschin & Schubert, 2016).

The United States has been slower to react but has nonetheless been motivated in relation to the energy potential within the Arctic zone, issuing exploration licenses in the northern Alaska coast

and advocating for greater access to the resources on the continental shelf. Although, the US is constrained from further engagement as it has not ratified the UNCLOS, which affects the extent of its legal claims over areas beyond the Exclusive Economic Zone (EEZ). On the other hand, Norway has been actively engaged in the area – capitalizing more so on its offshore oil resources in the Barents Sea given new developments that have rejuvenated the country's Arctic oil industry. Canada and Denmark also have ambitions that go along the lines of the UNCLOS, with the claims over areas such as Lomonosov Ridge, an 1,800-kilometer-long underwater mountain chain that stands to benefit the Arctic territories rights of each country (Østerud & Hønneland, 2014).

New Trade Routes and Strategic Shipping Lanes

The opening of new navigation routes in the Arctic is not only a military or political phenomenon, but also a geoeconomic competition within the framework of globalization. The Northern Sea Route, located in northern Russia, offers a considerably shorter route between Europe and Asia than the Suez Canal route. In these regards, Russia has undertaken major measures to defend the aforementioned road, including the purchase of heavy-duty vessels with nuclear-powered engines as well as development of port facilities. Russia's strategy regarding to the Arctic infrastructure building, including the ports of Murmansk and Sabetta, is aimed at total control over the Northern Sea Route traffic which can bring in large sums of money in terms of transit revenues and position Moscow strongly in Asia – Europe trade (Brutschin & Schubert, 2016).

Focusing on the Western side of the Arctic region, Canada considers the Northwest Passage (NWP) as an integral part of its territory on the basis of historic title and straight baselines. Should this route become completely navigable, it can provide a new link or corridor connecting the Atlantic and Pacific oceans. However, while the NWP is often referred to by Canada as “internal waters”, the United States and other maritime powers consider it an international strait. Such contradiction reflects the intricacies of Arctic sovereignty and raises the issue of navigation rights; there are States that would want to contest Canada's claim in the NWP as there has been with Russia in the NSR, and this contestation over Arctic lanes serves to advance territories as a region in militarized competition for control of sea access (Østerud & Hønneland, 2014).

3.3.3. Environmental Geopolitics and Climate Change Implications

The rapid warming of the Arctic region has raised its geostrategic importance and brought in changes to the regional and international security dynamics. Global warming, more specifically, the reduction of sea ice and the permafrost thawing, have not only changed the landform but also created conditions for increased State activity, competition for resources, and militarization of the region.

Security Implications and Militarization Driven by Environmental Change

The melting of polar ice between the end of the last century and today, coupled with the new energy resources, has brought a return of military activity to the Arctic. The most vivid example of the latter can be found in the military expansion of Russia, which has developed new airstrips, radar systems and military towns along the entire northern perimeter of the country. These facilities a two-sided function: the secure of resource areas of development and the enhance of its capabilities to control the Northern Sea Route. The Arctic strategy of the Russian president does not deviate from this general line, as it is made primarily to protect Russian assets in the Arctic and to contain the West in the region (Depledge, 2016).

The military exercises and infrastructure development, conducted by NATO and the United States, can be considered a counteraction to Russia's recent developments, in an effort to return to the primary State of affairs in the Arctic, which are reminiscent of the Cold War period. There is a visible commitment to opposing Russian encroachment through increased engagement in NATO, particularly in the conduct of exercises with the Scandinavian NATO members. The U.S. has placed an increased emphasis on Arctic security in its most recent national defense strategies, accentuating the role of freedom of navigation and working with partners to maintain order in the region (Greaves, 2019).

Governance Challenges in a Changing Arctic

The evolution of climate change and geoeconomics has revealed the inadequacy of the current structures in place to coordinate activities in the Arctic region. With the primary role of the Arctic Council's activities being the promotion of cooperation on environmental and science-related matters, the increasing regional tensions present serious issues. The Constitution of the Arctic Council does not envisage security matters, hence the militarization and the strategic social relations now developing in the region cannot be tackled. This has created an environment that has made it necessary to propose new structures that combine political ecology, economics, and security, and which strategies have become warning of changing territorial dynamics in the Arctic (Greaves, 2019).

In this light, it's also important to understand the increasing involvement of China in Arctic governance and how it significantly amplifies the intricacies of administering this already strategically important region (Depledge, 2016). Beijing's calculated pursuit of coalition building approach, often through strategic partnerships and investments with particularly its long-time ally Russia, introduces a new dynamic that can contract with the established norms and priorities advocated by the rest of the Arctic countries. In this context, the evolving Arctic focused policies of China are inextricably tied to the broader and increasingly salient issue of non-Arctic States and their expanding footprint in the High North (Greaves, 2019). The growing interest and influence of these actors, ranging from economic engagement to scientific research and even aspirations for a greater say in regional affairs, present unique and multifaceted challenges for established Arctic governance structures. These challenges extend beyond traditional inter-State relations, potentially escalating concerns related to the activities of non-State extremist groups who might seek to exploit the region's increasing accessibility and geopolitical fluidity (Depledge, 2016).

Consequently, the burgeoning presence and interests of non-Arctic States, exemplified by China's strategic positioning, have given rise to a new set of complex issues at the nexus of fostering international cooperation within the Arctic and addressing evolving security concerns. These issues necessitate navigating a delicate balance between approaches that seek to integrate previously siloed security and strategic considerations into the discourse of cooperative Arctic action, and those that prioritize the reinforcement of Arctic sovereignty and the rights of Arctic nations in the face of increasing external interest. Simultaneously, all these considerations must be carefully weighed against the overarching global desire for robust environmental protection and the preservation of peace and stability in a region of growing geopolitical significance (Depledge, 2016).

In conclusion, the swift and far-reaching environmental transformations in the Arctic have not only exposed vulnerabilities but have also fundamentally altered the region's geopolitical calculus, injected novel security considerations and intensified great power rivalry. The dramatic opening of new sea lanes and access to previously inaccessible resources has effectively transitioned the Arctic from a predominantly cooperative sphere to a more competitive and multipolar arena, drawing in a wider array of State and non-State actors. This interplay of environmental change acting as a driver of geopolitical shifts and the escalating potential for military activity forms the critical context for the subsequent section. That section will provide an historical overview of Arctic militarization, examining its evolution in the pre-Cold War and post-Cold War eras as a direct response to these very environmental and geopolitical pressures.

4. Evolution of Arctic Militarization: A Historical Overview of Russia and NATO

Building upon the preceding discussions that have established the contemporary resurgence of great power competition in the Arctic and the historical context of its Cold War militarization, this section delves further into the Arctic's historical trajectory. It examines the region's pivotal role as an essential

theater of defense strategy, bitter ideological struggle, and intense military dueling between the United States and the Soviet Union during the Cold War. The unique geography of this area, serving as a potential northern route connecting the two superpowers, a remote yet resource-rich zone, and a critical node in military infrastructure, imbued the Arctic with geostrategic significance crucial for the traffic of supplies, technology, and intelligence.

This section will explore how the Cold War transformed the Arctic into a de facto fighting zone, with each bloc significantly amplifying its military assets and deploying sophisticated surveillance systems to constantly monitor its adversary. Subsequently, the section will analyze the significant paradigm shift that occurred in the post-Cold War era, characterized by a notable transition towards collaborative scientific research, economic integration, and a heightened focus on environmental concerns, fundamentally altering the Arctic's strategic landscape, albeit temporarily.

4.1. The Arctic During the Cold War

The Arctic region proved itself to be an essential Cold War theater of defense strategy, bitter ideological struggle, and military dueling pitting the United States against the Soviet Union. The geography of this area, as a northern route connecting the two superpowers, a remote but resource rich zone, and its importance as a node in military infrastructure gave the Arctic a geostrategic significance critical to the traffic of supplies, technology, and intelligence. The Cold War made the Arctic into a fighting zone, with each bloc pumping up the military assets and surveillance systems to always monitor its adversary.

Figure 1: The GIUK Gap and the Soviet Northern and Baltic Fleets During the Cold War



Source: From *A Cold War Conundrum: The 1983 Soviet War Scare*, by B. B. Fischer, 1997, *Center for the Study of Intelligence*. In the public domain.

The Arctic was especially important to the Soviet Union because of the Kola Peninsula, home to the Soviet Northern Fleet and the only year-round ice-free port in the European region of the USSR. The best access to the Atlantic Ocean for the Soviet Union was, this naval base, making its control essential for the USSR's ambitions of power projection. Under the icy waters Soviet submarines were hidden and operated as the backbone of the Soviet Union's second-strike nuclear capability, providing

an important foundation of mutually assured destruction (MAD) and underpinning Cold War deterrence. Further fortified, however, was this second-strike capability as the Soviet Union expanded its naval power in the Arctic beginning in the early 1960s, by establishing a network of bases and patrol routes. The Soviet emphasis on the Arctic as a secure bastion of naval operations reflected the region's centrality in the USSR's broader military and strategic interests (Østerud & Hønneland, 2014).

For the United States and its NATO allies, the Arctic was essential to securing Western control over sea routes between Europe and North America. Vital to US military planning during the Cold War was its use of the Arctic Ocean's strategic maritime corridors, especially those leading to the Greenland – Iceland – United Kingdom (GIUK) gap, as these routes would serve as an essential supply line in the event of conflict in Europe (see Figure 1). During the Second World War, the United States and Denmark formalized an agreement under which the former could establish military bases in the Danish territory of Greenland, this agreement was later expanded, solidifying the Atlantic alliance in the High North. The Arctic islands of Greenland and Iceland were of enormous importance due to the U.S. bases at Thule (an air base) and Keflavik (a naval air station) respectively; these military establishments served as critical points for monitoring Soviet movements and intercepting possible threats to the West. NATO's presence in these Arctic areas, backed by advanced networks of air and sea patrols, and highly technological surveillance systems, was a direct counterbalance to Russian ambitions in the Arctic (Østerud & Hønneland, 2014).

However, Greenland and Iceland's military bases were not the only ones NATO established in the Arctic. The Alliance developed sophisticated surveillance and radar systems – including supersonic aircraft, satellites, and submarines – that were constantly monitoring Arctic waters and airspace, further underscoring the area's importance as a security buffer. In Denmark and Norway, as well as in the already mentioned Greenland and Iceland, NATO and the United States deployed radar stations and early-warning systems, and later the AWACS airborne radar aircraft, in order to monitor possible Soviet activities in the High North. Danish and Norwegian territories were particularly significant, as their proximity to the Soviet Arctic coast allowed for an early-warning defense against any Soviet incursions into NATO-controlled areas. The NATO base in the Faroe Islands also contributed to these efforts, while the most northern parts of the Scandinavian Peninsula became heavily militarized (Østerud & Hønneland, 2014).

Moreover, the Arctic's extreme environment and remote location did not deter the Cold War superpowers from asserting influence in the region through various displays of power. American and Soviet intelligence agencies closely observed each other's Arctic maneuvers, collecting information on military buildup and testing how to respond to possible intrusions. The polar basin, including areas of the Arctic Ocean and its surroundings, served as a battleground for the development of military technology. Both, the Soviet Union and the United States, patrolled the icy waters, developing new satellite and radar technologies to compensate the extensive and difficult topography of the Arctic region.

4.2. The Arctic After the Cold War

After the Cold War came to an end, the Arctic lost part of its strategic and military importance. During the 1990s, once the Soviet Union was officially dissolved, geo strategic confrontation was replaced by research cooperation, economic integration, and a more civilian agenda of climate change. This shift marked the Arctic's emergence as a distinctive international region.

This period, often referred to as the first “Arctic boom” (Heininen, 2011) of the post Cold War era, observed the High North's evolution into its own international region with identity and priorities. The aftermath of the Cold War was characterized by a sudden shift from confrontation to collaboration between States, in this context, the Arctic countries that were once adversaries, became close partners in addressing shared challenges and opportunities in the new millennium (Heininen, 2011).

A turning point in this shift was the rise of circumpolar cooperation between nations. Indigenous organizations and sub-national governments emerge as key players in this new geopolitical landscape, advocating for policies that reflected their own priorities and values in the polar regions, so in consequence, collaborative efforts between States and these new actors aimed at addressing the unique challenges faced by the Arctic. These efforts were institutionalized in 1991 with the Rovaniemi Declaration, which launched the Arctic Environmental Protection Strategy, a framework in which environmental concerns in the High North were at the forefront of regional policing. This process ended with the establishment of the Arctic Council in 1996, an intergovernmental forum dedicated to promoting cooperation (Heininen, 2011).

The transformation of the Arctic after the Cold War was also marked by the evolving relations with the global community. As globalization intensified, the Arctic's strategic importance began to change, it was no longer considered as solely a site of military confrontation, but a new bridge of cooperation between the circumpolar North and the rest of the world. This new dynamic was reflected in growing international interest in Arctic resources, as well as in the region's role as a barometer for global environmental challenges, especially climate change (Heininen, 2011).

Regardless of these advances in international cooperation, the Arctic faced challenges that complicated its transition to a peaceful future. Disputes over maritime routes, the impact of climate change, and the different pressures of resource exploitation presented ongoing issues for regional governance. However, even with all of those factors, the post Cold War Arctic demonstrated a remarkable capacity for resilience and adaption to the constant changes of international politics.

The transition from the so called "power politics" to a more cooperative approach marked the departure of the High North from the adversarial dynamics of the Cold War. This new model of governance emphasized the importance of dialogue, shared responsibility, and mutual trust, so the Arctic became a region where former historic rivals were able to work together in order to achieve common goals, reflecting a broader trend towards multilateralism and cooperation in international relations (Heininen, 2011).

In summary, the Arctic's journey from a heavily militarized Cold War arena, defined by the strategic competition between the US and the USSR, to a post-Cold War period emphasizing cooperation and environmental concerns, illustrates a significant fluctuation in the region's security dynamics. However, the legacy of the Cold War's strategic importance and the inherent geopolitical factors have not entirely dissipated. As the following sections will explore, the cooperative spirit of the immediate post-Cold War era has increasingly been challenged by a renewed focus on strategic competition and military buildup in the Arctic, driven by factors such as climate change and resource access. This historical overview provides a crucial foundation for understanding the contemporary resurgence of militarization in the Arctic and its implications for international security and the evolving rivalry between Russia and NATO in the region.

5. Current Military Strategies and Capabilities in the Arctic

5.1. Assessment of NATO and Russia's Military Capabilities in the Region

5.1.1. NATO

As previously mentioned, NATO's presence in the Arctic is shaped by the alliance's commitment to deterrence, collective defense, and strategic mobility in the High North (NATO, s. f.).

Land Power: Arctic Warfare Readiness and Deployment

NATO's land forces in the Arctic focus on high – readiness warfare and light infantry units capable of operating in the extreme cold weather of the polar regions. Here Norway plays a pivotal role as a staging ground for the Alliance's Arctic operations, hosting pre – positioned US Marine Corps equipment and rotational forces under the Marine Rotational Force – Europe (MRF-E) (Strauss et al., 2022; Wegge, 2022).

The Norwegian Army, integrated with NATO's Cold Response exercises, emphasizes mobility, defensive fortifications, and interoperability with allied forces. On the other hand, Finland and Sweden, being the newest member States of the North Atlantic Alliance and also Arctic nations, contribute additional capabilities, including Arctic adapted mechanized infantry and rapid reaction forces specialized in winter warfare which are essential to NATO's military efforts in the region.

Key NATO land power capabilities in the Arctic include:

- Arctic training and exercises: operations such as the Trident Juncture and Cold Response simulate large- scale conflict scenarios in the High North, testing allied coordination under extreme Arctic weather conditions.
- Pre – positioned equipment: the US Marine Corps Prepositioning Program – Norway (MCPN – N) stores advanced weaponry, armored vehicles, and logistics to ensure rapid deployment in the High North.
- High – readiness brigades: Norway's Brigade Nord, together with Finnish and Swedish units, forms the backbone of NATO's Arctic land force, with a special emphasis on mobility and defensive operations in winter conditions.

Naval Capabilities: Securing the Maritime Domain

NATO's naval forces, led by the US Navy's 2nd and 6th fleets, maintain a persistent presence in Arctic waters, especially in the GIUK gap, the Norwegian Sea, and the rest of the Arctic Ocean in order to ensure maritime control and anti-submarine warfare dominance.

Key naval capabilities in the Arctic include:

- Naval exercises: operations such as Dynamic Mongoose and Formidable Shield enhance ASW and integrated missile defense capabilities in Arctic waters.
- Arctic – Class warships: the Royal Norwegian Navy and allied forces deploy ice – capable warships to support maritime operations in the Arctic.
- Carrier Strike Groups (CSG): a Carrier Strike Group is a flexible naval force that is capable of operating in confined waters or in the open ocean, during day and night, and in all weather conditions. The American Navy regularly deploys CSGs to the High North for force projection and power deterrence.
- Anti – Submarine Warfare (ASW): anti-submarine warfare is a branch of underwater warfare that primarily uses surface warships, aircraft, submarines, or other platforms, in order to find, track, and deter / damage or destroy enemy submarines. NATO's naval forces utilize P-8 Poseidon maritime patrol aircraft, SSN – class attack submarines, and ASW capable frigates to counter Russian submarine activity in Arctic waters.

Air and Space Power: Strategic Surveillance and Defense

The alliance has reinforced its air and space defense posture in the High North, integrating a series of fifth-generation fighter aircraft, early warning radar systems, and space-based reconnaissance assets in order to monitor potential adversary activity in the Arctic.

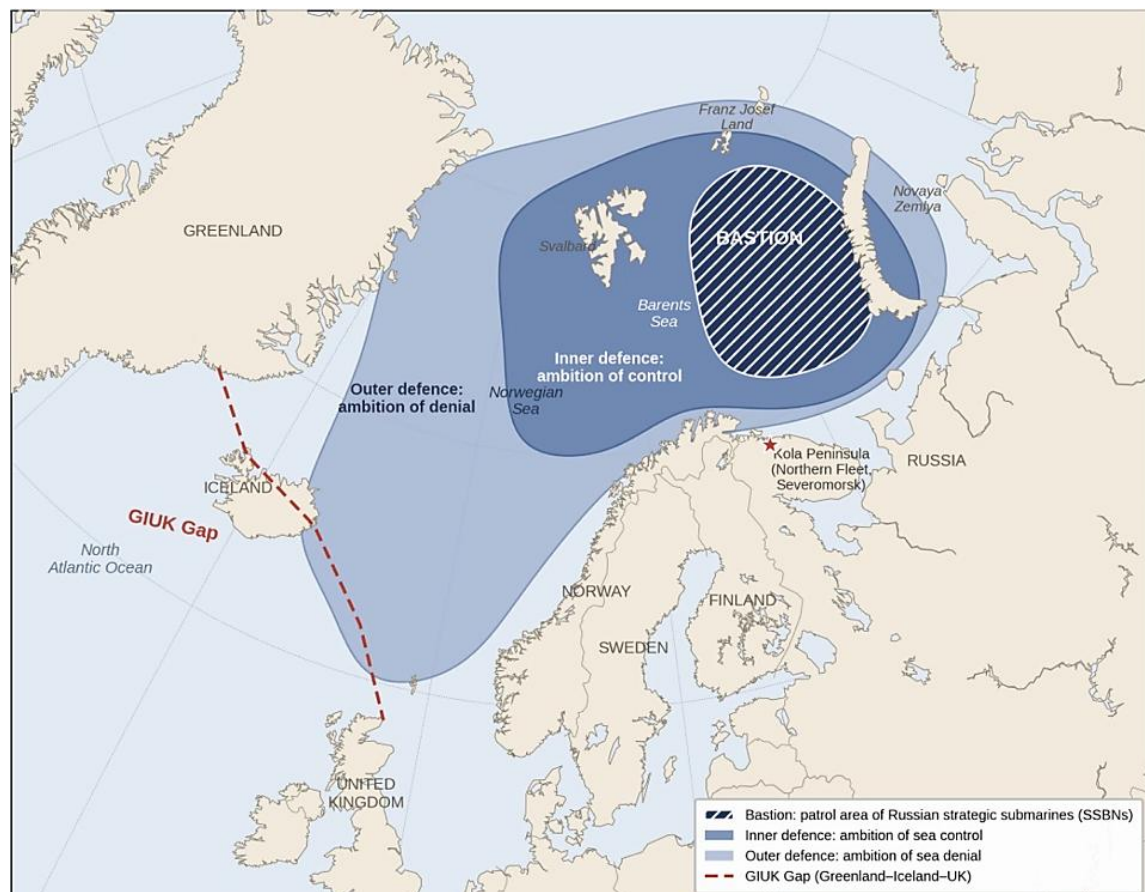
Key Air and Space capabilities in the Arctic include:

- Fighter Deployments: F-35 fighters operated by the U.S. Air Force in Alaska and the United Kingdom, and by the Royal Norwegian Air Force at Ørland, provide advanced multi-role capabilities to counter Russian aerial incursions in the polar region.
- Integrated Air Defense Systems: NATO member States have deployed Patriot and NASAMS air defense systems over the years in order to enhance regional security.
- Aerospace Surveillance systems: satellite systems such as the Wideband Global SATCOM (WGS) constellation and space-based infrared architectures such as Overhead Persistent Infrared (OPIR) support communications and early warning of missile launches in the High North.
- Electronic Warfare Countermeasures: NATO is investing in electronic warfare (EW) capabilities in order to mitigate GPS jamming and cyber threats in the Arctic.

5.1.2. Russia

As previously established in this investigation, Russia has turned its focus to the Arctic driven by geopolitical tensions with the West, and strategic defense considerations.

Figure 2: Russia's Bastion Defence in the Barents Sea and the Approaches to the GIUK Gap



Source: Adapted from *On Thin Ice: UK Defence in the Arctic (HC 388)*, by House of Commons Defence Committee, 2018. Original map courtesy of the Norwegian Ministry of Defence.

Since the 2000s, Russia has significantly expanded its Arctic military footprint, including the modernization of Soviet era bases and the establishment of new military facilities in the High North (Boulègue, 2019; Paul & Swistek, 2022).

The Northern Fleet, headquartered in Severomorsk, has been restructured as a Joint Strategic Command (OSK Sever) to serve as the principal military force of the Kremlin in the Arctic region. This headquarters includes naval, air, and land capabilities, and it operates both nuclear-powered submarines (Borei – class SSBNs and Yasen – class SSGNs) and other surface combatants equipped with Kalibr and Oniks missiles, as well as maritime patrol aircrafts.

Examples of the Kremlin's military efforts in the High North are the 200th and 80th Arctic Motor Rifle Brigades, stationed in Pechenga and Alakurtti, these brigades are specifically trained for extreme cold weather operations similar to the ones in the Arctic, and are heavily equipped with DT-30PM all-terrain vehicles and Arctic-modified BTR-82A armored personnel carriers. Russia has also deployed S-400 (SA-21 Growler) and S-300 (SA-10 Grumble) missile systems at key polar bases along its Arctic coast, enhancing long-range air defense in this region. The Pantsir-SA (SA-22 Greyhound) and Tor-M2DT systems provide short-range protection for Russian military installations in the Arctic. In addition to this, many Russian Arctic facilities support both civilian and military functions, such as the Nagurskoye and Temp airbases, which can host MiG-31BM interceptors and other military aircraft.

One of the main elements of Moscow's Arctic strategy is the "Bastion" defense concept. This approach aims to create a secure zone revolving around the Kola Peninsula and the Barents Sea in order to protect the strategic nuclear assets Russia possesses in this area (Boulègue, 2019) (see Figure 2).

The Bastion strategy consists of advanced anti – ship and land – attack missile systems, including P-800 Oniks (SS-N-26) and Kalibr-NK (SS-N-30A) cruise missiles, deployed on the Bastion – P coastal defense systems and Northern Fleet surface vessels, extending Russia's ability to control maritime access of the peninsula. The multi-layered air defense network includes S-400 and S-300 systems, alongside A-50U airborne early warning aircraft, to monitor and secure Arctic airspace.

In addition to all of the above-mentioned military capabilities, the Arctic remains a critical operational area for Russia's submarine force, with Delta IV and Borei-class SSBNs operating from Gadzhiyevo naval base.

These Russian submarines conduct primarily under-ice patrols, leveraging Arctic acoustics for stealth operations in the icy waters. As previously mentioned along this study, the Northern Sea Route is a vital corridor for Russia's economic and military strategy, so Moscow has reinforced military presence along the route to secure its control, with increasing naval patrols and deployment of ice-capable military assets. In this context, the establishment of radar stations and coastal defense systems along the NSR underscores Russia's intent to exert greater sovereignty over this strategic waterway.

Some of the most important developments in Russia's naval Arctic strategy include the deployment of ice-class patrol ships such as the Project 23550 Ivan Papanin-class, designed to support control over NSR navigation, enhanced maritime surveillance through coastal radar installations and satellite-based monitoring systems, including the Arktika-M satellite constellation, and frequent Arctic naval drills by the Northern Fleet, such as Umka-2021, involving nuclear submarines surfacing through ice and combined arms operations in extreme conditions (The Independent Barents Observer, 2021a).

To sum it all up, While Moscow frames its actions as defensive, its capabilities suggest the potential for power projection beyond its borders. The integration of Arctic forces with broader strategic initiatives raises concerns about escalation risks and the potential for miscalculation in a highly contested environment. Specific concerns include an increased Russian presence near Norway's Svalbard archipelago and Finland's border, heightening tensions and leading to enhanced NATO Arctic deployments, submarine patrols through the GIUK Gap, which challenge Western naval dominance in the North Atlantic, and Russia's Arctic posture, which includes electronic warfare capabilities such as Murmansk-BN long-range jamming systems that potentially disrupt NATO communications (Paul & Swistek, 2022).

5.2. Development of Military Infrastructure

Having already assessed both Russia's and NATO's military capabilities in the Arctic, this section turns its focus to the extent and strategic importance of Arctic military infrastructure, while specifically addressing its development and implications for regional security.

5.2.1. NATO's Expanding Infrastructure

As previously mentioned, NATO's Arctic strategy revolves around deterrence, rapid response, and interoperability among Allied forces. Norway being the main centerpiece of NATO's Arctic military infrastructure, hosting key bases and pre-positioned U.S. Marine Corps equipment under the Marine Rotational Force-Europe. Examples of Norway's presence in the region are the Porsangermoen and Setermoen training centers for Arctic warfare, two of the most important military bases in the High North, and the Ørland and Evenes Air Bases which are centered around supporting F-35 fighter deployments (Strauss et al., 2022; Wegge, 2022).

Surveillance and early warning capabilities have also been reinforced in the Arctic through the Vardø X-band radar, which provides real-time intelligence on Russian military activity in the region and gives the Alliance more information about the Kremlin's plans for the Arctic. The radar, combined with Norway's growing naval capabilities—including Arctic-class warships and anti-submarine warfare (ASW) assets—ensures NATO maintains strategic oversight of Arctic waters.

On another note, Canada's contribution to NATO's Arctic defense is also crucial to the Alliance presence in the Arctic, including the North Warning System, a network of radar stations that monitors aerial threats across the North American Arctic region (Bouffard et al., 2020). Forward operating locations such as Inuvik and Iqaluit allow for the rapid deployment of fighter aircraft in response to potential incursions.

Another country that is crucial to the Alliance's success in Arctic control is Denmark. The Scandinavian country maintains its presence in the region through Greenland, which continues to play a crucial role in NATO's Arctic surveillance efforts. The Joint Arctic Command in Nuuk coordinates Danish and allied operations, ensuring regional security while supporting scientific research and emergency response missions.

5.2.2. Russian Arctic Military Infrastructure

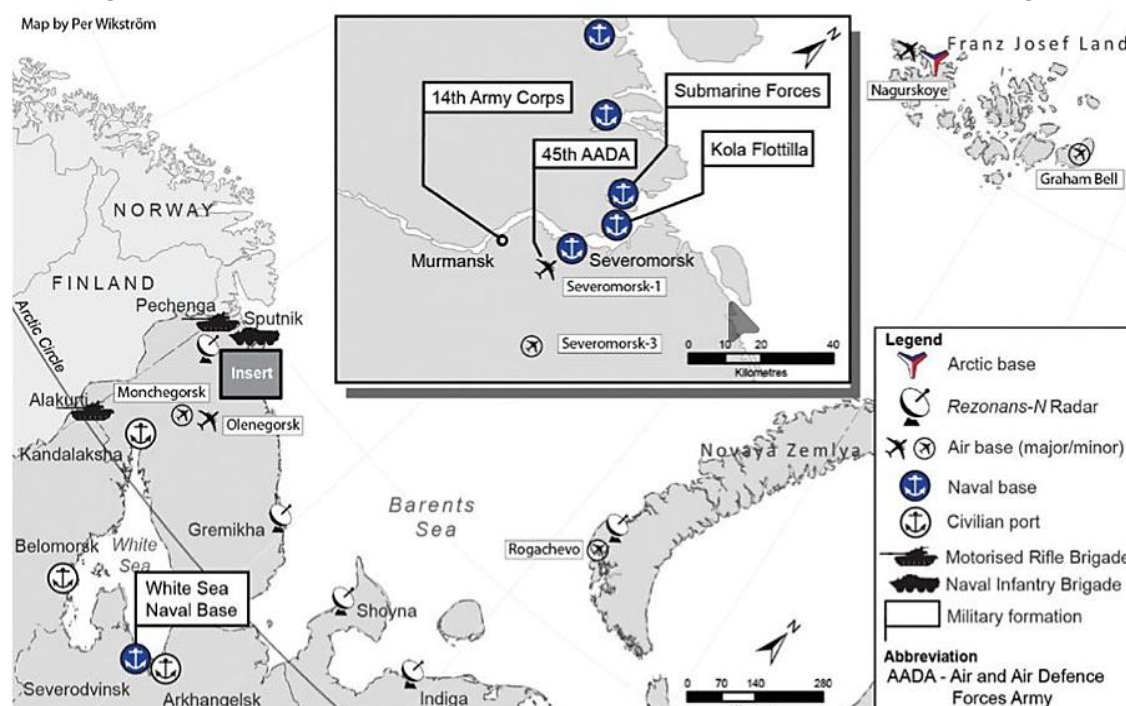
Russia maintains the most extensive and sophisticated military infrastructure in the Arctic, focusing its efforts on control over strategic naval routes and the defense of its nuclear deterrent forces (Boulègue, 2022; Paul & Swistek, 2022). As previously mentioned, the Kola Peninsula is the core of Russia's Arctic military presence, hosting the Northern fleet's headquarters in Severomorsk.

The Gadzhiyevo Naval Base, home to Borei – class SSBNs, also plays a vital role in Russia's second – strike nuclear capability, with expanded missile storage bunkers supporting a growing arsenal of intercontinental ballistic missiles (ICBMs).

However, Russia doesn't only focus on the Kola Peninsula, Moscow has also significantly upgraded several of its Arctic airbases (Nagurskoye on Franz Josef Land, Rogachevo on Novaya Zemlya, and Temp on Kotelnny Island), these facilities have the potential for supporting fighter aircrafts, bombers, and other transport planes, making the Kremlin's army capable of rapid deployment across the High North (see Figure 3).

Air defense forces have also been heavily strengthened with the deployment of S-400 and S-300 missile systems at key strategic locations along the Arctic coast, creating a multi – layered network of bases capable of deterring Western aerial incursions on Russian airspace

Figure 3: Selected Northern Fleet and Civilian Infrastructure in the Barents Sea Region



Source: Reprinted from "The Russian Northern Fleet and the (Re)militarisation of the Arctic," by J. Kjellén, 2022, *Arctic Review on Law and Politics*, 13. Map by Per Wikström. CC BY 4.0.

5.2.3. Technological Advances and Future Military Infrastructure Developments

The future of Arctic military infrastructure will be shaped by technological advancements in surveillance, missile defense, and autonomous systems. Satellite constellations such as RADARSAT (Canada) and Arktika-M (Russia) provide enhanced maritime tracking and early warning capabilities. The integration of over-the-horizon radar systems in North America is expected to improve Arctic airspace monitoring.

Unmanned aerial and underwater systems are becoming increasingly important in Arctic military strategy. The deployment of long-endurance drones for Arctic reconnaissance enhances domain awareness, while autonomous underwater vehicles (AUVs) are being tested for under-ice operations. These technologies will likely play a pivotal role in Arctic security over the coming decades.

Hypersonic missile systems are also influencing military infrastructure planning. Russia's deployment of the Tsirkon hypersonic missile underscores the need for improved missile detection and interception capabilities among NATO States. In response, the U.S. and its allies are expanding their integrated air and missile defense networks, including the deployment of Patriot and NASAMS systems in Arctic regions.

As geopolitical tensions persist, Arctic States will continue to invest in military infrastructure to secure their strategic interests. The region's transformation into a theater of military competition highlights the need for ongoing modernization efforts, ensuring that Arctic forces remain capable of operating in one of the world's most challenging environments.

5.3. Recent Military Exercises and Strategic Operations

This section provides a detailed account on the current military exercises and strategic operations conducted by major stakeholders in the Arctic.

Given the historical context of Arctic militarization and the contemporary resurgence of strategic competition in the region, this analysis will focus specifically on the military activities and deployments of NATO and Russia in the Arctic between 2020 and 2025. This timeframe is crucial as it captures a period of heightened geopolitical tensions and increasing strategic interest in the Arctic, allowing for a focused examination of how these key actors have adapted their military postures and operational behaviors in response to the evolving security landscape. By concentrating on the recent military movements and strategic signaling of NATO and Russia, this study aims to provide a contemporary understanding of the ongoing militarization trend and its implications for international security in the High North.

5.3.1. NATO and Allied Arctic Operations (2020-2025)

Land and Air Exercises

During these recent years, NATO has heavily intensified its military presence in the High North through exercises and deployments involving Allied States such as the United States and Norway, together with partners such as Finland and Sweden.

In November 2020, U.S. Marines of Marine Rotational Force–Europe and Norwegian troops of Brigade Nord concluded a winter rotation in northern Norway with Exercise Reindeer II, a bilateral cold-weather exercise hosted by the Norwegian military (U.S. Marine Corps, 2020). Cold Response 2022, organized by the Norwegian Armed Forces, was the largest exercise of the series: around 30,000 troops from 27 nations, some 220 aircraft and more than 50 vessels took part (NATO, 2022; Norwegian Armed Forces, 2022). Its successor, renamed Nordic Response, was held in March 2024 as part of NATO's Steadfast Defender 2024; it involved about 20,000 troops and was the first edition with Finland as a NATO member (Joint Forces News, 2024; The Independent Barents Observer, 2024; Fabey, 2024).

NATO Allies have also intensified their air activity. In February 2021, four B-1B Lancer bombers of the 7th Bomb Wing and about 200 U.S. airmen deployed to Ørland Air Station in the first Bomber Task Force to operate from Norway (The Aviationist, 2021; Air Force Times, 2021). Between 29 May and 9 June 2023, Finland, Norway and Sweden hosted the Arctic Challenge Exercise 2023, which brought together around 150 aircraft from 14 nations, together with NATO AWACS aircraft. Although it was not a NATO exercise, it was one of the largest air exercises in Europe and illustrates the growing integration of allied air forces in the High North (Norwegian Armed Forces, 2023; NATO Allied Air Command, 2023).

Deployment of Military Assets

Bomber deployments have also become more frequent. B-2 Spirit bombers landed in Iceland for the first time in 2019; in August and September 2021 three of them operated from Keflavik Air Base for two and a half weeks, training with British Typhoons and Norwegian F-35s, and they returned to Keflavik in August 2023 (The Aviationist, 2023).

Norway's own air posture has also shifted: with the phase-out of the F-16 and the closure of Bodø Air Base in 2022, most of the Norwegian F-35s are now based at Ørland (Eye on the Arctic, 2023).

More recently, NATO has strengthened its command and control in the region. In October 2025 the Alliance opened a Combined Air Operations Centre (CAOC) in Bodø, Norway, its third such centre, which oversees air operations over the Nordic region, the Baltic Sea, the North Atlantic and the Barents Sea; in December 2025, the geographic boundaries of NATO's Joint Force Command Norfolk were extended to include Denmark, Finland and Sweden (Langford, 2025; NATO, s. f.).

5.3.2. Russian Military Operations in the Arctic (2020-2025)

Aerial and Maritime Exercises

Russia has also maintained a high operational tempo in the Arctic, combining naval exercises, weapons tests and long-range aviation activity around the Kola Peninsula and the Barents Sea (Boulègue, 2022; Paul & Swistek, 2022).

The most visible demonstration was Umka-2021, an Arctic expedition led by the Russian Navy around Franz Josef Land from 20 March 2021. In late March, three nuclear-powered submarines (two Delta IV and one Borei class) surfaced simultaneously through the ice within a radius of 300 meters, which the Navy's commander described to President Putin as a first in the history of the Russian Navy (The Independent Barents Observer, 2021a).

Missile Testing and Electronic Warfare

Russia has also used the waters of the Northern Fleet to test new weapons. On 4 October 2021, the Yasen-class submarine Severodvinsk carried out the first submarine-launched tests of the Tsirkon hypersonic cruise missile, firing from a surfaced position and later from a depth of 40 meters against targets in the Barents Sea (Cranny-Evans, 2021; The Independent Barents Observer, 2021b). This missile is a key component of Russia's modernized arsenal and is expected to enhance its strategic deterrence capabilities in the Arctic.

In addition to missile tests, Russia has expanded its electronic warfare capabilities in the region, including long-range systems designed to jam radio communications, such as the Murmansk-BN (Paul & Swistek, 2022).

The increasing frequency of military exercises in the Arctic suggests a long-term strategic focus on securing access to natural resources, controlling key maritime routes, and enhancing power projection capabilities. At the same time, China's attempt to present itself as a "near-Arctic state" and its expanding cooperation with Russia add a further layer of complexity to Arctic security dynamics (Anthony et al., 2021; Paul, 2024).

6. Implications for International Security and Strategic Rivalries

6.1. Impact of a Militarized Arctic on International Relations

El análisis de actores a través de la metodología MACTOR expone el grado de influencia o dependencia que tienen entre ellos y cómo encajan sus intereses unos con otros. Además, traduce las relaciones en convergencias y divergencias, revelando la estructura de alianzas subyacente y el lugar que ocupan los países en el mismo. Los resultados son consecuencia de una codificación del analista en dos matrices, una de influencia directa *actor × actor*, y otra de *actor × objetivo*. Consultar Anexo B para ver los objetivos desglosados y Anexo C para consultar las matrices MACTOR.

Este primer análisis revela dos hallazgos clave. El *primero* es que la motricidad es extra-regional, pues las fuerzas dominantes son ajenas al Mediterráneo Occidental y al Estrecho de Gibraltar. Es decir, las potencias que más mueven el sistema son China y EE. UU., que no pertenecen a la región: el destino del flanco sur lo deciden, en primera instancia, actores que no viven en él. Por el contrario, España-Marruecos-Argelia son potencias dependientes de EE. UU. y China. El *segundo* es que España parece tener alta fuerza, pero no responde a una capacidad propia, sino al dispositivo de Rota y Morón. Si este

se retirara, su fuerza real caería hasta cerca del; lo que evidencia su triple dependencia de la defensa estadounidense, el gas argelino y la cooperación migratoria marroquí.

6.1.1. The Impact of the War in Ukraine on the Arctic

The Russian invasion of Ukraine in February 2022 has had geopolitical, economic and strategic consequences beyond Eastern Europe. As has been demonstrated throughout this thesis, the Arctic has become increasingly strained by western sanctions and severance of international cooperation mechanisms against Moscow.

One of the most immediate impacts of the war has been the disruption of Arctic governance structures, like the Arctic Council. Russia's chairmanship of this council from 2021 until 2023 was effectively nullified on March 3rd, 2022, when the other seven Arctic States paused their own participation in all activities had anything to do with the Kremlin. This pause affected key cooperative projects, especially in climate change research, environmental protection, and sustainable development (Østhagen, 2023).

In addition to this, the Barents Euro-Arctic Council and the Council of the Baltic Sea States suspended all cooperation with Russia, further isolating Moscow from multilateral decision making. However, while treaty-based cooperation, such as the Central Arctic Ocean Fisheries Agreement continued, the level of engagement has deteriorated significantly since the beginning of the war in Ukraine.

On another level, Western sanctions, such as the ones issued by the EU have also severely impacted Russia's Arctic economic strategy, particularly in the development of LNG and oil projects, by restricting access to Western technologies, expertise and financing. In addition, since the Yamal and Gydan Peninsula's shipping activities, central to the Kremlin's commercial trades, have been severely delayed or even suspended, Russia's ambitions of becoming a major Arctic exporter have been heavily affected, forcing the country to turn to Asian markets and domestic resources (Østhagen, 2023).

Simultaneously, the North Atlantic Alliance's posture in the High North has experienced a visible shift since the beginning of the Ukrainian conflict, elevating NATO's strategic calculus in the area. The accession of Finland (April 2023) and Sweden (March 2024) to the Alliance has reshaped the geopolitical map of Northern Europe (NATO, s. f.), effectively surrounding Russia's northern western flank with allied States, and making Moscow the only Arctic country that's not part of the Northern Alliance. On another note, as stated in previous sections, military exercises in Norway, enhanced maritime surveillance, and increased coordination between Arctic NATO States have reinforced the already established collective defense strategies of the Alliance in the High North.

Russia, for its part, has continued to prioritize its Arctic military infrastructure as a strategic buffer and a vital component of its own nuclear deterrence agenda in the High North. Home to the Russian Northern Fleet and various nuclear missile submarines, the Kola Peninsula remains a heavily fortified area, making it the main base for arctic military exercises mainly focused on the operational readiness of Moscow's anti-access/area-denial (A2/AD) capabilities. Hence, this militarization has not only deepened the strategic divide with the West but also heavily contributed to a tense climate of mutual distrust between the two (Østhagen, 2023).

Correspondingly, the collapse of both environmental and scientific cooperation between Russia and NATO has profusely weakened the Arctic's institutional resilience. Up until the beginning of the War in Ukraine, collaborative efforts on topics such as climate change monitoring, biodiversity preservation, and indigenous peoples' rights were hallmarks of Arctic diplomacy; however, when Russia invaded Ukraine in 2022, these collective efforts were promptly suspended or, in the best of cases, curtailed.

The loss of these channels of cooperation has diminished transparency, undermined years long efforts, and reduced understanding between Arctic countries. In other words, the Ukraine war has

embedded the High North more deeply into global geopolitical rivalries, dismantling what were considered solid foundations for cooperation, and transforming the region from a clear space of mutual understanding into a central arena of strategic competition between Russia and NATO.

Against this backdrop, the following section examines potential avenues for risk reduction, crisis management, and de-escalation of conflict, all of which are considered crucial components to preventing further tensions in the Arctic region.

6.2. De-Escalation Measures in a Heavily Militarized Arctic

In light of the increasing militarization of the Arctic region and the consequent collapse of cooperative mechanisms between Arctic States as a result of the Russian invasion of Ukraine in 2022, the urgency for viable de – escalation measures have grown considerably. As has been previously demonstrated, the current security landscape in the High North is marked by deep mistrust between countries, intensifies Russian – NATO rivalry, and a prevailing risk of military escalation. In this context, confidence-building measures (CBMs) and arms control measures are reemerging not only as crisis management tools but also as foundational elements for restoring peaceful stability in the Arctic (MacDonald, 2024; Paul, 2024).

Historically, Arctic cooperation was based in shared interests between the Northern countries in topics such as environmental protection, sustainable development, and indigenous peoples' rights, however, a structured military dialogue was deliberately excluded from cooperation forums like the Arctic Council. In this context, which once vital venues for transparency and communication between Arctic States – Arctic Security Forces Roundtable and the Arctic Chiefs Defense Staff meetings – collapsed after Russia's annexation of Crimea in 2014 (MacDonald, 2024). Because of this, even though some conversations on the revival of these platforms were held, the West remains reluctant to re – engage with Moscow.

In order to address the void in Arctic cooperation that these past few years have experienced, scholars and policy experts such as Boulègue and Depledge (2021) have proposed a two-track oriented approach that safeguards the achievements of soft security cooperation while establishing a parallel forum for hard security dialogue (Boulègue & Depledge, 2021). Another proposal gaining traction in Arctic security policy making is the creation of an Arctic Security Cooperation Forum (ASCF) capable of formalizing military – to – military communication while also allowing the management of strategic tensions through information sharing, transparency, and behavioral harmonization between States (Zandee et al., 2020). Such a forum could facilitate the negotiation of an Arctic Military Code of Conduct (AMCC), a normative framework aimed at regulating military behavior in the Polar regions that could also include limitations on surprise exercises, live-fire drills, and operations near critical infrastructure (MacDonald, 2024).

Arms control initiatives have also been tailored to the Arctic in addition to confidence – building mechanisms. One of the most prominent proposals is the establishment of Anti – Submarine Warfare (ASW) free zones or SSBN sanctuaries, these measures seek to preserve the second-strike capabilities of nuclear powers by designating specific maritime areas as off – limits to submarine tracking and offensive maneuvers (Purver, 1983). As stated by scholars such as MacDonald (2024), establishing such zones would provide predictability and reduce the pressure to forward – deploy forces in provocative configurations, which could also help reduce the likelihood of misperception or miscalculation (MacDonald, 2024).

Given what has been said, the war in Ukraine has led to a near – complete breakdown of trust between Russia and the NATO members, further complicating the prospects for formal cooperation negotiations in an already complex area. Nevertheless, other ways of negotiations are still in place, Track 1.5 and Track 2 diplomacy have been suggested as a pragmatic entry point for re – establishing communication between the Kremlin and the West. Previous experiences, such as the Arctic Military

Environmental Cooperation (AMEC) in the 1990s, demonstrate that even amidst global tensions, collaboration on shared interests remains possible when framed in neutral or technical terms (MacDonald, 2024). Fundamentally, while the return to pre – 2014, and especially pre – Ukraine’s invasion, levels of trust between Arctic countries seems to appear improbable in the near future, initiating structured, Arctic centered CBMs could help mitigate tensions and reduce the risk of conflict escalation in the High North.

The next section explores the possible future outcomes of Arctic military strategies by evaluating the emerging strategic patterns in the region and considering whether the Polar region is witnessing the onset of a 21st Century Cold War logic or if it could still be hope for cooperation and peaceful development.

6.3. Future Perspectives: Is a New Cold War Emerging in the Arctic?

Looking forward, the accelerating impact of climate change and the deterioration of traditional cooperation structures are positioning the Arctic region at a crossroads reminiscent of Cold War dynamics. The once peaceful Arctic zone has been increasingly challenged by military buildups, geopolitical frictions, and international tensions, no longer making the High North a beacon of scientific collaboration and mutual understanding between the circumpolar States. Consequently, the question of whether the Arctic is entering a new Cold War is presented not as a mere speculation, but a logical observation based on patterns of State behavior.

Moscow’s role in shaping the future of the High North is particularly significant. Russia’s recent increase of its investment in Arctic military infrastructure, expansion of airbases and radar stations, and deployment of advanced systems along its northern coast, have been domestically seen as protective measures over its sovereignty and economic interests in the area, particularly around the Northern Sea Route. Concurrently, the Kremlin is expected to double down on its unilateral capabilities in the Arctic, relying on partnerships with non – Western countries, and furthering its worsening relations with the members of NATO (Boulègue, 2022; Huebert, 2019). One of the countries with which Russia is seeking closer partnership is China.

Although not an Arctic State, the country has recently declared itself as a “near – Arctic power”, and as a consequence is increasing its involvement in polar matters such as infrastructure investment, scientific missions, and diplomatic engagement via its Polar Silk Road initiative. In this context, the strategic partnership between Russia and China signals a new approach to Arctic strategy making in a multipolar High North (Anthony et al., 2021; Huebert, 2019).

However, Russia is not the only actor that is changing its approach regarding the Arctic, NATO countries are also undergoing a significant transformation. The accession of Sweden and Finland to the Alliance has expanded its influence in the region, closing in on Russia and making it the only Arctic State that isn’t part of the North Atlantic Treaty (NATO, s. f.). This development enhances NATO’s ability to project its interests and power, while also monitoring Russia’s activity across the North – Baltic – Arctic axis. In this circumstance, exercises such as Cold Response (renamed Nordic Response in 2024) underscore the alliance’s commitment to Arctic defense by deploying large scale troops, simulating conflict scenarios in the region, and operating joint exercises between ally forces. However, these maneuvers could also contribute to a regional arms race dynamic like the Cold War and consequently raising the risks of unintended escalation in the Arctic (Huebert, 2019).

In other matters, institutional fragmentation plays a key role in the complicated future outlook of the Arctic. The Arctic Council, once the cornerstone of cooperative governance, remains severely constrained by the diplomatic fallout from Russia’s invasion of Ukraine. Although limited scientific collaborations continue under treaty-based arrangements, like the Central Arctic Ocean Fisheries Agreement, the absence of structured political dialogue has left a vacuum (Østhagen, 2023).

Simultaneously to an already geopolitical tense environment, climate change also plays a crucial role in shaping the future of Arctic dynamics. The rapid warming of the icecaps is leading to environmental degradation, thawing permafrost, and rising sea levels, making living conditions for indigenous communities extremely challenging. From a strategic standpoint, global warming and climate change make the need for international cooperation more urgent, however, in the current geopolitical climate, meaningful and effective multilateral collaboration on environmental security remains elusive.

All things considered; the current geopolitical environment showcases that the Arctic is experiencing a process of rapid militarization. While not yet a clear theater of open military conflict has been established, the region is exhibiting early traits of a “cold confrontation” between once ally States. Whether this trend becomes entrenched or is still reversible will depend on factors such as evolution of NATO – Russia relations, the willingness of major powers to maintain limited channels of communication, or the role of non – State actors in governance contexts. As of now, the High North remains as both a mirror broader geopolitical tensions and a unique space perfectly suited for multipolar collaboration.

7. Conclusions

Through a systematic analysis of academic sources, policy documents, and theoretical perspectives, the study has addressed the core research questions concerning the drivers, consequences, and geopolitical dimensions of Arctic militarization.

First, regarding the first question “Has the militarization of the Arctic negatively impacted global and regional stability?”, the findings support Hypothesis 1 (H1): that Arctic militarization does indeed undermine international security by increasing the potential for armed conflict and regional instability. The study shows that the High North is shifting from a cooperation centric approach to a theater of military competition between Russia and NATO. Strategic factors such as the accessibility of new maritime routes, the abundance of untapped resources, and the region’s critical geostrategic position have triggered military deployments and infrastructure developments reminiscent of the Cold War era among the Arctic States. This intensification of military activity, particularly the absence of robust multilateral security mechanisms, has led to a rapid deterioration of mutual trust between the Arctic countries, elevating the risk of falling into a deeper security dilemma and accidental escalation of conflict.

Second, addressing the second question “Has the militarization of the Arctic intensified the strategic rivalries between Russia and NATO?”, the investigation confirms Hypothesis 2 (H2): that the increasing deployment of military assets and capabilities in the polar region has significantly contributed to the escalation of tensions between these two major actors. Russia’s expansive Arctic strategic policies, based on sovereignty assertion and military modernization, has prompted a corresponding response from the North Atlantic alliance, a response marked by enhanced exercises, surveillance, and a development of the military infrastructure in the area. This tense dynamic, analyzed through the lens of the security dilemma, demonstrates how even defensive postures can be perceived as threats, fueling an ongoing cycle of militarization and suspicion between once cooperative nations.

Finally, considering these findings, this thesis underscores the urgent need for renewed diplomatic engagement and strategic restraint in the Arctic. It is essential to establish new confidence building mechanisms, reopen communication channels between NATO and Russia, and promote arms control efforts that can help de-escalate tensions and prevent armed conflict in the High North. Moreover, this research lays the groundwork for further studies of Arctic security, and future research could explore empirical case studies of military incidents or exercises in the region. Ultimately, this study suggests that only cooperative and preventive diplomacy can steer the Arctic away from confrontation and towards a future grounded in peace, security, and sustainable development.

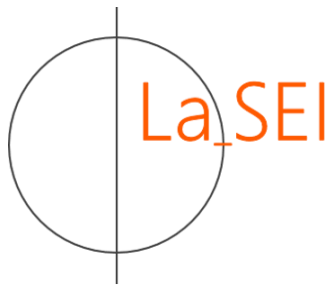
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